

Specifications

For

County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only Project

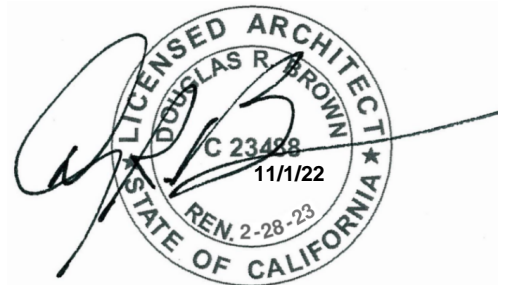
AKA: HOJ Building Elevator #3 and #7 Modernization

400 County Center

Redwood City, California 94063

San Mateo County CIP # PF02R

BID SET 12/5/22



County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Project

(AKA: HOJ Building Elevator #3 and #7 Modernization)

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SECTION 00 11 09 - BIDDING CALENDAR

NOTICE - THIS SUMMARY OF DATES IS FOR INFORMATIONAL PURPOSES ONLY.

The dates and times listed may not be relied upon or enforced. This summary does not form a part of the Contract Documents and does not establish contractual obligations.

NOTICE – THIS IS A SUMMARY ONLY AND DOES NOT LIST ALL DATES, TIMES OR TIME PERIODS CONTAINED IN THE BIDDING AND CONTRACT DOCUMENTS.

All bidders and contractors must refer to the actual documents for all applicable dates, times, and time periods.

| County of San Mateo Hall of Justice Building Elevators #3 and #7 Modernization - Project No. PF02R | | |
|---|-----------------------------------|---|
| Event | Date/Time | Location / Notes |
| Contract Documents Issued for Bid (Released & Available): | Dec. 5, 2022 | https://publicworks.smcgov.org/projects-out-bid |
| Mandatory Pre-Bid Meeting and Project Site Visit/Job Walk | Dec. 13, 2022 at 2:00PM | Hall of Justice, North Public Entrance 400 County Center Redwood City, CA 94063 See Notice to Contractors - 00 11 16 for instructions to attend. |
| Deadline for Questions | Dec. 23, 2022 by 5:00PM | Last Day for prospective Bidders to submit questions, in writing, by email to Authorized Contact Person: King Leong, kleong1@smcgov.org |
| Response to Questions – Issue Addenda | Jan. 6, 2023 | https://publicworks.smcgov.org/projects-out-bid |
| Bids Due: | Before Jan. 17, 2023 2:30PM | See Notice to Contractors Document 00 11 16 |
| Bid Opening Date: | Jan. 17, 2023 at 2:30PM | See Notice to Contractors Document 00 11 16 |
| Bid Evaluation Period: | Jan. 17 to 23, 2023 | N/A |
| Issue Notice of Intent to Award: | Jan. 24, 2023 | N/A |
| Protest Period: | Jan. 24 to 30, 2023 | See Instructions to Bidders Document 11 21 13 |
| Submission to County Board for Approval: | Feb. 14, 2023 | N/A |
| Anticipated Contract Award Date: | Feb. 15, 2023 | N/A |
| | | |

END OF DOCUMENT

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SECTION 00 11 16 - NOTICE TO CONTRACTORS

NOTICE IS HEREBY GIVEN that the Board of Supervisors of the County of San Mateo, State of California, will receive sealed bids for the following construction contract:

COUNTY OF SAN MATEO HALL OF JUSTICE TRACTION ELEVATORS
(MULTIPLE) ELEVATORS 3 & 7 ONLY (AKA ELEVATORS #3 AND #7
MODERNIZATION) PROJECT REDWOOD CITY, CA 94063
PROJECT NO. PF02R

Bids shall be received in accordance with the Contract Documents. The Contract Documents may be examined and/or downloaded at the Department of Public Works website at <https://publicworks.smcgov.org/projects-out-bid> (includes complete bid package).

A **Mandatory** Pre-Bid Meeting followed by a Project Site Visit/Job Walk is scheduled for **Tuesday, Dec. 13, 2022, at 2:00 PM (Pacific Time)**. The mandatory pre-bid meeting will meet at the Hall of Justice Building, outside the main (North) entrance, 400 County Center, Redwood City, CA 94063. Due to the nature of this project, it is mandatory for interested contractors to attend the pre-bid meeting and visit the project site to become familiar with project. **Bids will not be accepted from any prime contractor not present at the mandatory pre-bid meeting as evidenced on the attendance roster.**

Please review the Project Plans & Specifications in advance of the Mandatory Pre-Bid Meeting and Project Site Visit.

Interested Contractors are required to RSVP to the Authorized County Representative no later than **2:00 PM (Pacific Time), Monday, Dec. 12, 2022**, of their planned attendance (with number of persons) to the Mandatory Pre-Bid Meeting and Project Site Visit.

Contractors are expected to provide Personal Protective Equipment (PPE) for their personnel, as published by *Order No. c19-5c (Revised) of the Health Officer of the County of San Mateo*. The entire Order shall be followed by all who live and visit San Mateo County. Contractors shall comply with ALL applicable federal, state, and local health orders and ordinances and are required to continue to check for updates to such orders and ordinances.

Questions regarding this project should be directed to the Authorized Contact Person: King Leong,
Project Manager II – Capital Projects
Department of Public Works
555 County Center, 5th Floor, Redwood City, California 94063
Office Phone: (650)599-7268
Cell Phone: (650)208-9855

Bids shall be submitted using forms furnished and bound in the Project Manual of the Construction Documents and in accordance with the Instructions to Bidders Document 11 21 13 and shall be accompanied by a Bid Bond.

Bids shall be sealed and filed with the Clerk of the Board of Supervisors of the County of San Mateo at the Hall of Justice and Records, 400 County Center, 1st Floor, Redwood City, California, 94063 and filed Bids shall receive the Clerk's timestamp before **Tuesday, Jan. 17, 2023, 2:30PM (Pacific Time)**. All sealed bids officially received and filed with the Clerk of the Board of Supervisors will be opened in public shortly thereafter outside in front of the 400 County Center Building or at another location as designated by County.

The Board of Supervisors of the County of San Mateo, State of California, reserves the right to reject any and all bids, alternate bids, or unit prices and waive any irregularities in any bid received.

No bidder may withdraw his bid for a period of ninety (90) days after the date set for the opening thereof.

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 11 16 - NOTICE TO CONTRACTORS

Prospective bidders must be fully qualified, licensed (CSLB C-11 Elevator Contractor), certified, and insured to perform the Work requested for the Project. All work performed must meet all current applicable laws and regulations.

Pursuant to Labor Code Sections 1770, et seq., the Director of the Department of Industrial Relations has determined the general prevailing rate of wages in the County of San Mateo for each craft, classification, or type of workman needed to execute the contract. The prevailing rates so determined are based on an 8-hour day, 40-hour week, except as otherwise noted. Existing agreements between the Building Trades and the Construction Industry groups relative to overtime, holidays and other special provisions shall be recognized. It shall be mandatory upon the Contractor and upon any sub-contractors under him, to pay not less than the said specific rates to all laborers, workmen or mechanics employed by them in the execution of this contract.

Pursuant to State Senate Bill SB 854 (Stat. 2014, Ch. 28), effective January 1, 2015:

- (1) No Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 (with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)).
- (2) No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- (3) This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. All Contractors and Subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

Contractor and its subcontractor(s) agree to pay not less than prevailing rates of wages and be responsible for compliance with all the provisions of the California Labor Code, Article 2-Wages, Chapter 1, Part 7, Division 2, section 1770 et seq and section 1810 et seq. A copy of the prevailing wage scale established by the Department of Industrial Relations is on file in the office of the Director of Public Works, and available at www.dir.ca.gov/DLSR or by phone at 415-703-4774. California Labor Code section 1776(a) requires each contractor and subcontractor keep accurate payroll records of trades' workers on all public works projects and to submit copies of certified payroll records upon request.

A bid security bond will be required for the faithful performance of the contract in amount of not less than ten percent (10%) of the amount of the bid. See Document 00 61 16 Bid Bond.

A payment bond and performance bond will be required pursuant to California Public Contract Code Section 7103 and Section 10221 if a contractor is awarded a contract.

The Work to be performed, per approved plans consists, in general, of providing all labor, materials, tools, appurtenances, and equipment required, as well as any other items and details not mentioned above but required by the Contract Documents and as directed by the Director of Public Works.

The Hall of Justice Elevators #3 and #7 Modernization Project consists of: Renovation and modernization of two (2) traction elevators with related electrical and mechanical system upgrades; per San Mateo County Building Department approved plans dated June 3, 2022. See Document 00 21 13 Instructions to Bidders.

The Contract Time for completion of all the Work of the Project is Five Hundred Forty-Eight (548) calendar days, as defined as sufficiently complete in accordance with the Contract Documents.

Liquidated Damages are \$1000.00 per calendar day and shall be based on the Contract Time. Pursuant to California Government Code Section 53069.85, Owner may withhold Liquidated Damages from payments to the Contractor as such damages accrue, or, at Owner's discretion, withhold Liquidated

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Elevator #3 and #7 Modernization

SECTION 00 11 16 - NOTICE TO CONTRACTORS

Damages from any payments due or that become due pursuant to the Contract, including Retention and final payment.

END OF DOCUMENT 00 11 16

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SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

1. General

- 1.1 Bids shall be received in accordance with the Contract Documents. Each Bidder shall carefully read the complete Contract Documents including these instructions.
- 1.2 Before submitting a bid, each Bidder shall attend the mandatory pre-bid meeting and visit the project site and evaluate all conditions and limitations involved thereon as no allowance will be made because of the lack of such examination and knowledge.
- 1.3 Only licensed Contractors holding a valid and current Department of Consumer Affairs **CSLB C-11 Elevator Contractor** license and authorized to do business under the laws of the State of California and able to qualify as follows will be eligible to submit a bid.
- 1.4 Contractors shall meet the following qualifications for this project:
 - A. Contractors bidding to the County shall have a minimum five (5) years continuous experience as a prime contractor on mechanical replacement projects in California of comparable quality, size, complexity, and type.
 - B. Contractors bidding to the County shall have completed as the prime three (3) mechanical replacement projects of comparable quality, size, complexity and type, preferably in an operating government facility, and the projects have been successfully closed in compliance with the authority having jurisdiction (AHJ).
 - C. Contractors bidding to the County shall submit Superintendent's qualifications with a minimum of three (3) years supervising mechanical replacement projects of comparable quality, size, complexity, and type.
 - D. Subcontractors shall meet the above two requirements in A. and B. as it pertains to their Work.
 - E. Contractor is legally authorized to do business in the State of California.
 - F. Within two (2) business days of request by County, Contractor shall submit evidence of compliance to the above qualifications (in A, B., and C.) and a list of all project work performed, both complete and incomplete, within the previous five (5) years including the names and phone numbers of the Owners and Architects.
- 1.5 Contractors shall meet the following construction requirements:
 - A. Permits: All work is subject to inspection and acceptance of the San Mateo County Building Department.
 - B. Differing Site Conditions: Contractor is advised the work will be performed in an existing structure.
 - C. Work shall be performed between the construction hours of 7:00AM to 5:00PM, unless otherwise agreed upon between the County, Contractor and City of Redwood City due to extenuating factors.
 - D. Contractor is advised the County intends to maintain active utility operations specific to facility systems during construction. Existing systems and utility outages, and shutdowns shall be approved in advance by the County. Refer to Document 01 35 13.19 Special Project Procedures.
 - E. Contractor to coordinate with the County regarding providing temporary construction barriers and public wayfinding signage for duration of project.
 - F. Not used.

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

- G. Schedule: Contractor's attention is directed to the Contract Time and the requirement of the Contractor to achieve substantial completion of the work within said time period. Construction shall be completed within Contract Time defined as sufficiently complete in accordance with the Contract Documents to allow the Owner to occupy or utilize for its intended use.
- H. Not Used.
- I. Contractor shall be required to attend weekly construction project meetings with County and County's Representatives for the duration of the project. Contractor shall track meeting action items and provide updates per Contract Documents.
- J. Contractor's Personnel: Contractor shall submit within ten (10) working days from the execution of the Contract a list of names, addresses, and telephone numbers of key personnel who are to be contacted in case of emergencies on the job during non-working hour, including Saturdays, Sundays, and Holidays. Contractor shall update the list during the project and ensure the latest revision is posted in project office and provided to County Representatives.

All personnel who will have access to the work site may be required to wear photo identification issued by the County at all times. Photo identification will only be issued to each worker after successful completion of a background check clearance from the Sheriff's Office. The County will notify the Contractor within five (5) working days if any workers are deemed acceptable or unacceptable as a result of a background check clearance. The County reserves the right to reject personnel with current parole or probationary status and/or criminal records. County staff reserves the right to request a worker be excused from the job site for not wearing the appropriate photo identification issued by the County. No claims for delays will be allowed for failure on the part of the Contractor to enforce this requirement.

1.6 Contract Documents:

Questions regarding the Contract Documents, such as discrepancies, conflicts, omissions, doubt as to meanings, or regarding scope of work shall be referred to the County Authorized Contact Person. Inquiries must be received by the Authorized Contact Person by the deadline for questions, per Document 00 11 09 – Bidding Calendar. Inquiries will be answered in writing to all bidders of record if a response or written clarification is warranted in the opinion of the Owner. The Owner will not be responsible for oral clarifications. Regarding questions on the Contract Documents in the absence of written clarifications, Contractor is instructed to bid the more expensive method or materials.

2. Bid Proposals

- 2.1 Bids shall be submitted in accordance with the Contract Documents. Bid documents shall be submitted on County forms provided in these Contract Documents, and are to be properly and fully completed, including the designation of all subcontractors who will perform work or labor or render service on behalf of Contractor, in an amount in excess of one-half of one percent of the Contractor's total bid. Bidders must complete and submit all of the following documents with their Bid:

1. Document 00 41 13 – Bid Form and Designated Subcontractor List
2. Document 00 45 19 - Non-Collusion Declaration
3. Document 00 45 36.01 – EEO Certification of Compliance & Intent
4. Document 00 45 36.02 – EEO Program Contractor Report Form
5. Document 00 45.36.03 - EEO Program Questionnaire
6. Document 00 45 46 - Anti-Trust Laws Questionnaire

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

7. Document 00 61 16 - Bid Bond (Bid Security) Form
8. Document 00 45 26 – Workers Compensation Certification

- 2.2 No bid will be considered which makes exceptions, changes, or in any manner makes reservations to the terms of the Contract Documents.
- 2.3 Unit Prices on all classes of work as specified or required shall be submitted. Additions to or deductions from the contract sum shall be based on these unit prices. However, none will be acceptable that are above and beyond a fair and just amount and may be subject to third party estimator verification and reasonable adjustment before the signing of the Contract or bid disqualification.
- 2.4 Each bid must give the full business address of the bidder and be signed by the bidder with his usual signature. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership or by any authorized representative, followed by the signature and designation of the person signing. Bids by corporations must be signed with the legal name of the corporation, followed by the name of the State of incorporation and by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. Corporations must furnish a Certificate attesting to the existence of the corporation. The name of each person signing shall also be typed or printed below the signature. When requested by the Owner, satisfactory evidence of the authority of the officer signing on behalf of the corporation shall be furnished.
- 2.5 Bids are to be submitted in separate sealed envelopes. Envelopes shall be marked in lower left corner "Bid for" (provide contract title) and "Bid Opening" (provide bid opening date and time).

Deliver all bids to Clerk of the Board of Supervisors of the County of San Mateo at the Hall of Justice and Records, 400 County Center, 1st Floor, Redwood City, California, 94063 for the Clerk's timestamp of receipt before the day of **Jan. 17, 2023, 2:30 PM**.
- 2.6 All sealed bids officially received and filed with the Clerk of the Board of Supervisors of the County of San Mateo on or before the day of **Jan. 17, 2023, 2:30 PM** will be opened in public shortly thereafter outside of the 400 County Center building or at another location as designated at that time by County Clerk of the Board.
- 2.7 No bid will be considered which is received after the date and time set for the deadline to receive bids as stated herein, as determined by County.

3. Bonds and Insurance

- 3.1 Bids shall be accompanied by a cashier's check or a certified check payable to County, or a Bid Bond of not less than ten percent (10%) of the amount of the base Bid, plus all additive alternates as required. Required form of corporate surety, a Bid Bond Form, is provided by County and must be used and fully completed by Bidders choosing to provide a Bid Bond as security. The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.
- 3.2 Two bonds, as itemized below and in the forms presented in these Contract Documents, shall be furnished by the successful Bidder within ten (10) calendar days after notification of award, and by which documents shall be filed with the Department of Public Works, Capital Projects Division, 555 County Center, 5th Floor, Redwood City, California. The

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bonds shall be in the form of surety bonds issued by corporations duly and legally licensed to transact business in the State of California, satisfactory to the County. Premiums for said bonds shall be paid by the Contractor and maintained at Contractor's expense during the period prescribed herein for the completion of the work to be performed under the contract.

- 3.3 Performance Bond in amount of 100 percent (100%) of the Contract Amount to insure County during construction and for the guarantee period after completion against faulty or improper materials or workmanship and to assure County of full and prompt performance of Contract.
 - 3.4 Payment Bond in amount of 100 percent (100%) of the Contract Amount in accordance with the laws of the State of California to secure payment of any and all claims for labor and material used or consumed in performance of this Contract.
 - 3.5 Workers' Compensation Insurance, Comprehensive General Liability Insurance, and Motor Vehicle Liability Insurance and evidence thereof shall be furnished to County and shall be maintained by the Contractor as detailed in the General Conditions.
4. Wage Rates
- 4.1 The Director of Industrial Relations has determined the general prevailing rate of wages in the County of San Mateo.
 - 4.2 In accordance with the General Conditions, it shall be mandatory upon the Contractor and Subcontractors to pay not less than the said prevailing wage rates to all laborers, workmen, or mechanics employed by them in the execution of this Contract. When applicable, both Contractor and Subcontractor hereby agree to pay not less than prevailing rates of wages and be responsible for compliance with all the provisions of the California Labor Code, Article 2-Wages, Chapter 1, Part 7, Division 2, Section 1770 et seq and Section 1810 et seq. A copy of the prevailing wage scale established by the Department of Industrial Relations is on file in the office of the Director of Public Works, and available at www.dir.ca.gov/DLSR or by phone at 415-703-4774. California Labor Code Section 1776(a) requires each Contractor and Subcontractor keep accurate payroll records of trades workers on all public works projects and to submit copies of certified payroll records upon County's request.
 - 4.3 The Contractor's attention is further directed to the following requirements of State Senate Bill SB 854 (Stat. 2014, Chapter 28), effective January 1, 2015:
 - (1) No Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 (with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)).
 - (2) No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
 - (3) This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
 - 4.4 The Contractor is further advised that, pursuant to State Senate Bill SB 854 (Stat. 2014, Chapter 28), effective January 1, 2015, all contractors and subcontractors working on a contract for public work on a public works project (awarded on or after April 1, 2015) must furnish electronic certified payroll records to the Labor Commissioner.

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

5. Non-Discrimination

5.1 All Contractors with contracts over \$5,000 must comply with the County Ordinance No. 4026, Chapter 2.93 of the County of San Mateo Ordinance Code with respect to the provision on employee benefits. The ordinance mandates that Contractors provide to employees with domestic partners benefits equal to those provided to employees with spouses.

6. Contractor Employee Jury Service Ordinance

6.1 For contracts over \$100,000, Contractor shall comply with the County Ordinance No. 4324, Chapter 2.85 of the County of San Mateo Ordinance Code with respect to provision of jury duty pay to employees. Refer to Document 00 45 29 Jury Service and Wage Compensation.

7. Recycling and Diversion of Debris from Construction and Demolition Ordinance

7.1 All Contractors with demolition contracts exceeding \$5,000 in value; or construction contracts exceeding \$250,000 in value; or construction contracts consisting of at least 2,000 square feet shall comply with the County Ordinance No. 4099, Chapter 4.105 of the County of San Mateo Ordinance Code for with respect to construction and demolition debris. Refer to Document 00 62 63 Recycling and Diversion of Debris from Construction and Demolition.

8. Sole Source Products and/or County Vendors

8.1 The County has found and determined that the following item(s) shall be used on this Project based on the purpose(s) indicated. Public Contract Code Section 3400(b): A particular material, product, thing, or service is designated by specific brand or trade name for the following purpose(s):

(1) In order to match other products in use at other San Mateo County facilities.

(2) In order to obtain a necessary item that is only available from one source.

See Drawings and Specifications for specific project requirements.

8.2 Fire Alarm System and Product Manufacturer:

Siemens Industry, Inc.
25821 Industrial Boulevard
Hayward, CA 94545
Contact: Jon Meurer, jon.meurer@siemens.com
Phone: (510) 305-8510

8.3 Access Control Vendor:

Johnson Controls, Inc.
Contact: Andrew Aguero
Phone: (510) 600-5175

9. Contractor Selection and Contract Award

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

- 9.1 Before a contract is awarded, the Director of Public Works may, at his sole discretion, require from the proposed contractor evidence of his ability to faithfully, capably, and reasonably perform such proposed contract within the Contract Time and for the Contract Amount and may consider such evidence before making a decision on the award of such proposed contract.
- 9.2 The County reserves the right to reject any and all bid proposals, to contract work with whomever and in whatever manner, to abandon work entirely, or waiver of any irregularities in receiving bids.
- 9.3 The contract shall be awarded to the lowest and most responsible bidder as interpreted by the County in accordance with the Contract Documents. The Base Bid shall be used to determine the lowest bidder. Alternates may be accepted and awarded to the lowest and most responsible bidder, as determined above, in any combination or order.
- 9.4 Once a decision has been made to award a contract to a bidder, the County will issue a Notice of Intent to Award to notify all bidders of the selected bidder

10: Protests

Protests that do not comply with the protest procedures outlined below will be rejected.

10.1 Protest Eligibility, Format, and Address

(1) Protests or objections may be filed regarding the procurement process, the content of the solicitation, Construction Documents, or any addenda, or contract award.

(2) The County will only review protests submitted by an interested party, defined as an actual or prospective bidder whose direct economic interest could be affected by the County's conduct of the solicitation. Subcontractors do not qualify as interested parties.

(3) Submit written protests to the Department of Public Works by registered mail to:

Gary Behrens, Interim Deputy Director
Department of Public Works
County of San Mateo
555 County Center, 5th Floor
Redwood City, Ca 94063.

10.2 Protest Deadlines

Submit Protests with any supplemental materials by 2:00PM, Pacific Standard Time, (PST), as appropriate, on the deadlines set forth below. The date of filing is the date the County receives the protest, unless received after 2:00PM PST, or on other than a Business Day, in which case the date of filing will be the next Business Day. Failure to file by the relevant deadline constitutes a waiver of any protest on those grounds. Supplemental materials filed after the relevant deadline may be rejected by the County.

- (1) If relating to the content of the solicitation or to an addendum, file within five (5) Business days after the date the County releases the solicitation or addendum.
- (2) If relating to any notice of non-responsiveness or non-responsibility, file within five (5) Business Days after the County issues such notice.

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

- (3) If relating to intent to award, file within five Business Days after the County issues notice of Intent to Award. No protests will be accepted once actual award has been made.

10.3 Protest Contents

- (1) The letter of protest must include all of the following elements:
 - a) Detailed grounds for the protest, fully supported with technical data, test results, documentary evidence, names of witnesses, and other pertinent information related to the subject being protested; and
 - b) The law, rule, regulation, ordinance, provision or policy upon which the protest is based, with an explanation of the violation.
- (2) Protests that simply disagree with decisions of the Department of Public Works will be rejected.

10.4 Reply to Protest

The County will send a written response to the protestor and to any other party named in the protest.

10.5 No Stay of Procurement Action during Protest

Nothing in these protest requirements will prevent the County from proceeding with negotiations or awarding a purchase order or contract while a protest is pending.

11. Public Records

11.1 General

- (1) All bids, protests, and information submitted in response to this solicitation will become the property of the County and will be considered public records. As such, they may be subject to public review.
- (2) Any contract arising from this solicitation for bids will be public record.
- (3) Submission of any materials in response to this solicitation for bids constitutes:
 - a) Consent to the County's release of such materials under the Public Records Act without notice to the person or entity submitting the materials; and
 - b) Waiver of all claims against the County and/or its officers, agents, or employees that the County has violated a proposer's right to privacy, disclosed trade secrets, or caused any damage by allowing the bid or materials to be inspected; and
 - c) Agreement to indemnify and hold harmless the County for release of such information under the Public Records Act; and
 - d) Acknowledgement that the County will not assert any privileges that may exist on behalf of the person or entity submitting the materials.

11.2 Confidential Information

- (1) The County is not seeking proprietary information and will not assert any privileges that may exist on behalf of the proposer: Proposers are responsible for asserting any applicable privileges or reasons why a document should not be produced in response to a public record request.

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

(2) If submitting information protected from disclosure as a trade secret or any other basis, identify each page of such material subject to protection as "CONFIDENTIAL". If requested material has been designated as confidential, the County will attempt to inform the proposer of the public records request in a timely manner to permit assertion of any applicable privileges.

(3) Failure to seek a court order protecting information from disclosure within ten (10) days of the County's notice of the request to the proposer will be deemed agreement to disclosure of the information and the proposer agrees to indemnify and hold the County harmless for release of such information.

(4) Requests to treat and entire proposal as confidential will be rejected and deemed agreement to County disclosure of the entire proposal and the proposer agrees to indemnify and hold the County harmless for release of any information requested.

(5) Trade secrets will only be considered confidential if claimed to be a trade secret when submitted to the County, marked as confidential, and compliant with Government Code Section 6254.7.

END OF DOCUMENT 00 21 13

STIPULATED SUM SINGLE-PRIME CONTRACT

To: The County of San Mateo
State of California

From: _____
(Proper Name of Bidder)

For: County of San Mateo Hall of Justice Traction Elevators
(Multiple) Elevators 3 & 7 Only Project
400 County Center, Redwood City, CA 94063

Project Number: PF02R

Bid Opening Date: Jan.17, 2023, at 2:30PM

1. SCOPE OF BIDS – The undersigned, doing business under the name of

declares that the only persons or parties interested in this Bid proposal as Principals are those named herein; that this Bid is made without collusion with any other person, firm or corporation; that Principals have carefully examined the location of the proposed Work, the form of Agreement, and the Contract Documents therein referred to; that they propose, and agrees if this Bid is accepted, that Principals will contract with the County of San Mateo, in the form of the Agreement in the Contract Documents, and shall perform all the Work and furnish all the materials specified in the Contract Documents for the following amount(s). The base bid, unit prices, alternates, allowances, as applicable, shall include all labor, materials, equipment, supervision, overhead, profit, and incidentals necessary to complete the Work in accordance with the Contract Documents. The Base Bid will be used to determine the lowest responsible bidder.

2. BASE BID – Base bids shall include all Work specified in the Contract Documents and The Contractor agrees to furnish preventive maintenance during the period from the written award of this Contract or notice to proceed until the end of the 12-month warranty period.

. Write base bid in words and numbers. The base bid is the Contract Amount.

_____ Dollars
(\$_____)

3. UNIT PRICES: Not used.
A unit price shall be quoted for each of the following items of Work in accordance with the Contract Documents. Unit Prices shall apply to Work added to or deducted from the contract by Change Order. Unit Prices will not apply to Work in the Contract Documents unless specifically called out to be paid by a unit price.

4. ALLOWANCES: Not Used.

5. ALTERNATES: Not Used.

6. CONTRACT – If written notice (by electronic mail and U.S. Mail) of the acceptance of this Bid to the undersigned occurs within ninety (90) calendar days after the date of opening the bids, or any time thereafter before the bid is withdrawn, the undersigned will, within ten (10) calendar days after the date of such notice, execute and deliver a contract in the Form of Agreement provided in these Contract

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 41 13 - BID FORM

Documents and submit with Agreement required Payment and Performance Bonds in the form provided in these Contract Documents. The undersigned designates the address provided in Section 14 of this form to be the place of business to which such notice of acceptance may be mailed or delivered.

7. TIME OF COMPLETION – The undersigned agrees, if awarded the Contract, to complete this entire work within Contract Time specified in Document 00 11 16 Notice to Contractors.

8. BONDS – The undersigned agrees, if awarded the Contract to execute within ten (10) calendar days, two corporate surety bonds as called for in Document 11 21 13 Instruction to Bidders.

9. INSURANCE – Bidder’s Insurance as required for this Contract is placed with:

Bidder’s Workers Compensation Insurance is placed with:

Bidder’s All Other Risk Insurance is placed with:

10. ADDENDA – All Addenda during Bidding are bound with Contract Documents and issued during the time of bidding.

11. ADDENDARECEIPT – The receipt and acceptance of the following addenda is hereby acknowledged:

ADDENDUM NO. _____ DATED _____
ADDENDUM NO. _____ DATED _____
ADDENDUM NO. _____ DATED _____

12. This Bid may be withdrawn at any time prior to the scheduled time for the opening of bids or any authorized postponement thereof.

13. CONTRACTOR'S LICENSE – The undersigned agrees, if awarded the contract, to maintain and keep current through the completion of the contract the valid licenses for the work to be performed as required by the California Contractors License Law and all other applicable licensing requirements.

License No. _____ License Class _____ Expiration Date _____

14. By the signature below, the Bidder certifies, under penalty of perjury, the accuracy of the representations made in this Bid proposal.

Dated _____, 20____.

Company
Business Type _____Corporation _____Partnership _____Sole Proprietorship

State of Incorporation of Location of Business Registration: _____

Name of Bidder: _____

Type of Organization: _____

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 41 13 - BID FORM

Signed by: _____

Print Name of Signer: _____

Title of Signer: _____

Address of Bidder: _____

Phone: _____ Fax: _____

Email: _____

Taxpayer Identification Number of Bidder: _____

Department of Industrial Relations Registration Number: _____

If Bidder is a partnership, give full names of all partners:

If Bidder is a corporation, affix corporate seal.

Name of Corporation: _____

President/Secretary/Treasurer/Other: _____

15. DESIGNATION OF SUBCONTRACTORS – In compliance with the provisions of Sections 4100-4108 of the Public Contract Code of the State of California, and any amendments thereof, each Bidder shall set forth and list below the name and the location of each subcontractor who will be employed, and the kind of form that each will perform work or labor or render service to the Bidder in or about the construction of the Work in an amount in excess of one-half of one percent (1/2 of 1%) of the Bidder's total Bid to County, if the Contract is awarded to the Bidder. Any work that the Bidder fails to list, Bidder agrees to perform that portion itself or be subject to penalty under applicable law.

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

In case more than one subcontractor is named for the same kind of work, state the portion that each will perform. Vendors or suppliers of materials only do not need to be listed.

Reference: Notice to Contractor regarding State Senate Bill SB 854

DESIGNATION OF SUBCONTRACTORS - Please List All Subcontractor's

| DESIGNATED SUBCONTRACTOR LIST | | | | |
|---|---|--|--|---|
| Project No: PF02R Project Name: Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only | | | | |
| Name and City of Subcontractor (1) (4) | Description of Work: Reference to Contract Items (1) | Price Under Contract (2) (3) | State of California Contractor's License (2) | Department of Industrial Relations Registration No. (DIR) (2) |
| | | | | |
| | | | | |
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(1) Submit this information with sealed bid.

(2) This information shall be required of the two (2) apparent low bidders, no later than two days following the bid opening. **DO NOT INCLUDE THIS INFORMATION WITH BID.**

SECTION 00 41 13 - BID FORM

(3) Dollar amounts will be treated as proprietary and will solely be for the use of County staff. **DO NOT INCLUDE THIS INFORMATION WITH BID.**

(4) Submit full address of Subcontractors two days following bid opening.

Attach additional page as necessary. Indicate "none" or number of pages attached here: _____
pages attached.

END OF DOCUMENT 00 41 13

SECTION 00 45 19 - NON-COLLUSION DECLARATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

For: County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA
94063 Project Number: PF02R

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]."

Signature

Title

(ATTACH NOTARIAL ACKNOWLEDGMENT FOR THE ABOVE SIGNATURE)

END OF DOCUMENT 00 45 19

SECTION 00 45 26 - WORKERS' COMPENSATION CERTIFICATION

Contract Between County Of San Mateo (The "County" Or The "Owner") and _____ (The "Contractor" Or The "Bidder") for the construction of:

County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
Project Number: PF02R, (The "Contract" Or The "Project").

Labor Code §3700 provides:

"Every employer, except the State, and all political subdivisions or institutions thereof, shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation by one or more insurers, duly authorized to write compensation insurance in this State.
- (b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to employees."

I am aware of the provisions of §3700 of the Labor Code that require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Date: _____ 20_____

By _____
(Signature of Contractor)

Print Name: _____
(Name of Contractor)

_____ (Official Title)

(Labor Code §1861 requires that this Contractor certification must be signed and filed by the Contractor with the public agency prior to performing any Work.)

END OF DOCUMENT 00 45 26

SECTION 00 45 29 - JURY SERVICE AND WAGE COMPENSATION

COUNTY OF SAN MATEO
CONTRACTOR EMPLOYEE JURY SERVICE
ORDINANCE NO. 4324, CHAPTER 2.85

2.85.010 Definitions

For the purposes of this chapter:

- (a) "Contract" means a legal agreement between the county and a contractor for public works, consulting, or other services, or for purchase of supplies, material or equipment.
- (b) "Contractor" means a party who enters into a contract with the county for which the contractor receives consideration of \$100,000 or more.
- (c) "Contract Authority" means the Board of Supervisors or the head of the department or agency presenting the proposed contract to the Board of Supervisors.
- (d) "Employee" means any California resident who is a full-time employee of a contractor under the laws of California.
- (e) "Full time" means 40 hours or more worked per week, or a lesser number of hours if
 - (1) the lesser number is a recognized industry standard as determined by the County Manager, or
 - (2) the contractor has a long-standing practice that defines the lesser number of hours as full time. (Ord. 4324, 08/15/06)

2.85.020 Contractor Jury Service Policy

- (a) A contractor shall have and adhere to a written policy that provides that its employees shall receive from the contractor, on an annual basis, no less than five days of regular pay for actual jury service in San Mateo County. The policy may provide that employees deposit any fees received for such jury service with the contractor or that the contractor deduct from the employees' regular pay the fees received for jury service.
- (b) At the time of seeking a contract, a contractor shall certify to the County that it has and adheres to a policy consistent with this chapter or will have and adhere to such a policy prior to award of the contract.
- (c) The Board of Supervisors may waive the requirements of this chapter when it determines that it is in the best interests of the County for such reasons as follows:
 - 1. Award of a contract or amendment is necessary to respond to an emergency;
 - 2. The Contractor is a sole source;
 - 3. No compliant contractors are capable of providing goods or services that respond to the County's requirements;
 - 4. The requirements are inconsistent with a grant, subvention or agreement with a public agency;
 - 5. The County is purchasing through a cooperative or joint purchasing agreement.
- (d) Contractors should submit requests for waivers of the terms of this chapter to the Contract Authority or the County Manager.
- (e) The County Manager may reject a contractor's bid or proposal, or terminate a contract, if he determines that the contractor is in violation of the requirements of this chapter or was established, or is being used, for the purpose of evading the intent of this chapter.

SECTION 00 45 29 - JURY SERVICE AND WAGE COMPENSATION

(f) No contract shall be executed with a contractor unless such contractor is in compliance with this chapter. (Ord. 4324, 08/15/06)

2.85.030 Powers and duties of the County Manager

The County Manager's office shall have the authority to:

(a) Adopt rules and regulations, in accordance with this chapter and the Ordinance Code of the County of San Mateo, establishing standards and procedures for effectively carrying out this chapter;

(b) Receive notification from employees of contractors regarding violations of this chapter;

(c) Determine and recommend to the Board of Supervisors for final decision the imposition of appropriate sanctions for violation of this chapter by contractors including, but not limited to:

1. Disqualification of the contractor from bidding on or being awarded a County contract for a period of up to 5 years, and
2. Contractual remedies, including, but not limited to termination of contract.

(d) Impose other appropriate contractual sanctions for violations of this chapter;

(e) Allow for remedial action after a finding of noncompliance.

(g) Perform such other duties as may be required or which are necessary to implement the purposes of this chapter. (Ord. 4324, 08/15/06)

2.85.040 Date of Application

The provisions of this chapter shall apply to any contract awarded or amended on or after September 01, 2005, provided that if the contractor is then signatory to a collective bargaining agreement, this chapter shall only apply to any contract with that contractor which is awarded or amended after the effective date of the next collective bargaining agreement. (Ord. 4324, 08/15/06)

END OF DOCUMENT 00 45 29

SECTION 00 45 36.01 - EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS
CERTIFICATION OF COMPLIANCE WITH LAWS PROHIBITING DISCRIMINATION

THIS FORM MUST BE COMPLETED IN FULL AND SUBMITTED WITH THE BID

We are in compliance with the Equal Employment Opportunity Requirement of Executive Order 11246, Title VII of the Civil Rights Act of 1964, the California Fair Employment Practices Act, Section 503 of the Rehabilitation Act of 1973, and any other federal or state laws relating to equal employment opportunity and the provisions of Title 2, Chapter 2.50 of the San Mateo County Ordinance Code and the Board established guidelines implementing them.

We will not discriminate against any employee or applicant for employment based on race, religion, color, national origin, age, ancestry, physical or mental disability, sexual orientation, or sex. This pertains to the areas of recruitment, hiring, training, upgrading, transfer, compensation, and termination.

CERTIFICATION OF INTENT

We will develop and implement, during the course of the work concerned, an Equal Employment Opportunity Program of hiring and employment conducted without regard to race, religion, color, national origin, age, ancestry, physical or mental disability, sexual orientation, or sex of the applicants. With this certification we shall submit any and all information which may be required by the County in connection with this program.

Date: _____

Bidder/Company Name: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT 00 45 36.01

SECTION 00 45 36.02 - EQUAL EMPLOYMENT OPPORTUNITY PROGRAM
 CONTRACTOR REPORT FORM

THIS FORM MUST BE COMPLETED IN FULL AND SUBMITTED WITH THE BID

Project: County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only

400 County Center, Redwood City, CA 94063

Project Number: PF02R

Company Name: _____

Date: _____

RACIAL/ETHNIC MAKEUP OF THE COMPANY

Be sure to include the total of all employees in each classification in the first column, not just minorities. Report the number of employees enrolled in formal on-the-job (apprenticeship) training programs in parenthesis () for each classification.

| Minority Employees | | | | | | | | | | |
|--------------------|---------------------|-----------------------------------|-------|-------------------------------------|------------------------------------|-----------|----------|------------------------|-----------|------------------|
| Job Classification | Total All Employees | Ethnicity | | | | | | | | |
| | | American-Indian or Native Alaskan | Asian | Native Hawaiian or Pacific Islander | Black American or African American | Caucasian | Filipino | Hispanic or Latino (1) | Other (2) | Unidentified (3) |
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| Total(s) | | | | | | | | | | |

Ethnicity Notes:

- (1) "Hispanic" includes all persons of Mexican, South and Central American, Puerto Rican, Cuban or Spanish ancestry.
- (2) "Other" includes all others whose origin consists of two or more races other than Hispanic or Latino.
- (3) Use this category for employees who have chosen not to identify any race or ethnicity, including "Other".

END OF DOCUMENT 00 45 36.02

County of San Mateo – Hall of Justice Building
 Elevator #3 and #7 Modernization

EEOP REPORT FORM

SECTI 00 45.36.03 - EQUAL EMPLOYMENT OPPORTUNITY PROGRAM
QUESTIONNAIRE

THIS QUESTIONNAIRE MUST BE COMPLETED IN FULL BY AN OFFICIAL OF THE COMPANY AND
SUBMITTED WITH THE BID

For: County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA 94063

Project Number: PF02R

Company Name: _____

Name of Company Official: _____

Phone: _____ Date: _____

1. Yes No Have you read and are you acquainted with the Equal Employment Opportunity Requirement of Executive Order 11246, Title VII of the Civil Rights Act of 1964, Section 503 of the Rehabilitation Act of 1973, the California Fair Employment Practices Act and Title 2, Chapter 2.50 of the San Mateo County Ordinance Code?

2. Yes No Is it the policy of your company to recruit, hire, train, upgrade, transfer, compensate, and discharge without regard to race, religion, color, national origin, age, ancestry, physical or mental disability, sexual orientation, or sex?

3. Yes No Have you appointed an Equal Employment Opportunity Officer? Give his name, position in the company, office address, and phone number.

4. Yes No Does your employment advertising state that you are an Equal Opportunity Employer?

5. Yes No Have all recruitment sources been advised that all qualified applicants will be considered for employment without regard to race, religion, color, national origin, age, ancestry, physical or mental disability, sexual orientation, or sex?

6. Yes No Were any employees hired by means other than the union hiring hall in the past year?

How many? _____

What positions? _____

7. If non-union personnel are employed by the company, or if a position cannot be filled by the union hall, specify the advertisement and recruitment sources that are used. (For example, State HRD,

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTI 00 45.36.03 - EQUAL EMPLOYMENT OPPORTUNITY PROGRAM
QUESTIONNAIRE

newspapers, high schools, vocational schools, referral agencies/organizations, community groups).

8. How many apprentices do you employ? _____

How many of these are minorities? _____

9. _____ Yes _____ No Do you have a program for upgrading and counseling present employees?

Describe: _____

10. _____ Yes _____ No Do you have a collective bargaining agreement with a labor union or other organization?

Please list these groups: _____

11. What percentage of your work force is covered by union agreement? _____

12. _____ Yes _____ No Have you advised the labor union and/or worker organization of your company's responsibility under the Equal Employment Opportunity Program?

13. _____ Yes _____ No Does your company's collective bargaining agreement include a provision for non-discrimination in employment?

14. _____ Yes _____ No Have you notified all subcontractors submitting bids to you that they will be subject to the same minority employment requirements should you be the successful bidder?

15. Describe any previous experience with Equal Employment Opportunity Programs:

SECTI 00 45.36.03 - EQUAL EMPLOYMENT OPPORTUNITY PROGRAM
QUESTIONNAIRE

16. State what Equal Employment Opportunity Program you plan to take in connection with this project:

If your company has a written Equal Employment Opportunity Program now in effect, please attach a copy of it.

END OF DOCUMENT 00 45.36.03

I. CONTRACTOR INFORMATION

| | | | |
|------------------|--|----------------------|--|
| Contractor Name: | | Phone: | |
| Contact Person: | | Fax: | |
| Address: | | Number of employees: | |

II. EQUAL BENEFITS (check one or more boxes)

Contractors with contracts in excess of \$5,000 must treat spouses and domestic partners equally as to employee benefits.

- Contractor complies with the County's Equal Benefits Ordinance by:
 - offering equal benefits to employees with spouses and employees with domestic partners.
 - offering a cash equivalent payment to eligible employees in lieu of equal benefits.
- Contractor does not comply with the County's Equal Benefits Ordinance.
- Contractor is exempt from this requirement because:
 - Contractor has no employees, does not provide benefits to employees' spouses, or the contract is for \$5,000 or less.
 - Contractor is a party to a collective bargaining agreement that began on _____ (date) and expires on _____ (date), and intends to offer equal benefits when said agreement expires.

III. NON-DISCRIMINATION (check appropriate box)

- Finding(s) of discrimination have been issued against Contractor within the past year by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or other investigative entity. Please see attached sheet of paper explaining the outcome(s) or remedy for the discrimination.
- No finding of discrimination has been issued in the past year against the Contractor by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or any other entity.

IV. EMPLOYEE JURY SERVICE (check one or more boxes)

Contractors with original or amended contracts in excess of \$100,000 must have and adhere to a written policy that provides its employees living in San Mateo County up to five days regular pay for actual jury service in the County.

- Contractor complies with the County's Employee Jury Service Ordinance.
- Contractor does not comply with the County's Employee Jury Service Ordinance.
- Contractor is exempt from this requirement because:
 - the contract is for \$100,000 or less.
 - Contractor is a party to a collective bargaining agreement that began on _____ (date) and expires on _____ (date), and intends to comply when the collective bargaining agreement expires.
 - Contractor has no employees.
 - Contractor has no employees who live in San Mateo County.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind this entity contractually.

Signature

Name

Date

Title

SECTION 00 45 46 - ANTI-TRUST LAWS QUESTIONNAIRE

THIS QUESTIONNAIRE MUST BE COMPLETED IN FULL
AND SUBMITTED WITH THE BID

For: County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA 94063

Project Number: PF02R

Company Name: _____

In accordance with instructions from the State of California Attorney General's Office, with regard to California and Federal Anti-Trust Laws, answers to the following must be included with the bid.

1. _____Yes _____No Were bid depository of registry services used in obtaining subcontractor bid figures in order to compute your bid?

2. If the answer to No. 1 is "Yes" please list the subcontractors using a bid depository or registry service.

3. _____Yes _____No Did you have any source of subcontractor's bids other than bid depositories?

4. _____Yes _____No Has any person or group threatened you with subcontractor boycotts, union boycotts, or other sanctions to attempt to convince you to use the services or abide by the rules of one or more bid depositories?

Date: _____ Name: _____

Nature of the threats: _____

Additional comments: _____

END OF DOCUMENT 00 45 46

SECTION 00 52 13 - AGREEMENT FORM – STIPULATED SUM

THIS AGREEMENT, entered into this _____ day of _____, 20___, by and between the COUNTY OF SAN MATEO, a Political Subdivision of the State of California, hereinafter called the "County", and _____, hereinafter called the "Contractor".

WITNESSETH that the Contractor and the County, in consideration of the mutual covenants, considerations and agreements herein contained, agree as follows:

STATEMENT OF WORK – The Contractor shall furnish all labor and materials and perform all work for:

County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA 94063

Project Number: PF02R

in strict accordance with the Contract Documents as listed in Specification SECTION 00 72 13 - GENERAL CONDITIONS.

TIME FOR COMPLETION – The work shall be commenced on a date to be specified in the Notice to Proceed issued by the County. Construction shall be completed within **Five Hundred Forty-Eight (548) calendar days** defined as sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize for its intended use.

COMPENSATION TO BE PAID TO CONTRACTOR – The County will pay and the Contractor will accept in full consideration for the performance of the contract, subject to additions and deductions and procedures for payment as provided therein, the sum of _____ (\$ _____) which is the Contractor's Bid. The Contract as defined in paragraph 1.1 of the General Conditions constitutes the sole agreement of the parties hereto relating to said work and correctly states the rights, duties, and obligations of each party as of the document's date. Any prior agreement, promises, negotiations, or representations between the parties not expressly stated in this document are not binding. All subsequent modifications shall be in writing.

PREVAILING WAGE RATES - In accordance with the provisions of Section 1770 of the Labor Code, the Board of Supervisors of the County of San Mateo has ascertained the prevailing rate of wages applicable to the work to be done, which prevailing wage rates have been established as indicated in the Notice to Bidders and are incorporated herein by reference. The Contractor's attention is further directed to the following requirements of State Senate Bill SB 854 (Stat. 2014, chapter 28), effective January 1, 2015:

- (1) No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- (2) No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- (3) This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

IN WITNESS WHEREOF, the parties hereto on the day and year first above written have executed this agreement in three counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original thereof.

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 52 13 - AGREEMENT FORM – STIPULATED SUM

COUNTY OF SAN MATEO

A Political Sub-Division of the State of California

Attest:

By _____
President, Board of Supervisors

Michael Callagy, County Manager

Clerk of the Board of Supervisors

By _____
Contractor

END OF DOCUMENT 00 52 13

SECTION 00 61 13.13 - PERFORMANCE BOND FORM

(Note: Bond is 100% of Contract Price. Bidders must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That WHEREAS, the County of San Mateo, hereinafter designated as the "County," has awarded to _____ (CONTRACTOR'S NAME), hereinafter designated as "Principal," a contract dated _____ (CONTRACT AWARD DATE), hereinafter designated as the "Contract," which Contract is by this reference made a part hereof, for the work described as the:

County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA 94063
Project Number: PF02R

And WHEREAS, Principal is required to furnish a bond in connection with the Contract, guaranteeing the faithful performance thereof;

NOW THEREFORE, THESE PRESENTS WITNESSETH:

That the said Principal and the undersigned, (SURETY'S NAME), as corporate Surety, are held and firmly bound unto the County in the sum of

_____ Dollars (\$_____)
lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, that if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term of said Contract and any extensions thereof that may be granted by the County, with or without notice to the Surety, and during the life of any guarantee required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless the County as stipulated in the Contract, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.

No extension of time, change, alteration, modification, or addition to the Contract, or of the work required thereunder, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by the

Principal and Surety this _____ day of _____, 20_____.

Principal

Surety

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 61 13.13 - PERFORMANCE BOND FORM

Signature

Signature

Printed Name

Printed Name of California Agent Surety

Address of California Agent Surety

Telephone Number of California Agent Surety

(Affix Corporate Seal)

NOTE: Notary acknowledgement for Surety signatures and Surety's Power of Attorney and Certificate of Authority for Surety must be attached. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT 00 61 13.13

SECTION - 00 61 13.16 - PAYMENT BOND FORM

Contractor's Labor & Material Payment Bond

(Note: Bond is 100% of Contract Price. Bidders must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That WHEREAS, the County of San Mateo hereinafter designated as the "County," has awarded to _____ (CONTRACTOR NAME) hereinafter designated as the "Principal," a contract dated _____ (CONTRACTOR AWARD DATE) hereinafter designated as the "Contract," which Contract is by this reference made a part hereof, for the work described as the:

County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA 94063

Project Number: PF02R

And WHEREAS, pursuant to law, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by whom the Contract is awarded to secure the claims to which reference is made in Sections 9550 to 9566 and 9100 to 9364 both inclusive, of the Civil Code of California.

NOW THEREFORE, THESE PRESENTS WITNESSETH:

That the said Principal and the undersigned _____,
(Surety's Name)

as corporate Surety, are held and firmly bound unto all laborers, material men and other persons referred to in said statutes in the sum of

_____ Dollars (\$ _____)

lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the above bonded Principal, contractor, person, company or corporation, or his or its sub-contractor, fails to pay any claimant name in Section 9100 of the Civil Code of the State of California, or amounts due under the Unemployment Insurance Code, with respect to work or labor performed by any such claimant, that the Surety on this bond will pay the same, in an amount not exceeding the aggregate sum specified in this bond, and also, in case suit is brought upon this bond, a reasonable attorney's fee, which shall be awarded by the court to the prevailing party in said suit, and attorney's fees to be taxed as costs in said suit.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Section 9100 to 9364 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

This bond is executed and filed to comply with the provisions of the act of Legislature of the State of California as designated in the Civil Code, Sections 9550-9566 inclusive, and all amendments thereto.

Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

SECTION - 00 61 13.16 - PAYMENT BOND FORM

And the said Surety, for value received, hereby stipulates and agrees that no change will be made which increases the total Contract price more than twenty percent (20%) in excess of the original Contract price without notice to the Surety, then, this obligation to be void, otherwise to remain in full force and virtue.

Correspondence relating to this bond shall be sent to the Surety at the address set forth below.

IN WITNESS WHEREOF, this instrument has been duly executed by the

Principal and Surety this _____ day of _____, 20____.

Principal

Surety

Signature

Signature

Printed Name

Printed Name of California Agent Surety

Address of California Agent Surety

Telephone Number of California Agent Surety

(Affix Corporate Seal)

NOTE: Notary acknowledgement for Surety signatures and Surety's Power of Attorney and Certificate of Authority for Surety must be attached. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT 00 61 13.16

(Bid Security Form)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned,

_____, as Principal
("Principal"),

and _____, as Surety ("Surety"),
are hereby held and firmly bound unto the County of San Mateo in the State of California, as represented
by the County Board of Supervisors, hereinafter called the "Owner" in the sum of

_____ Dollars (\$ _____)
lawful money of the United States of America, for payment of which sum, well and truly to be made, we
hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

The condition of the above obligation is such that, whereas the Principal has submitted
to the County a certain Bid, attached hereto and hereby made a part hereof, to enter into a contract in
writing for the:

County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA 94063
Project Number: PF02R

in strict accordance with the Contract Documents.

NOW, THEREFORE,

- a. If said Bid shall be rejected, or, in alternate
- b. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the
Form of Agreement attached hereto and shall execute and deliver Performance and Payment Bonds in
the Forms attached hereto (all properly completed in accordance with said Bid), and shall in all other
respects perform the agreement created by the Acceptance of said Bid.

Then, this obligation shall be void; otherwise, the same shall remain in force and effect, it being
expressly understood and agreed that the liability of the Surety for any and all default of the Principal
hereunder shall be the amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety
and its bond shall be in no way affected or impaired by any extension of the time within which the County
may accept such Bid and said Surety does hereby waive notice of such extension.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their
several seals this _____ day of _____, 20__, the name and corporate seal of each
corporate party being hereto affixed and these presents duly signed by its undersigned representative,
pursuant to authority of its governing body.

In presence of:

(Individual Principal)

(Affix Corporate
Seal)

SECTION 00 61 16 - BID BOND

(Business Address)

By _____

Attest:

(Corporate Principal)

(Business Address)

By _____

(Affix Corporate Seal)

Attest:

(Corporate Surety)

(Business Address)

By _____

(Affix Corporate Seal)

The rate or premium on this bond is _____ per thousand.

Total amount of premium charge, \$ _____
(The above must be filled in by Corporate Surety.)

(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)

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

END OF DOCUMENT 00 61 16

SECTION 00 62 23 - RECYCLING AND DIVERSION OF DEBRIS
FROM CONSTRUCTION AND DEMOLITION

UNDER THE
COUNTY OF SAN MATEO, ORDINANCE NO. 4099, CHAPTER 4.105
AND THE
COUNTY OF SAN MATEO WASTE MANAGEMENT PLAN FORM

4.105.010 Definitions

For purposes of this chapter, the following definitions apply:

(a) "Construction and demolition debris" means and includes:

1. Discarded materials generally considered to be not water soluble and non-hazardous in nature, including but not limited to steel, copper, aluminum, glass, brick, concrete, asphalt material, pipe, gypsum, wallboard, and lumber from the construction or destruction of a structure as part of a construction or demolition project or from the renovation of a structure and/or landscaping, including rocks, soils, tree remains, trees, and other vegetative matter that normally results from land clearing, landscaping and development operations for a construction project;
2. Remnants of new materials, including but not limited to: cardboard, paper, plastic, wood, and metal scraps from any construction and/or landscape project.

(b) "Contractor" means any person or entity holding, or required to hold, a contractor's license of any type under the laws of the State of California, or who performs (whether as contractor, subcontractor, owner-builder, or otherwise) any construction, demolition, remodeling, renovation, or landscaping service relating to buildings or accessory structures in the unincorporated area of San Mateo County.

(c) "Covered Project" means and includes any project which consists of one or more of the following:

1. Demolition work only, where the cost of the work exceeds \$5,000 as determined by the Building Official;
2. The renovation, remodel or addition to an existing structure, or the construction of a new structure where the cost of the work exceeds \$250,000, as determined by the Building Official;
3. Commercial, residential, or multi-family residential development, and any new structure that is equal to or greater than 2,000 square feet.

(d) "Designated recyclable and reusable materials" means and includes:

1. Inert solids
2. Wood materials, including any and all dimensional lumber, fencing or construction wood that is not chemically treated, creosoted, CCA pressure treated, contaminated or painted;
3. Vegetative materials, including trees, tree parts, shrubs, stumps, logs, brush or any other type of plants that are cleared from a site for construction or other use;

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 62 23 - RECYCLING AND DIVERSION OF DEBRIS
FROM CONSTRUCTION AND DEMOLITION

4. Metals, including all metal scrap such as, but not limited to, pipes, siding, window frames, door frames and fences;
 5. Roofing materials including wood shingles and shakes as well as asphalt, stone and slate based roofing material;
 6. Salvageable materials and structures, including, but not limited to doors, windows, fixtures, hardwood flooring, sinks, bathtubs and appliances;
 7. Any other materials that the Building Official determines can be diverted due to the identification of a recycling facility, reuse facility, or market accessible from the County.
- (e) "Inert solids" includes asphalt, concrete, rock, stone, brick, sand, soil and fines;
- (f) "Salvage" means the controlled removal of materials from a covered project, for the purpose of reuse or storage for later reuse;
- (g) "Structure" means anything constructed or erected. (Ord. 4099, 02/26/02)

4.105.020 Deconstruction and Salvage and Recovery

- (a) Contractors are encouraged to make every structure planned for demolition available for deconstruction, salvage, and recovery prior to demolition; and to recover the maximum feasible amount of salvageable designated recyclable and reusable materials prior to demolition.
- (b) Recovered and salvaged designated recyclable and reusable materials from the deconstruction phase shall be counted towards the diversion requirements of this chapter. (Ord. 4099, 02/26/02)

4.105.030 Diversion Requirements

- (a) One hundred percent (100%) of inert solids, and at least sixty five percent (65%) of the remaining construction and demolition debris tonnage shall be diverted.
- (b) For each covered project, the diversion requirements of this chapter shall be met by submitting and following a "Waste Management Plan" that includes the following:
1. Deconstructing and salvaging all or part of the structure as practicable. AND
 2. Directing one hundred percent (100%) of inert solids to reuse or recycling facilities approved by the County. AND
 3. Either:
 - a. Taking all mixed construction and demolition debris to the Mixed Construction and Demolition Debris Recycling facilities approved by the County and taking all sorted or crushed construction and demolition debris to approved facilities; OR
 - b. Source separating non-inert materials, such as cardboard and paper, wood, metals, green waste, new gypsum wallboard, tile, porcelain fixtures, and other easily recycled materials, and directing them to recycling facilities approved by the County and taking the remainder (but no more than 50% by weight or yardage) to a facility for disposal. In this option, calculations must be provided to show that

SECTION 00 62 23 - RECYCLING AND DIVERSION OF DEBRIS
FROM CONSTRUCTION AND DEMOLITION

50% of construction and demolition debris (in addition to 100% of inert solids) has been diverted. (Ord. 4099, 02/26/02)

4.105.040 Information Required Before Issuance of Permit:

Every contractor shall submit a properly completed Waste Management Plan on a form prescribed by the County, as an integral part of the building or demolition permit application process for a covered project. The Waste Management Plan shall indicate the intended salvage, reuse, and recycling facilities, chosen from a list of facilities approved by the County, for all construction and/or demolition debris from the project. Approval of alternative facilities or special salvage or reuse options may be requested of the Building Official. Approval by the Building Official, or designee, of the Waste Management Plan as complying with this chapter shall be a condition precedent to the issuance of any building or demolition permit for a covered project. (Ord. 4099, 02/26/02)

4.105.050 Administrative Fee

As a condition precedent to the issuance of any building or demolition permit for a covered project, the applicant shall pay to the County a fee as established by resolution to compensate the County for all expenses incurred in administering this chapter. (Ord. 4099, 02/26/02)

4.105.060 Reporting

(a) No later than thirty (30) days following the completion of a demolition project or construction project, the contractor shall, as a condition of final approval and for issuance of any certificate of occupancy, submit documentation to the County that demonstrates compliance with the requirements of this chapter.

(b) The documentation shall consist of photocopies of receipts and weight tags or other records of measurement or equivalent documentation from recycling companies, deconstruction contractors, and landfill and disposal companies. The contractor's approved Waste Management Plan shall be completed by recording and confirming the type of debris diverted and the facilities to which it was taken. The contractor shall sign the completed Waste Management Plan form to certify its accuracy as part of the documentation of compliance.

(c) Progress reports during construction may be required.

(d) All documentation submitted pursuant to this section is subject to verification by the County.

(e) It is unlawful for any person to submit documentation to the County under this section which that person knows to contain any false statements, including but not limited to false statements regarding tonnage of materials recycled or diverted, or to submit any false or fraudulent receipt or weight tag or other record of measurement. (Ord. 4099, 02/26/02)

4.105.070 Penalties and Enforcement

(a) Each violation of the provisions of this chapter shall constitute a misdemeanor and shall be punishable by imprisonment in the county jail for up to six (6) months, or by a fine of up to one thousand dollars (\$1,000), or both. Each day that a violation continues shall be deemed a new and separate offense.

(b) The Building Official shall have the authority to enforce this chapter as specified in section 9021 of the San Mateo County Building Regulations, including but not limited to the authority to order

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 62 23 - RECYCLING AND DIVERSION OF DEBRIS
FROM CONSTRUCTION AND DEMOLITION

that work be stopped where any work is being done contrary to the provisions of this chapter. (Ord.
4099, 02/26/02)

END OF DOCUMENT 00 62 23

See the next page for “The County of San Mateo Waste Management Plan” fillable form.



County of San Mateo

WASTE MANAGEMENT PLAN

Case/group number(s):

BLD _____ - _____

Project address:

Street: _____

City: _____

Zip Code: _____

Green Halo number(s):

WMP required because project is a:

- Residential
- Demolition
- Nonresidential
- New Construction
- Addition

Submit to:

County of San Mateo
Office of Sustainability
455 County Center, 4th Floor
Redwood City, CA 94063
Mon-Fri, 8:30 am-12:00 pm, 1:00 pm-4:30 pm

Information and support: 888-442-2666
www.smcsustainability.org/waste-reduction/construction-demolition

Section One: Permit Application

This Waste Management Plan (WMP) must be completed, submitted for review with a **\$95 administration fee**, and approved to obtain a building permit. Separate WMPs are required for demolition and construction at the same site unless the Building Department requires only one permit. Need for a WMP is at the discretion of the Building Official or designee.

Applicant's Name: _____ Owner's Name: _____

Phone Number: _____ Email: _____

Applicant is (please check one): Owner Architect Builder Owner/Builder Other _____

Contractor (if applicable): _____ Contact Phone Number: _____

Project Description: _____

Project Square Footage: _____ Estimated Completion Date: _____

Waste Management Requirements:

You are required to recycle or re-use all inert solids (asphalt, brick, concrete, dirt, fines, rock, sand, and stone) and 65% of all construction and demolition debris.

I understand that I am required by San Mateo County Building Regulations Section 9210 - Adoption Of 2016 California Green Building Standards Code (Building Regulations) to salvage, reuse, or recycle **all inert solids** (asphalt, brick, concrete, dirt, fines, rock, sand, and stone) and **a minimum of 65%** of all construction and demolition debris (C&D). _____(Initial)

I understand that failure to meet the requirements of the Building Regulations shall constitute a misdemeanor, and shall be punishable by imprisonment in the county jail for up to 6 months and/or a fine of up to \$1,000, calculated as a percentage of the required 65% diversion of C&D debris, and that the fine must be paid as a condition of final approval. _____ (Initial)

At the completion of this project, or more frequently if required, all weight tags or other equivalent documentation from salvage, recycling and waste facilities will be provided and I understand that I may not be issued my final inspection unless all original receipts and documentation are submitted to the County of San Mateo Office of Sustainability. _____ (Initial)

Recycling and waste facilities ask for the correct origin of the materials generated as they come through the scale house. These tons are reported to the State of California. I understand that I need to advise my debris box company, waste haulers, and my drivers that the materials generated on this project originated in Unincorporated County of San Mateo. _____ (Initial)

1) Deconstruction/salvage/reuse:

What materials will be salvaged/reused? _____

Deconstruction or salvage company (if applicable): _____

What materials will be reused on site? _____

How will this be documented? _____

2) Material transportation:

Will you be using a hauling company, debris box company or hauling the material yourself?

Hauler Debris Box Self-haul

If using a hauling or debris box company, which company? _____

Have they been notified that the diversion of 65% mixed debris and all insert solids is required? Yes No

3) Waste management plan:

Check the materials you anticipate generating and fill in the facilities that you plan to use.

| Category | Material | √ | Reuse, Recycling or Disposal Facility |
|------------------|--------------------|---|---------------------------------------|
| Mixed C&D | Mixed Debris | | |
| Inerts | Asphalt | | |
| | Bricks | | |
| | Concrete | | |
| | Dirt | | |
| | Other inert solids | | |
| Source Separated | Cardboard | | |
| | Metals | | |
| | Wood | | |
| | Roofing | | |
| | Carpet | | |
| | Drywall | | |
| | Yard trimmings | | |
| | Other | | |
| Disposal | Waste | | |

The undersigned hereby agrees to comply with the Waste Management Plan as submitted and is the owner or authorized agent to sign for the owner of this project.

Applicant Signature _____ **Date** _____

County Approval: Approved Approved with comments Denied

All receipts, weight tags and documentation for salvage, recycling, and disposal must be submitted:

On completion of project Other _____

Office of Sustainability Approval: _____ Date: _____



County of San Mateo

WASTE MANAGEMENT PLAN

Case/Group Number(s):
BLD _____ - _____

Project Address:
Street: _____

City: _____

Section Two: Final Report Approval

Please complete, submit, and get this section approved by the Office of Sustainability, prior to obtaining final approval by the Building Department no later than 30 days after completion of the demolition or construction project. Please provide weight of materials in **tons**. If needed, please use the conversion table on the next page to convert cubic yards to tons.

This section must be completed and signed, and all receipts or other supporting documentation must be attached in order to receive final project approval.

| Category | Date | Material/items | Name of facility debris was hauled to | Weight (Tons) | Volume (CU. YD.) |
|--|------|----------------|---------------------------------------|---------------|------------------|
| Mixed C&D | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Salvage/Reuse | | | | | |
| | | | | | |
| | | | | | |
| Inerts Asphalt, bricks, concrete, dirt, rock, sand, soil, stone | | | | | |
| | | | | | |
| | | | | | |
| Source Separated Cardboard, wood, metal, sheetrock, wire, carpet, yard trimmings | | | | | |
| | | | | | |
| | | | | | |
| Disposal (Waste) | | | | | |
| | | | | | |
| | | | | | |

- All receipts or equivalent documentation for salvage, recycling, and disposal are hereby attached.
- This project has recycled all of the inert solids and at least 65% of all debris generated.

Applicant Signature _____ **Date** _____

County Approval: Approved Approved with Comments Fine Payment Required

Comments: _____

Fine Calculation: $1 - (\text{C\&D Diversion \% Achieved} \text{ ____} / 65\%) \times \$1000 = \$$ _____

Office of Sustainability Approval: _____ Date: _____

County of San Mateo

WASTE MANAGEMENT PLAN

Cubic Yards to Tons Conversion Table

| Category | Material | Cubic Yards | Pounds | Tons |
|-------------------------|--------------------|-------------|--------|------|
| Mixed C&D | Mixed load C&D | 1 | 500 | 0.25 |
| Inerts | Asphalt | 1 | 1380 | 0.69 |
| | Bricks | 1 | 3000 | 1.5 |
| | Concrete | 1 | 1860 | 0.93 |
| | Dirt | 1 | 2000 | 1 |
| | Other inert solids | 1 | 1240 | 0.62 |
| Source Separated | Cardboard | 1 | 100 | 0.05 |
| | Metals | 1 | 900 | 0.45 |
| | Wood | 1 | 300 | 0.15 |
| | Asphalt roofing | 1 | 1188 | 0.59 |
| | Carpet | 1 | 600 | 0.3 |
| | Drywall | 1 | 400 | 0.2 |
| | Green waste | 1 | 300 | 0.15 |
| | Gravel | 1 | 2600 | 1.3 |
| Disposal | Waste | 1 | 300 | 0.15 |

SECTION 00 65 36 - WARRANTY FORM

(Contractor's or Subcontractor's own letterhead)

WARRANTY GUARANTEE FOR THE:

County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
400 County Center, Redwood City, CA 94063

Project Number: PF02R

We, _____ (Contractor's name) hereby guarantees (Scope of Contractor's Work) _____ which

Contractor has installed for the County of San Mateo for the above project

beginning _____ for _____ year(s) in accordance with the Contract Documents.

We agree to repair or replace to the satisfaction of the Owner any and all such work that may prove defective in workmanship or materials within that period, ordinary wear and tear and unusual abuse or neglect excepted, together with all other Work which may be damaged or displaced in connection with such Work. This Warranty includes labor and materials.

In the event of our failure to comply with the above-mentioned conditions within seven (7) calendar days after being notified in writing, we collectively and separately do hereby authorize the Owner to proceed to have the defects repaired and made good at our expense and will pay the costs and charges therefore immediately upon demand.

I hereby certify that I am authorized to sign this document.

Date _____

(Signature of Contractor)

Print Name and Title

Date _____

(Signature of Subcontractor)

Print Name and Title
(Subcontractor must co-sign with Contractor)

Representative(s) to be contacted for service subject to terms of Contract:

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 00 65 36 - WARRANTY FORM

NAME: _____

ADDRESS: _____

PHONE NO.: _____

END OF DOCUMENT 00 65 36

| | |
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SECTION 00 72 13 - GENERAL CONDITIONS

GENERAL CONDITIONS

1 THE CONTRACT

1.1 CONTRACT DESCRIPTION

The Contract Documents form the entire Contract between the Contractor and the Owner. The Contract supersedes prior negotiation and representations, either written or oral.

1.2 CONTRACT DOCUMENTS

- A. The Contract Documents consist of the Notice to Contractors, Instructions to Bidders, Agreement, General Conditions, Special Provisions, Supplementary Conditions, Specifications, Drawings, Addenda, Revisions, Construction Change Directives, Change Orders (including Unilateral Change Orders), RFI Responses, Shop Drawings and other documents listed in the Agreement or included in the Project Manual, and written interpretations and instruction when issued in accordance with the provisions herein.
- B. The Contract Documents are complementary and what is required by anyone shall be as binding as if required by all. The Contract Documents are not necessarily complete in every detail. The Contract is to include all labor, materials, equipment and other items as necessary for the proper execution and completion of the work as specified or reasonably inferable as being necessary to produce the intended results in accordance with high quality industry standards.
- C. An item designated by reference to the number, symbol, or title of a specific standard such as a commercial standard, a Federal Specification, a Trade Association Standard or other similar standard, shall comply with the requirements in the latest revision thereof and any amendments or supplement thereto in effect on the date of the bid. The standards referred to shall have full force and effect as though printed in the Specifications.
- D. The County will arrange for the Contractor to have access to one set of reproducible Drawings. The Contractor may at his expense, reproduce the Drawings and Specifications as needed. All Drawings and Specifications and copies thereof are the property of the Owner. They are not to be used on other projects.
- E. For convenience, the Specifications may be arranged in sections and the Drawings may be arranged by system or otherwise. Such separation shall not be considered as the limit of Work required of any separate trade. The terms and conditions of such limitations are wholly between the Contractor and his Subcontractors.
- F. In general, the Drawings will indicate dimensions, position, quantity and type of construction; and the Specifications will indicate quality and method. Work indicated in one but not the other shall be furnished as though fully set forth in both. Work not specifically marked, specified, or detailed shall be the same as similar work that is marked, specified, or detailed.
- G. The Project Manual is a collection of documents assembled for the convenience of the parties and usually includes, but is not limited to, the Notice to Contractors, Instructions to Bidders, General Conditions, Supplementary General Conditions, Special Provisions, Bid Documents, Agreement, and Specifications.

1.3 ERROR IN THE DOCUMENTS

- A. Should an error or conflict appear in the Contract Documents, or a conflict with the documents and actual conditions, the Contractor shall notify the Owner, Owner's Representative, and Architect at

SECTION 00 72 13 - GENERAL CONDITIONS

once, and the Architect will provide a response and/or issue instructions. If the Contractor proceeds with the work without a written response/instructions, he shall make good any resulting unacceptable work or consequences.

- B. Whenever the documents could be construed to be ambiguous or conflicting at the time of Bid, the Contractor is deemed to have included the cost of the more expensive material, method, or requirement in the Contract Amount.
- C. Figured dimensions shall govern over scaling and large scale details shall govern over smaller scale details.

1.4 SEPARATE CONTRACTS

- A. The Owner reserves the right to let other contracts in connection with this Project. Contractor shall afford other County contractor(s) reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work with theirs as required by the Owner.
- B. If any part of Contractor's Work depends for proper execution or results upon the work of another contractor, the Contractor shall inspect and measure the work of other contractor and promptly report to the Owner all defects or discrepancies that render it unsuitable for such proper execution or results. Contractor's action of proceeding with his work shall constitute his acceptance of the prior work as fit and proper for the reception of his work.
- C. The Contractor and its respective Subcontractors shall repair any damage he may do to another County contractor's work to the Owner's satisfaction.

1.5 CONTRACT TERMINATIONS

- A. Owner's Right to Terminate Contract for Cause

If Contractor should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver by the Surety should be appointed on account of his insolvency, or if he should fail to supply enough properly skilled workmen or materials to maintain the schedule, or if he should fail to diligently and expeditiously prosecute the Work, or if he should fail to commence the Work on the Project site per the Owner's Notice to Proceed, or if he should fail to make prompt payments to Subcontractors or for materials or labor, or persistently disregard laws, ordinances or the instructions of the Owner or Architect, or otherwise breach any provision of the Contract between the Contractor and Owner, the Owner may without prejudice to any right or remedy the Owner may have and after giving the Contractor seven (7) calendar days written notice, terminate the Contract or terminate the Contractor's right to proceed with the Work and take possession of the premises and of all materials, tools and equipment thereon and finish the Work by whatever method the Owner may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Amount shall not exceed the expense of finishing the Work, including compensation for additional managerial and administrative services, such excess amount of the Contract shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

- B. Owner's Right to Terminate Contract for Convenience

The Owner reserves the right to terminate this contract at any time. Contractor shall be compensated on the basis of the reasonable value of the portion of Work completed as prorated against the Contract Amount or shown as a separate price and the cost incurred for portions of the Work performed but not completed. The total payments to contractor shall not exceed the Contract

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Amount.

C. Contractor's Right to Terminate Contract

Except as provided by paragraph 1.5.D Emergency Termination, if the Work should be stopped by the Owner, or an order of the court, or other public authority for a period of six months, through no act or fault of the Contractor or of anyone employed by him, then the Contractor may, upon twenty-one (21) days written notice to the Owner, terminate this Contract and recover from the Owner the amount owed under the Contract for the portion of Work, if any, which was completed.

D. Emergency Termination

This Contract is subject to termination as provided by Section 4410 and 4411 of the Public Contracts Code of the State of California, being portions of the Emergency Termination of Public Contracts Act of 1949. Said Sections read as follows:

"Sec. 4410. TERMINATION OF CONTRACT FOR PUBLIC WORK IN EVENT OF NATIONAL EMERGENCY. In the event a national emergency occurs, and public work, being performed by Contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment, or labor, as the result of an order or of a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the Work, then the public agency and the Contractor may, by written agreement, terminate said Contract."

"Sec. 4411. INCLUSION OF TERMS AND CONDITIONS OF TERMINATION OF CONTRACT IN AGREEMENT: COMPENSATION TO CONTRACTOR. Such an agreement shall include the terms and conditions of the termination of the Contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case."

"Compensation to the Contractor shall be determined on the basis of the reasonable value of the Work done, including preparatory Work. As an exception to the foregoing, in the case of any fully completed separate item or portion of the work for which there is a separate Contract price, the Contract price shall control. The parties may in any other case adopt the Contract price as the reasonable value of the Work or any portions thereof."

1.6 ALLOWANCES

- A. The Contractor shall include in the Contract Amount all allowances stated in the Contract Documents. Items or services covered by these allowances shall be supplied as the Owner may direct.
- B. Allowances for material and equipment shall cover the cost to the Contractor, less any applicable trade discount, delivered at the site, and all applicable taxes. The Contractor's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses required to complete the Work shall be included in the Contract Amount and not in the allowance.
- C. Whenever the cost of the material, equipment or service is more than or less than the allowance, the Contract Amount shall be adjusted by the procedure in Section 2, Contract Modifications.

1.7 DISPUTES

Should any dispute including breach, arise out of or relate to this Contract the Contractor shall continue to perform the Work in accordance with the Contract Documents and the Owner and

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Contractor agree to pursue resolution of the disagreement by whatever means available. Neither a dispute resolution process, the resolution, nor lack of resolution shall delay, hinder, or alter the completion of the Work in accordance with the undisputed portion of the Contract Documents and in accordance with the Owner's direction to Contractor regarding disputed portions of the Contract.

1.8 SEVERABILITY

In the event that any provision or any part of a provision of this Contract shall be finally determined to be superseded, invalid, illegal or otherwise unenforceable pursuant to applicable laws by an authority having jurisdiction, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provisions or parts of provisions of this Contract, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

1.9 HEADINGS

The headings of any section or provision of this Contract are for convenience only and shall not be deemed to limit, restrict or alter the content, meaning or effect thereof.

2 CONTRACT MODIFICATIONS

2.1 MODIFICATION DOCUMENTS

- A. The Owner, without invalidating the Contract and without consent of surety, may accomplish changes in the Work within the general scope of the Contract consisting of additions, deletions, additional instructions, or other revisions, to the Contract Documents, and where applicable, the Contract Amount and/or the Contract Time being equitably adjusted accordingly. All such changes in the Work may be accomplished by Owner's Instructions, Architect's Supplemental Instructions, a Construction Change Directive, a Change Order (including a Unilateral Change Order), as may be applicable in accordance with the provisions of the Contract. The Contract Amount and/or the Contract Time may be changed only by a Change Order. Contractor agrees to promptly proceed with changes in the Work according to the respective form of documentation issued. All changes to the Work and all Contractor requests for additional compensation shall be resolved in accordance with this Section 2, Contract Modifications.
- B. A Change Order is a written order from the Owner ordering a change in the Work. Upon receipt of a Change Order, the Contractor shall promptly proceed with the Work as changed. The Contractor will not delay the Work for any reason. Within ten (10) working days after receiving a Change Order and prior to or simultaneously with proceeding with the change in the Work, Contractor shall advise the Owner and Architect of Contractor's inability to proceed with the Work, and shall state in writing. Proceeding with the Work as changed without submitting a notice to Owner or Owner's Representative indicates Contractor's full acceptance of the Change Order including the Contract Amount and/or Contract Time.
- C. The signature of the Owner and Contractor on the Change Order indicates their final and conclusive acceptance of the stated terms and provisions as full compensation for the change to the Work. In the event the Owner and Contractor do not agree upon an adjustment to the Contract Amount and/or Contract Time resulting in a Change Order, the Owner may issue a Unilateral Change Order. A Unilateral Change Order is signed by the Owner and issued to the Contractor authorizing an adjustment in the Contract Amount and/or Contract Time as the Owner deems equitable. A Unilateral Change Order does not require the Contractor's signature, but may be signed by the Contractor and returned to the Owner.
- D. If Contractor is in disagreement with the terms or provisions of a Unilateral Change Order, the Contractor shall give the Owner and Architect written notice of his disagreement, the basis thereof, and supporting documentation within ten (10) working days of receiving the Unilateral Change

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Order. Such notice of disagreement does not excuse performance by the Contractor of all obligations under the Contract Documents and the Contractor shall proceed with the Work including the Work involved with the disagreement. Failure to present such notice of disagreement constitutes a waiver by the Contractor of any entitlement to additional cost or time, or subsequent claim.

- E. The Owner and Architect have the authority to issue Owner's instructions or Architect's Supplemental Instructions respectively to the Contractor which may require minor changes in the Work not involving an adjustment in the Contract Amount or an extension of Contract Time. If Contractor believes an adjustment of Contract Amount or Contract Time is justified, Contractor shall not incur additional cost or delay and notify the Owner or Architect in writing within 24 hours of upon receipt.
- F. A Construction Change Directive is a written document signed by the Owner and issued to the Contractor to perform as specified. The Contractor shall immediately comply with and perform to the Construction Change Directive. If the Contractor believes an adjustment of Contract Amount or Contract Time is justified, a request may be submitted in accordance with Section 2.4, Contractor Claims. If the Owner concurs with the Contractor a Change Order will be issued.

2.2 VERBAL INSTRUCTIONS

Contractors shall not act or rely upon verbal instructions. If a verbal instruction is provided on site to the Contractor, Contractor shall document such verbal instruction through a confirming RFI. No work will be accepted by the Owner that differs from the Contract Documents as modified in writing.

2.3 METHOD OF DETERMINING ADJUSTMENT

- A. An adjustment to the Contract Amount or Contract Time pursuant to a Change Order resulting from a Construction Change Directive, Claim, or other provision herein shall be determined in one or more of the following ways at the Owners discretion.
 - 1. By negotiation based upon Contractor's estimate. The estimate shall include quantities of materials and man hours, and a breakdown of cost showing labor, materials, profit, overhead, and all other items of cost. Labor rates for Change Orders shall be agreed upon between the Owner and the Contractor within thirty (30) calendar days of Contract Award date. General requirements, labor burden, project supervision, project management and facilities are not allowed. Overhead and profit shall not exceed the percentages specified in the Contract Documents.
 - 2. By unit prices stated in the Contract or subsequently agreed upon.
 - 3. By acceptance of a lump sum price proposal of Subcontractor to Contractor.
 - 4. By determination of the Owner and issued unilaterally by a Unilateral Change Order.
- B. If the adjustment is not determined by the above methods prior to the Contractor starting Work pursuant to the Change Order, Contractor shall proceed with the Work and keep daily accurate records of the labor hours, materials, and other items of cost used in the performance of the changed Work. Copies of the records shall be given to the Owner or Owner's Representative daily. Contractor shall present at such time and in such form as Owner may prescribe, an itemized accounting together with appropriate supporting data as may be required by Owner to fully substantiate the cost of the changed Work. Owner shall consider such accounting in its determination of equitable adjustment. Overhead and profit shall not exceed the percentages specified in the Contract Documents.

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- C. Extension of Contract Time will be granted only to the extent that the time required to complete the Work as changed or delayed extends the schedule critical path beyond the contract completion date. If changes or delays do not extend the critical path of the schedule beyond the contract completion date, there will be no contractor entitlement to extended or additional home office expenses. Float, as used in this agreement, is the sum of the amount of time available to a task before the task becomes critical and the amount of time between the scheduled completion date and the contract completion date. Float may be used in the order needed by either the Owner or the Contractor.

2.4 CONTRACTOR CLAIMS AND DISPUTES

- A. If the Contractor wishes to request an adjustment in the Contract Amount or Contract Time, other than pursuant to a Change Order or Construction Change Directive, Contractor shall give the Owner and Architect a written Notice of Claim.
- B. Contractor shall file with the Owner any written Claim, including the documents necessary to substantiate it, on or before Substantial Completion, but no later than the day of Contractor's submittal of final payment on the Contract.
- C. The Notice of Claim shall be given by the Contractor to the Owner before conditions occur which are the basis for the Claim, except in an emergency endangering life or property in which case the Contractor should proceed in accordance with Section 6.7, Emergencies. Failure to present such Notice of Claim constitutes a waiver of such Claim.
- D. Notices for claims or disputes are valid only if written and shall be a document issued for the sole purpose of notification and titled clearly "Notice of (specify category i.e., delay) Claim." A separate written notice is required for each subject and issue.
- E. Written notice shall be deemed to have been duly served if delivered in person to the individual to whom it is addressed, or if sent by certified mail to the address specified in the Contract Documents as may be revised in writing.
- F. The Contractor shall continue to perform its Work under the Contract and shall not cause a delay in the Work during any dispute, claims definition, negotiation, mediation, or arbitration proceeding, except by written agreement by the Owner.
- G. The adjustment to the Contract Amount or Contract Time, if any, as the result of a settled claim, shall be determined and issued in accordance with this Section 2, Contract Modifications.
- H. All procedures for Claims and Disputes resolution shall be duly processed pursuant to the California Public Contract Code, Division 2, Part 1, Chapter 9 Sections 9201 – 9204.
- I. The attention of the Contractor is drawn to Government Code Section 12650, et seq. regarding penalties for false claims.

2.5 DELAYS BEYOND CONTRACTOR'S CONTROL

- A. If the Contractor is delayed at any time in the progress of the Work by acts or neglect of the Owner or by any separate contractor employed by Owner, or by labor disputes, fire, unusual delays in transportation, unusually adverse weather conditions, unavoidable casualties or by any other unforeseeable cause of delay beyond the Contractor's control, which the Owner decides justifies the delay, then the Contract Time may be extended for such reasonable time as the Owner in his discretion may decide. Contractor's Claim for extension of Contract Time shall be made in writing to the Owner in accordance with Section 2.4, Contractor Claims. Only one Claim is necessary in the case of continuing delay.

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- B. Unusually adverse weather conditions for the purposes of this Project are agreed to be work days lost from weather or the effects of weather greater than the number of lost days specified in Section 7.5, Schedule.

2.6 HIDDEN CONDITIONS

Should concealed or unknown conditions be encountered in the performance of the Work below the surface of the ground or in an existing structure be at variance with the conditions indicated by the Contract Documents, or differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, the Contract Amount and/or Contract Time shall be equitable adjusted as provided herein upon Claim by Owner or Contractor. Contractor Claims shall be in accordance with Section 2.4, Contractor Claims.

2.7 HAZARDOUS MATERIALS

Asbestos or other hazardous material may be present in County buildings or on County property. Asbestos is typically in the form of pipe lagging, fire proofing, floor tiles, mastic, and plaster. Soil may be contaminated by petroleum products or other substances. In the event any suspected asbestos or other hazardous material is encountered during construction that may be disturbed by the Work, the Contractor shall stop immediately and notify the County. The Contractor and all Subcontractors shall instruct their employees of the type and location of the most likely forms of hazardous material to be encountered and of the procedure to be taken if encountered. Contractor will be responsible for the mitigation and abatement of the hazardous material upon authorization of Owner. All Claims for adjustment in time or money shall be processed in accordance with Section 2.6, Hidden Conditions.

2.8 OVERHEAD AND PROFIT

- A. Adjustments to the Contract Amount due to changes in the Work or any other reason, shall include overhead and profit as follows:
1. Contractor's overhead and profit on the direct cost of Work (labor, material, and equipment) performed by his forces and all Subcontractors shall be a total sum not exceeding twenty percent (20%) in aggregate of such costs.
 2. Contractor's overhead and profit on the direct cost of Work (labor, material, and equipment) performed by Subcontractors shall be a total sum not exceeding ten percent (10%).
 3. Subcontractor's overhead and profit on the direct cost of the Work (labor, material, and equipment) performed by Subcontractor shall be a total amount not exceeding fifteen percent (15%). Subcontractor overhead and profit will be allowed for one tier only.
 4. Bonds and Insurance shall not exceed one percent (1%) of the sum of the direct cost of the work, the Subcontractor's overhead and profit, and the Contractor's overhead and profit.
 5. Changes to the Work ordered by the Architect or Owner which decrease the Contract Amount shall include overhead and profit in accordance with the above provisions. Value engineering revisions initiated by the Contractor and accepted by Owner which decrease the Contract Amount shall be at cost only.
 6. The "direct cost of the Work" is considered to be the cost of labor, material, and equipment incorporated into the construction. Supervision and administration of the work, changes, or claims shall not be included in direct cost.

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2.9 MAINTAIN RECORDS

Contractor and Subcontractor shall maintain records, in accordance with generally accepted accounting principles, relating to costs of changes to the Work or Claims for 4 years after the final completion. The Owner will have the right to audit these records at any time up to 4 years after completion of the Project and recover from the Contractor or Subcontractor any amount paid but not substantiated by audit.

2.10 PROPOSAL REQUESTS

Contractor is required to provide preliminary estimates using their best judgment of time and cost impact of potential changes to the Project as requested by the Architect and/or Owner. Estimates shall be provided to the Architect and Owner within 10 working days of receiving the Proposal Request. Contractor will be responsible for any cost increase or schedule impact resulting from Contractor's failure to respond within the allowed time.

3 CONTRACTOR

3.1 DEFINITIONS

- A. The term Contractor, as used herein, is the person or organization identified as such in the Agreement, and is referred to as if singular and masculine and includes his authorized representatives.
- B. The term Subcontractor, as used herein, includes only those persons or organizations having a direct Contract with the Contractor to perform a portion of Contractor's Work.

3.2 GENERAL

- A. Contractor agrees to perform all Work required by the Contract Documents.
- B. All Work shall be done in accordance with the best practices of the various trades and/or suppliers and highest industry standards.
- C. The Contractor shall keep on the Project site during the progress of the Work a competent superintendent satisfactory to the Owner. The Superintendent shall not be changed except with the consent of the Owner. The Superintendent shall represent the Contractor and all directions given to him shall be as binding as if given to the Contractor.
- D. It is the Contractor's responsibility to diligently prosecute the Work, using his best skills and attention, and the most appropriate techniques and equipment that are required to provide a finished product in compliance with the Contract requirements. Contractor shall insure that no Work is done that does not comply with the Contract Documents.
- E. The Contractor shall attend a preconstruction meeting, weekly progress meetings and other meetings as necessary to accomplish the Work and administer the provisions of the Contract.
- F. Contractor shall submit to Owner a daily record of Contractor's activity. Such record shall be delivered to Owner's Representative daily for previous day's activity and shall include Project name, date, weather, names of Subcontractors, count of personnel by company, material deliveries, description and location of activity and events. The record of daily activity shall not be used as a Notice to Owner.

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3.3 SUBCONTRACTS

- A. The Contractor shall not be permitted to substitute any person or organization for any Subcontractor, person or organization listed by him in his bid without the prior, written consent of the Owner, as provided for in the California Public Contract Code, Division 2, Part 1, Chapter 4, Section 4017.
- B. In addition to the information required in Division 00 Bidding Documents regarding Subcontractors, the Contractor, after execution of the Contract but prior to execution of a subcontract, shall submit the following information on each Subcontractor: name, address, and nature of Subcontractor's work, Subcontract Amount, and all other information the Owner deems relevant. The Contractor shall not Contract with any such proposed Subcontractor or entity to whom the Owner objects.
- C. Contractor shall bind every Subcontractor and every Subcontractor agrees to be bound by the terms of the Contract Documents insofar as applicable to their portions of the Work. The Contractor shall be responsible for the acts and omissions of Subcontractors.
- D. Contractor agrees to pay to each Subcontractor promptly upon receiving payment from Owner.
- E. Neither the acceptance of the Subcontractor nor any other act of the Owner, nor anything contained in any contract document is to be construed as creating any contractual relation between the Owner and any Subcontractor.

3.4 PERSONNEL AND LABOR POLICY

- A. Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ any unfit person or anyone not skilled in the work assigned to them. The Contractor shall be responsible to the Owner for the acts and omissions of its employees and other persons performing work for the Contractor.
- B. No person shall be excluded from participation in, denied benefits of, or be subject to discrimination under this Contract on the basis of their race, color, religion, national origin, age, sex, sexual orientation, pregnancy, childbirth or related conditions, medical condition, mental or physical ability, or veteran's status. Contractor shall ensure full compliance with federal, state and local laws, directives and executive orders regarding non-discrimination for all employees and subcontractors under this Contract.

Violation of the non-discrimination provisions of this Contract shall be considered a breach of this Contract and subject the Contractor to penalties, to be determined by the County Manager, including but not limited to: i) termination of this Contract; ii) disqualification of the Contractor from bidding on or being awarded a County contract for a period of up to 5 years; iii) liquidated damages of \$2,500 per violation; iv) imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Manager.

To effectuate the provisions of this paragraph, the County Manager shall have the authority to: i) examine Contractor's employment records with respect to compliance with this paragraph; ii) set off all or any portion of the amount described in this paragraph against amounts due to Contractor under the Contract or any other Contract between Contractor and County.

Contractor shall report to the County Manager the filing by any person in any court of any complaint of discrimination or the filing by any person of any and all charges with the Equal Employment Opportunity Commission, the Fair Employment Housing Commission or any other entity charged with the investigation of allegations within 30 calendar days of such filing, provided that within such 30 calendar days such entity has not notified Contractor that such charges are dismissed or otherwise unfounded. Such notification shall include the name of the complainant, a copy of such

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complaint and a description of the circumstance. Contractor shall provide County with a copy of its response to the complaint when filed.

For contracts over \$5,000, with respect to the provision of employee benefits, Contractor shall comply with the County Ordinance which prohibits contractors from discriminating in the provision of employee benefits between an employee with a domestic partner and an employee with a spouse. See Document 00 7373 Supplemental Conditions, Equal Benefits Compliance Ordinance No. 4324, Chapter 2.84.

- C. Contractor shall ensure equal employment opportunity based on objective standards of recruitment, selection, promotion, classification, compensation, performance evaluations, and management relations, for all employees working on the Project. Contractor's affirmative action policies shall be made available to Owner upon request. See Document 00 45 36.01 Equal Opportunity Requirements, Certification of Compliance with Laws Prohibiting Discrimination.
- D. It is the policy of the Owner that Contractors on public Projects employ their workers from the local labor market whenever possible. Consistent with that policy, the Contractor is requested to employ his workers from the local labor market. Local labor market within the meaning of this section is defined as the labor market within the geographical confines of the County of San Mateo, State of California.
- E. The Contractor shall forfeit, , as per the San Mateo County Office of Labor Standards and Enforcement (OLSE) and/or the State of California Department of Industrial Relations (DIR) penalties for each laborer, workman, or mechanic employed in the execution of the Contract by Contractor, or by any Subcontractor under Contractor, upon any of the Work performed for the Contract, for each calendar day during which said laborer, workman, or mechanic is required or permitted to labor more than eight (8) hours in violation of the provisions of the California Labor Code, Division 2, Part 7, Chapter 1, Article 3, Section 1810.
- F. Apprenticeship Program: Contractor shall comply with the provision of California Labor Code, Division 2, Part 7, Chapter 1, Article 2, Section 1777.5.
- G. The Contractor shall comply with the provisions of the California Labor Code, Division 2, Part 7, Chapter 1, Article 2, Section 1776, and the regulations implementing it in Title 8 of the California Administrative Code. The Contractor shall be responsible for compliance by his Subcontractors. A certified copy of all weekly payroll records shall be furnished upon request of the Owner, the Division of Labor Standards Enforcement, or the Division of Apprenticeship Standards of the Department of Industrial Relations.
- H. Payrolls shall contain the full name, address, and social security number of each employee, his correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. They shall also indicate apprentices and ratio of apprentices to journeymen.
- I. The penalties specified in Subdivision (h) of Labor Code Section 1776 for noncompliance with the provisions of Section 1776 may be deducted by the County from any moneys due or which may become due to the Contractor.

4 OWNER

4.1 DEFINITION

The Owner is the person or organization identified as such in the Agreement and is referred to as if singular in number and masculine in gender and includes his authorized representatives. The Owner may be the County of San Mateo, sometimes referred to as "The County".

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4.2 GENERAL

- A. The Owner may furnish information after the bid date and not included in the Contract Documents in the form of drawings, reports, survey data, utility locations, plans of existing facilities and such other information. This information is not part of the Contract Documents.
- B. The Owner shall receive copies of all correspondence, notices, approved shop drawings, test reports and such material pertinent to the Contract. The Owner shall have access to the Work at all times.

4.3 THE DIRECTOR OF PUBLIC WORKS

The Director of Public Works for the County of San Mateo or his duly appointed representative is the duly appointed agent for the Owner and as such is empowered to act for the Owner in all matters as stated in the Contract Documents or as provided by law.

4.4 OWNER'S CONSTRUCTION MANAGER

- A. The Owner may engage a Construction Manager as an Owner's Representative for the Project. The Owner's Construction Manager shall receive copies of all communications regarding the Project, have full access to the Work, and be kept informed of all actions taken by the Contractor.
- B. The Owner's Construction Manager shall not interpret the plans, coordinate the Work, order changes in the Work, supervise the workmen, or perform any duty which is the responsibility of the Architect or the Contractor.

5 ARCHITECT

5.1 DEFINITION

For the purpose of this Contract, the Architect is identified in the Project Manual. The term "Architect" is the individual, partnership, corporation, joint venture, or any combination thereof, who will have the rights and authority assigned to the Architect in the Construction Documents. The Term Architect means the County's Architect on this Project or the Architect's authorized representatives and consultants. Nothing contained in the Contract Documents shall create any contractual relationship between the Architect and the Contractor.

5.2 GENERAL

- A. The Architect and the Construction Manager will provide general administration of the Contract between Owner and Contractor.
- B. The Architect will have authority to act on behalf of the Owner to the extent provided in the Contract Documents. The Owner's instructions to the Contractor may be issued through the Architect.
- C. The Architect shall at all times have access to the Work. The Contractor shall provide facilities for such access so the Architect may perform his functions under the Contract Documents. The Architect will make periodic visits to the site to familiarize himself with the progress and quality of the work and to determine if the work is proceeding in accordance with the Contract Documents. Architect will endeavor to guard the Owner against defects and deficiencies in the Work.
- D. The Architect will be the interpreter of the requirements of the Contract Documents and the judge of the Contractor's performance thereunder. The Architect will, within ten (10) working days, render interpretations or answers to questions submitted by Contractor. All interpretations and decisions

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of the Architect shall be consistent with the intent of the Contract Documents. In Architect's capacity as interpreter and judge he will exercise his best efforts to insure faithful performance by all parties of the Contract. The Architect's decision in matters relating to esthetic effect will be final.

- E. The Architect will review submittals, samples, adjustments to the Contract, applications for payment, written guarantees, operation and maintenance manual and other documents required by the Contract.

6 PERFORMANCE OF THE WORK

6.1 DEFINITION

- A. The term "Work" as used herein is all of the Contractors obligations under the Contract including, but not limited, to providing all labor, material, equipment and services indicated by the Contract Documents, as-built drawings, punchlist, inspections and approvals required or necessary for occupancy, and guarantees.
- B. The term "Project" is the total construction planned or contemplated by the Owner of which the Work may be the whole or a part. The Owner may perform or contract for other work on the Project site during the progress of the Work.

6.2 GENERAL

- A. The Contractor shall provide, maintain and remove upon completion of the Work, all tools, machinery, equipment, temporary rigging, scaffolding, hoisting equipment, rubbish chutes, barricades around openings and excavation, ladders between floors, fences around buildings, and all other items as required for safe completion of the Work, whether specifically designated or not and shall conform to all requirements in regard to operation, safety, and fire hazards of State and local authorities and of underwriters.
- B. Deliver all materials and equipment in the manufacturer's original sealed, labeled containers and protect items against moisture, rust, dust, tampering, or damage.
- C. Place all materials and equipment orders in time to avoid job delay or hindrance. Schedule deliveries to coincide with the construction schedule so that materials and equipment are promptly installed upon delivery.
- D. Except as specifically noted otherwise, the installation and/or maintenance directions provided by the manufacturer shall be followed for all materials and equipment.
- E. All materials and equipment shall be new, unless specifically marked otherwise.
- F. All materials and equipment not conforming to the Contract Documents shall be rejected and shall be immediately removed from the site of the Work.
- G. All utilities and services required by the Contractor including electrical power, water, temporary telephones, temporary sanitary facilities, and temporary heat as required for the proper installation of materials and the completion of the Work shall be provided by Contractor.
- H. Shut down of utilities for any reason or duration shall be subject to approval by the Owner. The Owner requires a minimum 48 hour advance notice for a utility shut down. When shut-downs of 30 minutes or more are required, the Contractor shall provide alternate service for normal occupancy requirements. Utility shut-downs shall be scheduled during non-business hours.
- I. Prior to ordering materials, the Contractor shall verify all measurements, material handling pathway

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and logistical dimensions at the site and shall be held responsible for their accuracy. No extra compensation will be allowed for differences between actual measurements and the dimensions shown on the Drawings.

- J. Fences, office facilities, enclosures, storage sheds, etc., required by the Contractor in the performance of the Work shall be located where approved by the Owner.
- K. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with any materials or equipment.
- L. During the progress of the Work, Contractor shall keep the premises orderly and safe and free from accumulation of waste materials and rubbish.
- M. At the completion of the Work, Contractor shall remove all waste, surplus materials, and rubbish and shall clean all surfaces, removing all extraneous paint, mortar, dust, and stains, leaving the Work bright, clean and polished.
- N. The project is not exempt from any Federal, State or local taxes.
- O. Royalty and License Fees incidental to the use of any patented material, device or process shall be paid by the Contractor and in the event of a Claim of alleged infringement of patent rights, the Contractor shall save the Owner free and harmless from loss on account thereof; and also defend, at his own expense, all suits that may be brought in such connection.
- P. Contractor shall continuously maintain adequate protection of all Work and shall protect the Owner's property from damage or loss arising in connection with this Contract.
- Q. Precaution shall be exercised at all times for the protection of persons (including Contractor's and Owner's employees) and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment and all hazards shall be guarded or eliminated in accordance with the safety provisions of the latest safety orders of the State of California: California Code of Regulations, Title 8, Construction Safety Orders (see Department of Industrial Relations at: <https://dir.ca.gov>), the California Occupational Safety and Health Administration (CAL/OSHA) Safety Orders (at <https://dir.ca.gov/dosh/>), and CAL/OSHA and Statewide Industry Guidance on COVID-19 (at <https://dir.ca.gov/dosh/coronavirus/Health-Care-General-Industry.html>).
- R. All materials and workmanship shall be subject to inspection, examination, test, and acceptance by the Owner at all times during manufacture and construction and at all places where such manufacture and construction occurs.

6.3 EXISTING CONDITIONS

- A. The Contractor by executing the Contract represents that he has visited the site and familiarized himself with the local conditions under which the Work is to be performed and has correlated his site observations with the requirements of the Contract Documents.
- B. The contractor shall carefully study and compare the Contract Documents and existing conditions and dimensions and the connection of the Work to existing conditions and shall report to the Architect any error, conflict, inconsistency, omission, or any variance with laws, ordinances, codes, rules or regulations bearing on the Work. Contractor shall report such conditions to the Architect in writing at such time as to allow at least ten (10) working days for a response with no delay to the Work. All necessary changes shall be accomplished in accordance with Section 2, Contract Modifications.

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6.4 ADJACENT FACILITIES

- A. The Contractor shall provide adequate protection for all parts of the Project site, and adjacent property, its improvements and its occupants throughout the Work. All damage done to existing property shall be repaired or replaced at the Contractor's expense and determined to be acceptable by the Architect and Owner.
- B. Work shall be executed in careful, orderly manner, with the least possible disturbance to public and occupants of the area.
- C. The Owner will continue to use adjacent areas of the facilities. Contractor shall take care to disrupt the Owner as little as possible. Contractor shall provide legal and safe access to all facilities at all times. In order to facilitate use of adjacent facilities Owner may order Contractor to alter or temporarily cease operations.

6.5 PERMITS

- A. It shall be the responsibility of the Owner to obtain and pay for all permits, licenses, certificates, approvals, utility connections and services necessary for the proper execution and completion of the Work.
- B. All fees which are for temporary approvals or services, such as those which are necessary for construction procedures, shall be paid by the Contractor.
- C. In the event the Special Provisions require the Owner to pay any fee, the Contractor shall notify the Owner in writing, twenty (20) working days in advance of a required fee payment.
- D. It is the policy of the County to cooperate with State, County and City officials in regard to the construction of this Project, and it is the responsibility of the Contractor and all his Subcontractors to meet the requirements of government officials having responsibility for inspecting or observing construction by taking out permits for the Work, calling for inspections and adhering to safety practices in accordance with standard practice. In the case of conflict of any of these provisions, the Owner shall be notified. The term Inspector means a Public Building Construction Inspector or an individual performing the inspection as required by building codes or jurisdiction.

6.6 LAWS

- A. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work. If the Contractor performs any Work contrary to such laws, ordinances, rules and regulations, he shall bear all costs and delays arising therefrom.
- B. Owner and Contractor have all rights provided by law not specifically waived by this Contract.

6.7 EMERGENCIES

- A. In an emergency affecting the safety of life, the Work, or property, the Contractor, without special instruction or authorization from the Owner, is hereby permitted to act, at his discretion, to prevent such threatened loss or injury; he shall so act without appeal if so instructed or authorized. Any compensation, claimed by the Contractor on account of emergency work, beyond Contractor's contractual obligations, shall be determined by agreement. The Contractor shall immediately notify the Owner in writing.
- B. In an emergency affecting the safety of life, the Work, or property or if an unsafe condition exists, the Owner may, but is not obligated, take measures to mitigate the condition. Such measures may include expending labor or material, engaging other contractors, entering the Project site utilizing

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materials, equipment, or facilities of Contractor. The Owner's actions may be performed immediately and without notice to Contractor. Contractor shall pay Owner for all costs which are attributable to Contractor.

6.8 SUBMITTALS

- A. Submittals include, but are not limited to shop drawings, product data, maintenance information, samples, manufactures instructions, certifications, and similar documents or items which demonstrate the way the Contractor proposes to perform the Work to the information in the Contract Documents. Contractor shall review the entire Contract Documents for other provisions relating to submittals and individual submittal requirements, if any.
- B. The Contractor shall review, stamp with his approval and submit to the Architect in orderly sequence so as to cause no delay in his Work or in the work of any other contractor, all submittals required by the Contract. Submittals shall be properly identified with specification section. At the time of submission, the Contractor shall note in writing any deviation in the submittals from the requirements of the Contract Documents. By approving and submitting shop drawings and samples, the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data, and that he has checked and coordinated each shop drawing and sample with the requirements of the Work and of the Contract Documents.
- C. The Architect will review submittals for conformance with the designed concept and with the information given in the Contract Documents. A minimum of 10 working days is required for each submittal review. The Architect's review will not relieve the Contractor of responsibility for complying with the Contract Documents. If a submittal is required to be resubmitted, the time and cost of resubmission is the responsibility of the Contractor.

6.9 SUBSTITUTIONS

- A. The intent of the Specifications is to specify high grade equipment and materials appropriate for the Project. It is not the intent of the Specifications to exclude or limit the products of any responsible manufacturer, except when the Owner has adopted a specific system or product which will be noted, "No Substitutions Allowed", or similar language. Where equipment, material, or process is specified by trade name or by patentee, manufacturer or dealer, it shall mean the specified item or product. No substitution shall be made by the Contractor without written approval of the Architect. The Architect shall be the sole judge of a Contractor proposed substitution. See Division 01 for Substitution requirements. The Architect's refusal to approve a substitution shall not effect the progress of the Work and is not grounds for a Claim against the Owner.
- B. The Contractor shall pay a \$200, lump sum, for the Architect's time to review substitution requests. Payment is to be included with the substitution request package.

6.10 CORRECTING WORK

- A. The Contractor shall promptly correct all Work rejected by the Owner or Architect, whether observed before or after the Notice of Completion and whether or not fabricated, installed or completed. The Contractor shall not receive a time extension for correcting such rejected Work. All such defective or non-conforming Work shall be corrected to comply with the Contract Documents without cost to the Owner. The Contractor shall bear the cost of making good all Work of separate contractors which may be destroyed or damaged by such removal or correction.
- B. If any Work should be covered before it is inspected, the Contractor at his expense, must uncover the Work for inspection and then replace the Work.

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- C. If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, or fails to perform any provisions of the Contract Documents, the Owner may, after seven (7) working days written notice to the Contractor and without prejudice to any other remedy Owner may have, and without Contract termination or ordering the Contractor to stop Work make good such deficiencies in any manner the Owner deems expedient. In such case an adjustment to the Contract shall be made in accordance with Section 2, Contract Modifications, deducting from the payment then or thereafter due the Contractor, the cost of correcting such deficiencies, including the cost of additional services made necessary by such default, neglect or failure.
- D. If the Owner deems it not expedient to correct Work damaged or not done in accordance with the Contract Documents, a deduction from the Contract price shall be made.
- E. If the Contractor fails to correct defective Work or fails to supply materials or equipment in accordance with the Contract Documents, the Owner may order the Contractor to stop the Work or any portion thereof until the cause of such order for the Work has been eliminated. Contractor shall not receive a time extension or compensation as a result of stopping Work as required by this provision.

6.11 TESTING

- A. The Owner will provide for testing of materials or workmanship as required by these Specifications. The Contractor shall coordinate and schedule tests directly with the testing firm. The costs of tests on materials at the Project site will be borne by the Owner, except for retesting, as specified below, the material required for testing, and the Contractor's labor required to facilitate the test or delayed by the test, which the Contractor shall furnish. The Contractor will cooperate with the Owner's testing representative in the taking of test Samples. The Contractor shall pay for all tests which are not performed at the job site.
- B. Required tests are specified elsewhere in the Specifications.
- C. Should the results of any required tests fail to meet the requirements of the Contract Documents, Contractor shall either correct the unacceptable condition or furnish new materials, as directed by the Owner. Additional tests shall be made at the Contractor's expense until the materials are found to meet the requirements of the Contract Documents.
- D. Should the results of any soil compaction tests fail to meet the requirements of the Specifications, Contractor shall recondition and/or recompact the fill, and additional tests shall be made at the Contractor's expense until the compaction is found to meet the requirements of the Specifications.
- E. Testing or inspection services required outside of regular working hours shall be paid for by the Contractor.
- F. When existing building systems such as fire alarms, fire sprinkler systems, smoke detectors, halon systems, etc., are modified by the Work, the Contractor shall test the entire system at the completion of the Work and demonstrate to the Owner that the system is functioning correctly and reliably.

6.12 RECORD DOCUMENTS

- A. The Contractor shall maintain at the site record documents consisting of all Drawings, Specifications, addenda, approved shop drawings and samples, Change Orders, Construction Change Directives, instructions from the Architect, and other documents relating to the Project. All record documents shall be marked legibly by the Contractor to record all changes to the Work, field measurements, actual conditions, and adjustments made during construction.

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- B. Upon completion of the Work, Contractor shall transfer all record document information to a clean set of Drawing and Specifications and electronic media compatible with the Owner's software and deliver them to the Architect. CAD documents shall be in sheet format. Contractor shall provide any explanation or clarification of the record documents requested by Owner or Architect.

6.13 OPERATING AND MAINTENANCE MANUALS

Assemble and bind two (2) hardcopy sets and one (1) electronic PDF file, clearly categorized according to the Project Specifications, of all guarantees, certificates, warranties, operating instructions, as-built specification, and maintenance manuals into clearly organized files with an index, a list of Subcontractors and suppliers including their names, addresses, and phone numbers and present to Architect at the completion of the Work.

6.14 TRAINING TO OWNER/OWNER'S REPRESENTATIVE

Contractor shall provide training to the Owner and Owner's representatives for all operating systems, features, and equipment. Training shall be sufficient to explain and demonstrate the location, function, and operation and shall be a minimum of four (4) hours for each item of Work. Training shall be given by a person familiar with the Project. Operation and Maintenance manuals must be available to the Owner prior to training and referenced during the training. Contractor to provide Owner with videos taken of the training(s), particularly of systems such as fire alarm, HVAC, and building management system(s). Contractor and Owner shall agree which systems will require videos of training.

7 TIME

7.1 DEFINITION OF OFFICIAL DATES

- A. The Contract Time is the period of time indicated in the Agreement for achieving completion of the Work. Time is of the essence for the Contract. The term day as used in reference to Contract Time shall mean calendar day.
- B. The Notice to Proceed from the Owner shall establish the official date the Work may commence and the start of the Contract Time.
- C. The date of Substantial Completion of the Work is the date established by the Architect. The date of beneficial occupancy or acceptance of the Work may be determined by the Owner but not effect the Contract Time or terms of the Agreement.
- D. The date of Final Completion is the date established by the Architect after Substantial Completion when the Work is complete in every detail. Retention may be withheld until after Final Completion.

7.2 SUBSTANTIAL COMPLETION

- A. Substantial Completion is the stage in the progress of the Work when the entire Work, or a designated portion thereof, is sufficiently complete in accordance with the Contract Documents to allow the Owner to use and occupy the entire Work or portion as intended. Prior to Substantial Completion the Contractor shall have inspected the Work, completed corrective measures, obtained all approvals necessary for occupancy, placed into operation all equipment and systems, and obtained the Architects concurrence that Substantial Completion of the Work has been achieved.
- B. When the Contractor considers that the Work, or designated portion thereof, is substantially complete, the Contractor shall provide a written notice to the Architect and Owner in which the Contractor certifies that the Work or portion is Substantially Complete, lists all remaining

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incomplete deficiencies of the Work, and requests inspection and acceptance. The failure to include any items on such list does not alter the responsibility of the Contractor to complete the Work in accordance with the Contract Documents.

- C. Upon receiving notice in accordance with paragraph 7.2.B, the Architect and/or Owner will review the Work or designated portion thereof. If the Architect determines the Work or portion is substantially complete, the Architect will establish a date of Substantial Completion. If the Architect determines the Work or portion is not Substantially Complete the Contractor will be notified. Contractor is required to initiate re-inspections by providing notice in accordance with Section 7.2B and reimburse the Owner for the cost of the reinspection.
- D. The guarantee period, and associated warranty period(s), shall begin on the date of Substantial Completion. A separate date of Substantial Completion shall be established for designated portions of Work according to the Contract Documents or as agreed to by Owner.
- E. Any Work used by Contractor prior to Substantial Completion shall be made new as of the date of Substantial Completion. Such Work may include lights, filters and systems or equipment requiring periodic maintenance.

7.3 LIQUIDATED DAMAGES

- A. Should the Work not be Substantially Complete, as defined herein, and within the Contract Time, damages will be sustained by the Owner. The Owner may impose liquidated damages to portions of the Work. As it may be extremely difficult, not feasible, or may be impracticable to use County resources to determine the amount of actual damage the County may suffer should Contractor fail to complete the work within the time specified, it is understood and agreed the Contractor shall pay the Owner as fixed and liquidated damages, and not a penalty, the amount set forth in the Agreement for each calendar day of delay in completion. Contractor and its surety shall be liable for the amount thereof pursuant to Government code Section 53069.85. It is therefore agreed that the Contractor will pay the Owner the amount specified in the Notice to Contractors Document 00 11 16, as and for the Owner's liquidated damages. The liquidated damages amount covers Owner's damages only and is not in lieu of the indemnification obligations set forth separately in Section 9 nor shall these liquidated damages cover damages, including delay damages, claimed by third parties. Third parties shall include other contractors working on the Project. In the event the Contractor fails to make such payment, the Owner may deduct the amount thereof from any money due or that may become due to the Contractor under the Contract and should the balance due under the Contract not be sufficient to cover the amount owed, the Owner shall have the right to recover the balance from the Contractor, or from the Contractor's sureties.
- B. The Owner may impose liquidated damages to portions of the Work.

7.4 USE AND OCCUPANCY PRIOR TO SUBSTANTIAL COMPLETION

- A. The Contractor agrees to use and occupancy of a portion of the Work by the Owner upon Substantial Completion.
- B. Prior to the Owner occupying a portion of the Work, a list of Work to be completed or corrected shall be prepared jointly by the Contractor and Architect.
- C. Occupancy by the Owner shall not be construed by the Contractor as being an acceptance of the Work by Owner of that part of the Work to be occupied.
- D. The Contractor shall not be held responsible for any damage to the occupied part of the Work resulting from the Owner's occupancy after Substantial Completion.

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- E. Occupancy by the Owner shall not be deemed to constitute a waiver of any claims which Owner or Contractor may have.
- F. Use and occupancy of a portion of the Work by the Owner prior to Substantial Completion does not relieve the Contractor of his responsibility to maintain all insurance and bonds required under the Contract until the Work is completed and accepted by Owner.

7.5 SCHEDULE

- A. Contractor shall submit to the Owner and Architect a schedule for the Work.

The schedule shall be a series of tasks representing the Contractor's plan for performing the Work including all activities both onsite and offsite, submittal due dates, submittal review periods, material purchasing, lead or fabrication times, a period for punchlist and corrections, final inspection and approvals, and other events or activities having an effect on the progress or completion of the Work. For each task, the schedule shall show the duration, the starting and finish dates, predecessors, successors, and the average manpower and equipment planned. The schedule shall be submitted in bar chart and pert chart format and with a separate task list showing all data in spreadsheet format. No single task on the schedule may exceed two weeks in duration. See General Requirements 01 00 00 for additional Schedule requirements.

(1) PRELIMINARY SCHEDULE

A. Submission

1. Submit the Preliminary Contract Schedule to Owner either within 10 working days after receipt of Notice of Award and/or with the Agreement.
2. Within seven (7) working days after receipt of the Preliminary Schedule, Owner will notify Contractor of its acceptance of, or its review comments about, the schedule so that appropriate adjustments may be made by Contractor in the development of the Schedule.

B. Form

1. Prepare the Preliminary Schedule in sufficient detail to demonstrate preliminary planning for the Work and to represent a practical plan to complete the Work within the Contract Time
2. Identify the following milestone events on the Preliminary Schedule:

- Demolition
- Utilities Shutdowns
- Exterior Work
- Rough Framing
- Interior Partitions
- Rough-Outs (Mechanical, Plumbing, Electrical and Fire Alarm, Fire Sprinklers)
- Trimming
- Electrical
- Interior Drywall
- Finishes
- Painting
- Signage
- Agencies' Inspections
- Beneficial Occupancy

Punchlist
Project Closeout

3. Identify all holidays and non-working days on the Preliminary Schedule.

C. Activities

1. Identify all Work activities which constitute the critical path, including any known material and equipment lead times.

2. Shutdowns for all utilities as determined from listing provided by Owner's Representative as part of Contract Documents.

(2) SCHEDULE

A. Submission

1. Submit the Schedule, also known as the Baseline Schedule, in the form and having general content acceptable to Owner and shall be based on the review and comments to or acceptance of the Preliminary Schedule, within ten (10) working days following Owner's written acceptance of the Preliminary Schedule.

2. Owner, with Owner's Representative will determine acceptability of the Schedule within seven (7) working days after its receipt.

3. No Application for Payment will be processed nor shall any progress payment become due until the Baseline Schedule is accepted by Owner in writing.

B. Form

1. The Schedule shall be suitable for monitoring progress of the Work, in sufficient detail to demonstrate adequate planning for the Work, and shall represent a practical plan to complete the Work within the Contract Time.

2. Identify the milestone events as indicated above including additional milestones identified by Owner upon review of the Preliminary Schedule.

3. Identify all holidays and non-working days on the Schedule.

4. If the Schedule is shown on more than one (1) sheet, provide a summary sheet.

C. Activities

1. Identify all Work activities in correct sequence for the completion of the Work. Work activities shall include the following:

a. Major Contractor-furnished equipment, materials, and building elements, lead times, and scheduled activities requiring submittals or Owner's prior approval.

b. Show dates for the submission, review, and approval of each submittal. Dates shall be shown for the procurement, fabrication, delivery, and installation of major equipment, materials, and building elements, and for scheduled activities designated by Owner.

c. For Submittals, a minimum of ten (10) working days shall be allotted in the Schedule for the Architect to review each submittal.

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- d. Contractor's internal pre-functional testing and final System test dates.
- e. Scheduled overtime Work if required by Contract Documents.
- f. Dates Contractor requests designated working spaces, storage areas, access, and other facilities to be provided by Owner.
- g. Dates Contractor requests orders and decisions from Owner on designated items.
- h. Dates Contractor requests Owner-furnished equipment.
- i. Dates Contractor requests Owner-furnished utilities.
- j. Connection and relocation of existing utilities.
- k. Connecting to or penetrating existing structures.
- l. Scheduled inspections as required by Codes, or as otherwise specified.

2. Identify all Work activities that constitute the critical path.

3. Critical Work activities are defined as Work activities which, if delayed or extended, will delay the scheduled completion of one or more of the milestones specified in this Section or the scheduled completion of the Work, or both. All other Work activities are defined as non-critical Work activities and are considered to have float.

4. Float is defined as the time that a non-critical Work activity can be delayed or extended without delaying the scheduled completion of milestones specified in this Section or the scheduled completion of the Work, or both. Neither Contractor nor Owner shall have an exclusive right to the use of float. The party using float shall document the effect on the updated Schedule.

5. Delays of any non-critical Work activity shall not be the basis for an extension of Contract Time until the delays consume the float associated with that non-critical Work activity and cause the Work activity to become critical.

6. The presentation of each Work activity on the Schedule shall include a brief description of the Work activity, the duration of the Work activity in days, and a responsibility code identifying the organization or trades performing the Work activity.

7. See 8.2 Contract Amount Breakdown – Schedule of Values for requirements to establish costs for each Work activity of the Schedule which cumulatively equal the total Contract amount.

(3) PROGRESS SCHEDULE

- A. Updating the Schedule provides the Owner with a schedule of the progress of the work (Progress Schedule). The Contractor must submit Progress Schedule(s) prepared in accordance with the requirements of the Contract Documents.
- B. Updating

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1. Review the Schedule with Owner once each week to incorporate in the Progress Schedule all changes in the progress, sequences, and scope of Work activities.
2. Prepare and submit to Owner an updated Schedule, as the Progress Schedule, once each month, or as mutually agreed.
 - a. A Progress Schedule shall accurately represent the as-built condition of all completed and in-progress Work activities as of the date submitted.
 - b. The Progress Schedule shall incorporate all changes mutually agreed upon by Contractor and Owner during preceding periodic reviews and all changes resulting from Change Orders, Field Orders and Amended Construction Documents.
 - c. Contractor shall perform the Work in accordance with the updated Schedule. Contractor may change the Project Schedule to modify the order or method of accomplishing the Work only with prior agreement by Owner.
3. Contractor shall submit the updated Schedule, as the Progress Schedule, in the form acceptable to Owner, at least five (5) working days prior to submitting the Application for Payment. Contractor will provide a written progress report of the Schedule to the Owner in a format approved by Owner.
4. Owner's Representative will determine acceptability of each Progress Schedule within five (5) working days after its receipt.
5. No Applications for Payment will be processed nor shall any progress payments become due until updated Progress Schedules are accepted by Owner.
6. The accepted Progress Schedule shall be the Schedule of record for the period it is current, shall be in compliance with the Contract Documents, and shall be the basis for the Owner's approval of the Contractor's monthly (or as mutually agreed) payment requests during that period.
7. The Owner's review and acceptance of the Contractor's updated Progress Schedule is for compliance with the requirements of the Contract Documents only. Review and acceptance by the Owner of the Contractor's Progress Schedule(s) does not mean approval of the sequence or duration of the tasks shown, and does not relieve the Contractor of any of the Contractor's responsibility for the accuracy or feasibility of the Schedule, or of the Contractor's obligation to meet the milestone dates established in the Schedule and the date of contract completion to the Contract Time.
8. The Owner's review and acceptance of the Contractor's Progress Schedule does not expressly or implicitly warrant, acknowledge, or admit the reasonableness of the logic, durations, cost, manpower or equipment loading indicated in the Progress Schedule.

(4) 3-WEEK LOOK AHEAD SCHEDULE

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- A. During the course of construction, Contractor shall provide a 3-week schedule at each construction meeting referred to as a 3-week look ahead schedule. This schedule shall indicate the construction schedule activities for that time period. This schedule shall identify any critical items impacting the Schedule or progress and any items requiring additional Work or Time.
 - B. The Contractor shall carry on with the Work, for the construction of the various elements of the project concurrently, to the extent reasonable, and shall not defer construction of any portion of the work in favor of any other portion without the express written approval of the Owner.
- B. The Schedule may be revised as required by the progress and conditions of the Work, change orders and all other factors that could influence the date of Substantial Completion and/or Contract Time.
 - C. Contractor shall post the current Schedule on the Project site in a location readily accessible to the Owner and Architect.
 - D. Weather delays shall be allowed for in the Contractor's Schedule. Additional time will be granted for adverse weather to the extent the number of scheduled work days lost due to weather.

7.6 DETERMINATION OF WEATHER DELAYS

- A. Except for rain, if weather conditions are the basis for delays for continuing or completion of the Work or any designated portion of the Work, Contractor must substantiate that the weather conditions were abnormal, based on the climatologically data for the immediate preceding 10-year period. The Contractor must establish that the adverse weather conditions could not have been reasonably anticipated to constitute a weather delay.
- B. When the amount of rain is considered to be abnormal, additional rain days will be allowed and extensions to the Contract Time(s) will be granted where the condition of the site (exterior or interior location) or access to the site as determined by the Owner, is such that Contractor can perform no Work identified on the current version of the Progress Schedule in effect at the time the delay occurred. Rainfall will be considered unusually severe only when the Days of Rain (defined as more than one-tenth (1/10th) of an inch of rain per day) in any month exceed the number of allowed rain days per month.
- C. No Contract Time extension for rain will be allowed for any month until the established number of allowed rain days for the that month have been exceeded. The allowable rain days per month for this Project are as follows:

January: 2
February: 2
March: 2
April: 0
May: 0
June: 0
July: 0
August: 0
September: 0
October: 2
November: 2
December: 2

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D. Contractor must exercise due diligence in protecting the Work and the Work site from the adverse impacts of weather by:

1. Taking appropriate preventative actions before anticipated inclement weather to protect the Work and Work site from the potential adverse effects of the weather;
2. Taking corrective action during the inclement weather to protect the Work and Work site from the actual and potential adverse effects of the inclement weather; and
3. Taking correction action after the inclement weather to remedy, prevent, and/or mitigate the negative impacts of the adverse weather on the Work and the Work site.

7.7 DELAY AND TIME EXTENSIONS

A. The Owner will consider extensions to the Contract Time for the following reasons only if they affect the Critical Path of the Official Progress Schedule.

1. Acts of God (as defined in PCC 7105 (b) (2)) or of the public enemy, acts of Government, acts of Owner, fires, floods, epidemics, quarantine restrictions, sanctioned strikes, freight embargoes, unusually severe weather, or delays of Subcontractors or Suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of both Contractor and such Subcontractors or Suppliers.
2. Delays in progress due to an act of neglect by Owner only for the amount of delay time that occurs after Contractor has notified Owner in writing and the Owner has had a reasonable time to respond to the notification.
3. An Approved Change Order that extends the Contract Time.

B. Within twenty-four (24) hours from the beginning of any critical path delay to the current updated Schedule, Contractor must notify Owner in writing of the causes of delay.

C. Within ten (10) working days from the end of any critical path delay to the Schedule, Contractor must submit two (2) hard copies and electronic data files of all supporting information to validate the impact of the delay on the Contract Time.

D. The Owner will ascertain the facts and the extent of the delay and adjust the Contract Time for completing the Work when, in Owner's judgment, the facts justify an adjustment. Owner's determination is final and conclusive.

E. Delay and Contractor's entitlement for delay will be determined as follows:

1. The following definitions apply to a Delay and Time Extension:
 - a. **"Excusable Delay"** means any delay in the Work caused by conditions beyond the control and without the fault or negligence of the Contractor.
 - b. **"Excusable Non-Compensable Delay"** means any Excusable Delay not solely the responsibility of the Contractor, such as, earthquake, fire, flood, and inclement weather conditions that caused a delay of Work on the critical path of the Schedule. The financial inability of the Contractor or any Subcontractor, Sub-subcontractor or Supplier, or the default of any Subcontractor, Sub-subcontractor or Supplier is not a condition beyond the Contractor's control. An Excusable Non-Compensable Delay may entitle the Contractor to an extension of the Contract Time, but will not entitle the Contractor to any adjustment of the Contract Sum.

c. **“Excusable Compensable Delay”** means any Excusable Delay caused by a delay of the Work on the critical path of the Schedule for which the Owner is solely responsible and which delay is unreasonable given the circumstances and not within the contemplation of the parties. An Excusable Compensable Delay may entitle the Contractor to an extension of the Contract Time and an adjustment of the Contract Sum.

d. **“Non-Excusable Delay”** means any delay in the Work resulting from causes within the control of the Contractor or due to the fault or negligence of the Contractor or its Subcontractors or Suppliers. A Non-excusable Delay shall not entitle the Contractor to an extension of the Contract Time or an adjustment of the Contract Sum.

2. Whenever the Contractor foresees any delay in the prosecution of the Work, the Contractor must notify the Owner in writing of the potential delay. Such notification must specify with detail the cause asserted by the Contractor for the potential delay and provide a description of the anticipated effect of the potential delay on the most recent updated Schedule including identification of the activity numbers of the affected activities. Failure of the Contractor to submit such a notice after recognition of any incident or event giving rise to the potential delay will constitute a waiver by the Contractor of any request for extension of the Contract Time, and no extension of the Contract Time will be granted as a consequence of such delay.

3. Within twenty-four (24) hours from the beginning of any critical path delay to the Progress Schedule, Contractor must submit written notice to the Owner of the delay. The notice must include identification of the affected activities, evidence of the cause of the delay, and within ten (10) working days of the end of the critical path delay, Contractor must submit a Time Impact Analysis per F. Time Impact Analysis.

4. Owner has no obligation to consider any request for extension to the Contract Time unless the Contractor satisfies the requirements set forth in the Contract Documents for providing notice of potential delay and submission of a Time Impact Analysis establishing the impact of the delay on the critical path of the latest Progress Schedule.

5. Owner is not responsible to the Contractor for any constructive acceleration due to Contractor's failure to comply with the submission and justification requirements of the Contract Documents for Contract Time extension requests. The Contractor's failure to perform in accordance with the latest Progress Schedule shall not be excused because the Contractor has submitted Contract Time extension requests, unless and until Owner approves such requests.

6. Extension to the Contract Time will not be allowed for delays on paths of activities containing Total Float Time per the latest Progress Schedule, providing such delay does not exceed the Total Float Time(s) on paths of activities on the latest Progress Schedule.

7. Any extension of Contract Time granted the Contractor pursuant to this section, does not constitute a waiver by Owner of, nor a release of the Contractor from, the Contractor's obligation to perform the Work within the Contract Time specified by the Contract Documents, as modified by the particular extension in question. Owner's decision to grant an extension of the Contract Time due to one circumstance set forth in one request, shall not be construed as a grant of an extension for any other circumstance or the same circumstance occurring at some other time, and shall not be viewed by the Contractor as a precedent for any other request for extension of the Contract Time.

SECTION 00 72 13 - GENERAL CONDITIONS

8. If Owner orders the Contractor to suspend Work pursuant to the Contract Documents, the Contractor will not be entitled to any extension of the Contract Time, damages resulting from the suspension, unless the Contractor can establish that the suspension was Ordered without reasonable justification.

F. Time Impact Analysis

1. The time impact analysis must provide information justifying the request for extension of the Contract Time and stating the extent of the adjustment requested for the alleged delay. Time impact analysis must be in form and content acceptable to the Owner and include, but not be limited to, the following:

- a. Time impact analyses must be based on analyzing the Progress Schedule in effect at the time the alleged delay or impact first occurred.
- b. The Contractor must present fragmentary Critical Path Method (CPM) type network windows (fragments) in time scaled precedent format, illustrating how Contractor proposes to incorporate the alleged delay into the Progress Schedule in effect at the time the alleged delay or impact first occurred.
- c. The Contractor must identify the activities that are proposed to be amended due to the alleged delay.
- d. The Contractor must identify the preceding and succeeding activities in the Official Progress Schedule to which the fragment(s) is to be connected.

H. Concurrent Delays

1. If an Excusable Non-Compensable Delay and an Excusable Compensable Delay operate to concurrently delay completion of the Work, the maximum extension of the Contract Time will be the number of Calendar Days from the commencement of the first delay to the cessation of the delay which ends last. Any adjustment of the Contract Sum will be in accordance with changes in the Work, and will be based only on the number of days of Excusable Compensable Delay, less the duration of the concurrence.
2. If a Non-Excusable Delay operates to concurrently delay completion of the Work with an Excusable Non-Compensable Delay, the maximum extension of the Contract Time will be the number of days of concurrent delay plus the non-concurrent portion of the Excusable Non-Compensable Delay. The entire delay is non-compensable.
3. If a Non-Excusable Delay operates to concurrently delay completion of the Work with an Excusable Compensable Delay the maximum extension of the Contract Time will be the number of days of concurrent delay plus the non-concurrent portion of the Excusable Compensable Delay. Any adjustment of the Contract Sum will be in accordance with changes in the Work, and will be based only on the non-concurrent portion of the Excusable Compensable Delay.
4. Where the period of concurrent delay is sixty (60) calendar days or longer, the Owner will pay 50% of labor and material cost escalations experienced as a result of the concurrent delay following Contractor's demonstration of the cost escalations to the reasonable satisfaction of Owner.

SECTION 00 72 13 - GENERAL CONDITIONS

8 PAYMENTS

8.1 CONTRACT AMOUNT

The Contract Amount as stated in the Agreement, including adjustments authorized under the terms of the Contract, is the total amount payable by the Owner to the Contractor for the complete Work.

8.2 CONTRACT AMOUNT BREAKDOWN – SCHEDULE OF VALUES

The Contractor shall, before the first application for payment, submit to the Architect and the Owner a Schedule of Values document which is a dollar value amount breakdown for the entire scope the Work of the Contract divided into categories so as to facilitate certification of completed Work for payment. The Schedule of Values shall be in such form as may be agreed upon by the parties and supported by such evidence as to its correctness that may allow the Architect and/or Owner's Representative to certify progress payments corresponding to the percentage of completed Work..

8.3 PROGRESS PAYMENTS

- A. The Owner shall make progress payments to the Contractor for labor and materials incorporated into the Work as called for by the Contract Documents and approved Change Orders. Not more often than once each month and on a day of each month agreed upon between the Owner and the Contractor, the Contractor shall submit to the Owner and the Architect, through the Owner's Representative, an application for payment consisting of a Certificate of Payment, a calculation of completed Work based on the approved payment breakdown and, if required by Owner, receipts, releases, or other evidence showing the Contractor's payments for materials, labor, Subcontractors, and any such information as the Owner may require. Payment shall not be owed if the application does not conform to these requirements.
- B. Payment for materials stored on site which have not been permanently incorporated into the Work is at the discretion of the Owner. Payment for materials stored off-site, whether or not specially fabricated for the Project, can be made only when payment for such materials has been previously approved by the Owner and shown on the approved payment breakdown and such payment shall be conditional upon submission by the Contractor of a Bill of Sale in a form acceptable to the Owner or other such evidence as is required by the Owner to establish the Owner's title to such material. All materials stored off-site shall be stored in a bonded warehouse at no additional expense to the Owner.
- C. The Contractor shall present the application for payment, as required herein, to the Architect for approval using the Owner's previously approved Schedule of Values. The Architect will review and adjust the Certificate of Payment to such amount as he decides is properly due and deliver it to the Owner for payment.
- D. The Owner will retain five (5) percent of the amount of each payment due the Contractor until after the date of Owner's Certificate of Project Completion has been accepted by the County.
- E. No Certificate of Payment issued nor payment made to the Contractor nor partial or entire use of occupancy of the Work by the Owner shall be an acceptance of any Work not in accordance with the Contract Documents.
- F. The Contractor shall not assign any monies due or to become due hereunder without the written consent of the Owner and of all sureties executing bonds on behalf of the Contractor in connection with this Contract.

SECTION 00 72 13 - GENERAL CONDITIONS

8.4 OWNER'S FAILURE TO ISSUE PAYMENT

Should the County fail to issue a progress payment to the Contractor for properly submitted, undisputed and approved amounts owed under the Contract within 30 calendar days, then the Owner shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure. Refer to the California Public Contract Code, Division 2, Part 2, Chapter 1, Article 8, Section 102.5 and other applicable sections. Contractor may, upon written notice to the Owner and provided the Owner does not pay the Contractor per the terms agreed to between the Owner and Contractor, stop Work only until Contractor receives the progress payment amount owed.

8.5 PAYMENTS WITHHELD

- A. The Owner may withhold payment, on account of subsequently discovered information, nullify the whole or a part of any progress payment or retention payment to such extent as may be necessary to protect the Owner from loss on account of:
1. Defective Work.
 2. Third party claims or reasonable evidence indicating probable filing of third- party claims.
 3. Failure of the Contractor to make payments to Subcontractors or for material, labor or equipment.
 4. The Owner's doubt that the Work can be completed for the unpaid portion of the Contract Amount.
 5. Damage to another contractor's work.
 6. Damage to Owner's property.
 7. Failure to pay fees in accordance with the Contract Documents.
 8. Owner's cost of correcting deficiencies in the Work or undertaking any Work.
 9. Liquidated damages or anticipated liquidated damages.
 10. Any amount owed to Owner or claimed by Owner.
 11. Contractor's failure to deliver as-built drawings, guarantees, operating manuals or other documents.
 12. Failure by Contractor to fulfill any Contract requirement.

8.6 FINAL PAYMENT AND RETENTION PAYMENT

- A. The final payment shall be the one made in response to the Contractor's one hundred percent (100%) complete application for payment which will bring the total paid to date to the Contractor to ninety-five percent (95%) of the Contract Amount. Contractor's acceptance of the final payment shall constitute a waiver of all claims by Contractor except those previously made in writing.
- B. The Owner is entitled to retain five percent (5%) of the amount of each payment due Contractor, as Retention, until at least sixty (60) calendar days after the date of recording the Notice of Completion, as per California Public Contract Code, Division 2, Part 1, Chapter 7, Section 7107.

SECTION 00 72 13 - GENERAL CONDITIONS

- C. As a prerequisite to the release of retention, Contractor shall sign a Release of Liens in a form prescribed by Owner.
- D. Contractor shall not be paid interest on retention.

9 INSURANCE

9.1 HOLD HARMLESS/INDEMNIFICATION

- A. To the full extent permitted by law, CONTRACTOR shall indemnify and save harmless the COUNTY, its officers, employees, and servants from all claims, suits, or actions of every name, kind, and description, brought for, or on account of: (A) injuries to or death of any person, including CONTRACTOR, its officers, employees and servants, or (B) damage to any property of any kind whatsoever and to whomsoever belonging, (C) any sanctions, penalties or claims of damages resulting from CONTRACTOR'S failure to comply with applicable laws, or (D) any other loss or cost resulting from the CONTRACTOR'S negligent or reckless acts or omissions or willful misconduct in connection with the performance of any work required of CONTRACTOR or payments made pursuant to this Agreement, provided that this shall not apply to injuries or damage for which the COUNTY has been found in a court of competent jurisdiction to be solely liable by reason of its own negligence or willful misconduct.
- B. The duty of CONTRACTOR to indemnify and save harmless as set forth herein, shall include the duty to defend as set forth in Section 2778 of the California Civil Code.
- C. The obligations set forth in this section shall continue beyond the term of this Agreement as to any act or omission which occurred during or under this Agreement.

9.2 INSURANCE

- A. The Contractor shall not commence Work under this Contract until all required insurance has been obtained and such insurance has been approved by the Owner. The Contractor shall furnish the Owner with Certificates of Insurance evidencing the required coverage, and there shall be a specific contractual liability endorsement extending the Contractor's coverage to include the contractual liability assumed by the Contractor pursuant to this Contract. Certificates of Insurance shall be filed with the Owner within ten (10) calendar days after award of the Contract. These certificates shall specify or be endorsed to provide that thirty (30) calendar days notice must be given, in writing, to the Owner of any pending change in the limits of liability or of any cancellation or modification of the policy.
- B. The Contractor shall have in effect during the entire life of this Contract Workers Compensation and Employers Liability Insurance providing full statutory coverage; and in case any work is sublet, the Contractor shall require all Subcontractors similarly to provide Workers Compensation and Employers Liability Insurance to full statutory limits of the California Labor Code. In signing this Contract, the Contractor makes the following certification, required by Section 1861 of the Labor Code:

"I (Contractor Name/Company), am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I (Contractor Name/Company) will comply with such provisions before commencing the performance of the work of this Contract".
- C. The Contractor shall take out and maintain during the term of this Contract such Bodily Injury Liability and Property Damage Liability Insurance as shall protect Contractor and any Subcontractor performing Work covered by this Contract, from any and all Claims for damages for bodily injury, including accidental death, as well as any and all Claims for property damage

SECTION 00 72 13 - GENERAL CONDITIONS

including third party property damage to include coverage on property in the care, custody and control of the Contractor, which may arise from the Contractor's operations under this Contract, whether such operations be by Contractor or by any Subcontractor or by anyone directly or indirectly employed by either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall not be less than the amount specified below. Such insurance shall include:

1. Comprehensive Commercial or General Liability Insurance
 - a. \$1,000,000 Bodily Injury/Property Damage Each Occurrence
 - b. \$2,000,000 Product/Completed Operations Aggregate
 - c. \$2,000,000 General Aggregate
 - d. \$50,000 Fire Damage Legal Liability
 - e. \$5,000 Medical Payments
 - f. Coverage shall include but not be limited to the following supplementary coverages:
 - Contractual Liability to cover liability assumed under the Agreement; Product and Completed Operations Liability Insurance;
 - Broad Form Property Damage Liability Insurance;
 - Explosion, collapse and underground hazards (deletion of the X, C, U exclusions) if such exposure exists; and
 - Independent Contractors.
 2. Motor Vehicle/Automobile Liability Insurance: \$1,000,000 Combined Single Limit.
 3. Workers' Compensation and Employer's Liability Insurance, Workers' Compensation Insurance Statutory benefits as provided by the California statute and Employer's Liability Limits as follows:
 - a. \$1,000,000 Bodily Injury with Accident – Each Accident
 - b. \$1,000,000 Bodily Injury by Disease – Policy Limit
 - c. \$1,000,000 Bodily Injury by Disease – Each Employee
- D. The Owner and its officers, agents, employees and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that the insurance afforded thereby to the Owner, its officers, agents, employees and servants shall be primary insurance to the full limits of liability of the policy, and that if the Owner or its officers, agents? and employees have other insurance against the loss covered by such a policy, such other insurance shall be excess insurance only.
- E. The Owner shall purchase and maintain at Owner's expense All Risk Property Insurance or Builder's Risk Insurance, excluding Earthquake and Flood coverage, in an amount covering all work and materials in the Contract, including that of Subcontractors, in an amount equal to the Contract Amount including adjustments. Subcontractors shall be included as insureds and the Owner shall be named as a Loss Payee as its interests may appear. Said insurance shall be maintained in complete coverage throughout the duration of the Contract until the one (1) year after the Completion Date of the Project.

9.3 FAILURE TO PROVIDE INSURANCE

If Contractor fails to provide insurance as required herein, the Owner, at its option, may take out and maintain such insurance as the Owner deems in its best interest and charge the cost thereof to the Contractor, which may be at a higher cost.

10 GUARANTEES

10.1 REQUIRED GUARANTEES

- A. In addition to guarantees required elsewhere in the Contract Documents, the Contractor shall

SECTION 00 72 13 - GENERAL CONDITIONS

guarantee all of the Work, and each Subcontractor shall guarantee his own Work, against defective material or faulty workmanship for a minimum of one (1) year after the date of Substantial Completion. All guarantees must be submitted in triplicate to the Architect on the Contractor's own letterhead in the form prescribed by Owner.

- B. In addition to the requirements of paragraph 10.1.A, all standard manufacturer warranties shall be passed to the Owner which may extend the warranty period beyond one (1) year.
- C. The date of guarantee and all warranties for the Work shall commence upon the Owner's agreed Substantial Completion Date, when the County achieves beneficial use and occupancy of the Project, or phase of the Project.
- D. In addition to the guarantees and warranties required by the Contract Documents, the Owner has all rights and remedies provided by law including those pertaining to latent defects.

10.2 REPAIR OF GUARANTEED WORK

- A. If repairs are required in connection with guaranteed Work, the Contractor shall promptly upon receipt of written notice from the Owner, and without expense to the Owner:
 - 1. Place in satisfactory condition in every detail all of such guaranteed Work;
 - 2. Make good all damage to the building, site, equipment, furniture, or contents which, in the opinion of the Owner, is the result of work not in accordance with the terms of the Contract Documents or disturbed in the process of correcting guaranteed Work.
- B. If the Contractor disturbs any work guaranteed under another contract in fulfilling the requirements herein he shall restore such disturbed work to a condition satisfactory to the Owner and guarantee such restored work to the same extent as it was guaranteed under the Contract.
- C. A new full term guarantee period shall apply to repaired work upon completion of repairs.
- D. If Contractor fails to proceed to comply with the terms of the guarantee to make repairs of defective work within seven (7) calendar days of Notice from Owner, the Owner may remedy the Contractor's failure by whatever means the Owner deems expedient. The Owner may, at any time, take measures to mitigate damage or reduce undesirable effects of defective work. All costs expended by Owner pursuant to this Section shall be paid by Contractor.

END OF DOCUMENT 00 72 13

SECTION 00 73 36 - SAN MATEO COUNTY
SUPPLEMENTARY GENERAL CONDITIONS EQUAL
EMPLOYMENT OPPORTUNITY (EEO) PROGRAM FOR
MINORITY EMPLOYMENT

1. STATEMENT OF INTENT

It is the intent of the Board of Supervisors of the County of San Mateo to prohibit and eliminate employment discrimination and to further the opportunities for minority persons to be gainfully employed in the performance of County building contracts. The Bidder's attention is directed to all the provisions set forth herein. The Board of Supervisors has by Ordinance No. 2174 added Title 2, Chapter 2.50 to Division II of the San Mateo County Ordinance Code prohibiting discrimination in employment and providing for an Equal Employment Opportunity Program by Contractors doing business with the County of San Mateo. The following provisions are a part of the contract documents.

2. LOWEST RESPONSIBLE BIDDER

Award of contract to the low bidder shall not be made until the requirements set forth in these Supplementary General Conditions have been complied with and reviewed by the County Compliance Officer and a satisfactory Equal Employment Opportunity Program as submitted by the low bidder has been accepted.

A. Criteria for Determining Lowest Bidder. Criteria to determine the acceptability of bids on construction contracts requiring public bidding and involving an expenditure of \$6,500 or more shall include but not be limited to the following:

1. Criteria of Compliance with Federal and State Laws. Each bidder shall submit with his bid a certification that he is in compliance with the Equal Employment Opportunity Requirement of Executive Order 11246, Title VII of the Civil Rights Act of 1973, the California Fair Employment Practices Act and any other Federal or State Laws and regulations relating to Equal Employment Opportunities and the provisions of this article and the Board established guidelines implementing them. See report form entitled "Certification of Compliance with Laws Prohibiting Discrimination" bound herein after Form of Proposal.
2. Certification of Intent to Develop and Implement an Equal Employment Opportunity Program. Each bidder shall submit with his bid a certification that he will develop, implement and maintain, during the course of work concerned, an affirmative action program in employment conducted without regard to race, religion, color, national origin, ancestry, physical or mental disability, or sex of the applicants. With this certification he shall submit any and all information which may be required by the County in connection with this program. As used in this Article, the term "minority" or "minority group" pertains to Latinos, Asians and Pacific Islanders, African Americans, American Indians, and women (regardless of her race or ethnicity). See report form entitled "Certification of Intent" bound herein after Form of Proposal.
3. Compliance by Subcontractors. The provision of this Section apply to any subcontractor engaged by the successful bidder, and each successful bidder shall notify his subcontractors of their obligations under the provisions of this Section.

3. PENALTIES FOR NON-COMPLIANCE WITH THE PROVISIONS OF THIS SECTION

A. Any bidder who fails to submit a proposed Equal Employment Opportunity Program or who is unable to make the certifications required in this Section of the Supplementary General Conditions may be disqualified from consideration for the award of the contract.

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SUPPLEMENTARY GENERAL CONDITIONS EQUAL
EMPLOYMENT OPPORTUNITY (EEO) PROGRAM FOR
MINORITY EMPLOYMENT

- B. If, after an award is made, the Contractor is found by the County or by a Federal or State agency empowered to make such findings to be in substantial or material violation of the Fair Employment Practices Act of the State of California, the Equal Employment Opportunity Requirement of Executive Order 11246, Title VII of the Civil Rights Act of 1964, Section 503 of the Rehabilitation Act of 1973, or of the provisions of this Section, he may be found to be in material breach of his contract, and the County shall have the power to cancel the contract in whole or in part, or alternatively, to deduct for each working day during which the Contractor is found to have been in such non-compliance, two (2) percent of the total amount payable to the Contractor.

4. WAIVER OF COMPLIANCE

In the event that the requirements of this ordinance are found to work an undue hardship upon a low bidder, said bidder shall submit evidence of such hardship to the Board of Supervisors and shall petition the Board for a waiver of these requirements. This waiver shall only be granted by the Board of Supervisors and shall become an integral part of the contract.

5. DEFINITIONS

- A. Equal Employment Opportunity Program. Equal Employment Opportunity Program is a set of specific and result oriented procedures to which a Contractor commits himself in order to achieve equal employment opportunity.
- B. Compliance Officer. A Compliance Officer is the County official designated by the County Manager to represent him in the administration of these guidelines and in the enforcement of the provisions of Title 2, Chapter 2.50 of the County Ordinance Code.

6. CERTIFICATION OF COMPLIANCE AND INTENT

Every bidder shall submit with his bid a Certificate of Compliance with laws prohibiting discrimination and a Certification of Intent to implement an equal employment opportunity program on a form furnished by the County, as required by Title 2, Chapter 2.50 of the County Ordinance Code.

7. EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

In addition to furnishing the Certification of Compliance, each Contractor will submit his Equal Employment Opportunity Program with his bid.

The EEO shall contain the following information:

- A. Analysis of current work force:
1. Total number of employees
 2. Numerical racial breakdown of employees by job classification
 3. Information on apprentices

These figures will provide the base by which the Contractor's EEO will be evaluated. Factors to be considered both in the original statistics and in any plans for future employment will include the percentage of minority population in San Mateo County, the availability of minority construction workers and the present minority representation in the various construction trades.

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MINORITY EMPLOYMENT

- B. The equal employment opportunity actions the Contractor has taken or will take to insure equal employment opportunity. These shall include:
1. Recruiting and hiring minority persons. If non-union personnel are employed this would involve employment advertising through sources which serve areas of minority population. These include local minority newspapers, referral agencies, high schools, vocational schools, and community groups. Specific information on these sources may be obtained from the Compliance Officer. Union employees will be recruited in accordance with applicable labor agreements. The Contractor will seek to have included or will reaffirm clauses in all labor agreements prohibiting discrimination based on race, religion, color, national origin, age, ancestry, physical or mental handicap, or sex. Assistance for admission into the craft of minorities over the traditional apprenticeship age is also suggested. The Contractor will support Bay Area Construction Opportunity Program or similar groups as recruiting sources and will urge all labor organizations with which he has agreements to use BACOP.
 2. Providing adequate opportunity for the upgrading or further training of all employees to insure equal opportunity in advancement and promotion. This might include a counseling service, information and assistance with night classes, or special career-directed program information.
 3. Appointing an Equal Employment Opportunity Coordinator - full time or as an additional duty. He will have the responsibility of administering an active program, informing company personnel and union representatives of this company policy and advising all subcontractors of their obligation to this program.
 4. Establishing or maintaining an apprenticeship or training program designed to insure hiring of additional minority employees in the journeyman or skilled classes, if possible. The Contractor is urged to support the Joint Apprenticeship Committee on this trade.
 5. Selecting minority subcontractor or subcontractors who are known for their ongoing program of apprenticeship for minorities. This includes advising minority contractor associations of bids for subcontractors. Joint ventures with minority subcontractors are encouraged.
- C. The EEO should state any previous experience the Contractor has had with similar plans and result of that effort. Any current equal employment opportunity plans should be described in detail and a copy attached, if printed plan is available. The Compliance Office will review the EEO submitted by each bidder in order to determine whether the program submitted complies with Title 2, Chapter 2.50 of the County Ordinance Code and these guidelines.

The EEO as submitted will be kept on file by the Compliance Officer. If the Contractor bids for other county contracts, he may refer to the EEO on file and state any changes, but will not be required to refile his program.

The Compliance Officer may request additional information from the bidder and will be available to answer questions relative to the guidelines and to advise those seeking assistance of resources known to him. He will not be responsible for the service or lack

SECTION 00 73 36 - SAN MATEO COUNTY
SUPPLEMENTARY GENERAL CONDITIONS EQUAL
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of service rendered by the resources recommended, nor will he develop an EEO for any bidder, or serve as a recruiter for any bidder.

Bidders may revise their EEO after consultation prior to award of contract. Deficiencies will be discussed and appropriate remedies suggested. If bidders withdraw their EEO for revision, their revised program must be submitted by a date established by the Compliance Officer.

The Compliance Officer will determine whether the low bidder's EEO is acceptable and will report to the appropriate county department. The EEO's of each subcontractor of the low bidder will also be evaluated by the Compliance Officer.

8. INCLUSION OF EEO AND CERTIFICATIONS

Upon award of the contract by the Board of Supervisors, the EEO and Certifications for the prime contractor and all subcontractors, which have been approved and accepted by the County, will become an integral part of the contract and subject to the provisions thereof.

9. PERFORMANCE OF CONTRACTOR

- A. The Contractor will post, in conspicuous places available to employees and applicants for employment, notices to be provided by the County, stating that the Contractor is obliged to comply with the provisions of these guidelines and Title 2, Chapter 2.50 of the County Ordinance Code. These notices will also be sent to all union and employee organizations and other recruiting sources providing employees to the Contractor.
- B. All announcements of job openings will include the statement: "An Equal Opportunity Employer".
- C. The Contractor will make written Progress Reports on a form provided by the County to illustrate the effectiveness of his EEO at intervals established by the County.
- D. The Compliance Officer will monitor the performance of the EEO until completion of the contract and will report the progress of the Contractor in living up to his EEO to the County Manager.
- E. The Contractor shall permit, during Contractor's normal business hours and at Contractor's place of business, access by the County to his records of employment, employment advertisements, application forms and other data and records pertaining to Contractor's employment practices, for the purpose of determining whether Contractor is complying with the Non-Discrimination and Equal Employment Opportunity rules of the County.

10. PERFORMANCE OF SUBCONTRACTORS

- A. All subcontractors listed in a general Contractor's bid are subject to all the provisions of these guidelines and Title 2, Chapter 2.50 of the County Ordinance Code.
- B. All subcontractors will file their Certifications of Compliance and Intent and their EEO with the Equal Employment Coordinator of the prime Contractor for transmittal to the County, after award of the contract has been made.

END OF DOCUMENT

**COUNTY OF SAN MATEO
EQUAL BENEFITS COMPLIANCE ORDINANCE NO. 4324, CHAPTER 2.84**

2.84.010 Definitions

For the purposes of this chapter:

(a) "Contract" means a legal agreement between the County and a Contractor for public works, consulting, or other services, or for purchase of supplies, material or equipment for which the consideration is in excess of \$5,000.

(b) "Contractor" means a party who enters into a Contract with the County.

(c) "Contract Awarding Authority" means the Board of Supervisors or the individual authorized by the Board of Supervisors to enter into Contracts on behalf of the County.

(d) "Domestic Partner" means any person who is registered as a domestic partner with the Secretary of State, State of California registry or the registry of the state in which the employee is a resident.

(e) "Employee Benefits" means the provision of any benefit other than pension and retirement benefits provided to spouses of employees or provided to an employee on account of the employee's having a spouse, including but not limited to bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; vacation; travel benefits; and any other benefits given to employees, provided that it does not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state law. (Ord. 4324, 08/15/06)

2.84.020 Discrimination in the provision of benefits prohibited

(a) No Contractor on a County Contract shall discriminate in the provision of Employee Benefits between an employee with a domestic partner and an employee with a spouse, subject to the following conditions:

1. In the event that the Contractor's actual cost of providing a particular benefit for the domestic partner of an employee exceeds that of providing it for the spouse of an employee, or the Contractor's actual cost of providing a particular benefit to the spouse of an employee exceeds that of providing it for the domestic partner of an employee, the Contractor shall not be deemed to discriminate in the provision of Employee Benefits if the Contractor conditions providing such benefit upon the employee's agreement to pay the excess costs.

2. The Contractor shall not be deemed to discriminate in the provision of Employee Benefits if, despite taking reasonable measures to do so, the Contractor is unable to extend a particular employee benefit to domestic partners, so long as the Contractor provides the employee with a cash payment equal to the Contractor's cost of providing the benefit to an employee's spouse.

(b) The Board of Supervisors may waive the requirements of this Chapter when it determines that it is in the best interests of the County. The County Manager may waive the requirements of this chapter for Contracts not needing the approval of the Board of Supervisors where waiver would be in the best interests of the County for such reasons as follows:

1. Award of a Contract or amendment is necessary to respond to an emergency;
2. The Contractor is a sole source;
3. No compliant Contractors are capable of providing goods or services that respond to the County's requirements;
4. The requirements are inconsistent with a grant, subvention or agreement with a public agency;
5. The County is purchasing through a cooperative or joint purchasing agreement.

(c) Contractors should submit requests for waivers of the terms of this Chapter to the Contract Awarding Authority for that Contract, or in the case of Contracts approved by the Board, the County Manager.

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(d) The Contract Awarding Authority, or in the case of Contracts approved by the Board, the County Manager, may reject an entity's bid or proposals, or terminate a Contract, if the Contract Awarding Authority determines that the entity was set up, or is being used, for the purpose of evading the intent of this Chapter.

(e) No Contract Awarding Authority shall execute a Contract with a Contractor unless such Contractor has agreed that the Contractor will not discriminate in the provision of Employee Benefits as provided for in this Chapter. (Ord. 4324, 08/15/06)

2.84.030 Application of Chapter

The requirements of this Chapter shall only apply to those portions of a Contractor's operations that occur (a) within the County; (b) on real property outside of the County if the property is owned by the County or if the County has a right to occupy the property, and if the Contractor's presence at that location is connected to a Contract with the County; and (c) elsewhere in the United States where work related to a County Contract is being performed. The requirements of this Chapter shall not apply to subcontracts or subcontractors of any contract or Contractor. (Ord. 4324, 08/15/06)

2.84.040 Powers and duties of the County Manager

The County Manager's office shall have the authority to:

(a) Adopt rules and regulations, in accordance with this Chapter and the Ordinance Code of the County of San Mateo, establishing standards and procedures for effectively carrying out this Chapter.

(b) Receive notification from employees of Contractors regarding violations of this Chapter.

(c) Determine and recommend to the Board of Supervisors for final decision the imposition of appropriate sanctions for violation of this Chapter by Contractors including, but not limited to:

1. Disqualification of the Contractor from bidding on or being awarded a County contract for a period of up to 5 years; and;
2. Contractual remedies, including, but not limited to termination of contract;
3. Liquidated damages in the amount of \$2,500;

(d) Examine Contractors' benefit programs covered by this chapter;

(e) Impose other appropriate contractual and civil remedies and sanctions for violations of this chapter;

(f) Allow for remedial action after a finding of non-compliance, as specified by rule;

(g) Perform such other duties as may be required or which are necessary to implement the purposes of this Chapter. (Ord. 4324, 08/15/06)

2.84.050 Date of Application

The provisions of this Chapter shall apply to any Contract awarded or amended on or after July 01, 2001, provided that if the Contractor is then signatory to a collective bargaining agreement, this Chapter shall only apply to any Contract with that Contractor which is awarded or amended after the effective date of the next collective bargaining agreement. (Ord. 4324, 08/15/06)

END OF DOCUMENT

SECTION 01 10 00 – SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Project Information.
 - 2. Work covered by the Contract Documents.
 - 3. Work under separate contracts.
 - 4. Use of premises.
 - 5. Owner's occupancy requirements.
 - 6. Specification formats and conventions.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: County of San Mateo Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only
 - 1. Project Location: 400 County Center, Redwood City, CA 94063
- B. Owner: County of San Mateo
- C. Owner's Representative:
 - King Leong
 - Capital Project Manager II
 - 555 County Center
 - Redwood City, CA 94603
- D. Prime Professional Consultant:
 - VTX, A Division of Gannett Fleming, Inc.
 - 3838 North Central Avenue, Suite 1900
 - Phoenix, AZ 85012
- E. Architect:
 - Architekton
 - 464 South Farmer Avenue. Suite 101
 - Tempe, AZ, 85281
- F. Structural Engineer:
 - Gannett Fleming, Inc.
 - 3838 North Central Avenue, Suite 1900
 - Phoenix, AZ 85012
- G. MPE Engineer:
 - LSW Engineers
 - 2333 W. Northern Avenue, Suite 9
 - Phoenix, AZ 85021
- H. The Work, per approved plans dated June 3, 2022, and Project Manual & Contract Documents dated December 5, 2022, consists of the following:
 - 1. Renovation and modernization of two (2) traction elevators with related electrical and mechanical systems upgrades,

1.3 WORK UNDER OTHER CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

SECTION 01 10 00 – SUMMARY

Coordinate the Work of this Contract with work performed under separate contracts.

1.4 USE OF PREMISES

- A. General: Contractor shall have full use of premises for construction operations, including use of Project site, during construction period. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- B. General: Contractor shall have limited use of premises for construction operations as indicated on the Contract Drawings.
- C. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine constructions operations to boundaries as indicated on site plan, within the property line and phasing plan.
 - 2. Sidewalks, Driveways and Entrances: Keep sidewalks, driveways and entrances serving premises and public use areas available to the General Public, Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
 - b. Schedule improvements to the building areas to minimize impacts to access by the public. All related improvements will need to be coordinated by the Contractor with the County and Contractor is responsible for all required encroachment permits and conditions thereof.

1.5 OWNER'S OCCUPANCY REQUIREMENTS

- A. Owner Occupancy: Owner will not vacate the premises prior to Notice to Proceed to the start of construction and during the entire construction period.

1.6 WORK RESTRICTIONS

- A. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet (7.6 m) of entrances, operable windows, or outdoor air intakes.

1.7 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the CSI/CSC's "Master Format" numbering system.
 - 1. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text

SECTION 01 10 00 – SUMMARY

for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

- a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

-END OF SECTION-

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SECTION 01 11 00 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: This specification covers all work to complete the modernization of (2) two geared traction elevators located at the Hall of Justice Building in the County of San Mateo. The Contactor shall be responsible for the modernization of the elevators with new vertical equipment. Upgrade of each car and associated equipment components with new controllers, machines, door operation equipment, fixtures, and cab interiors per contract documents. In addition, the Contractor shall be responsible for all elevator modernization work, ancillary and incidental work including, but limited to:
1. New Controllers with VVVF AC Drives.
 2. New gearless ACPM machines.
 3. Elevator cab full swing return panels/fixtures to be provided by Innovations Industries or approved equal.
 4. New hall stations to be provided by Innovations Industries or approved equal.
 5. New Digital Hall and Car position Indicators to be provided at all landings adjacent to door opening.
 6. New Hoistway/Car door equipment to be provided.
 7. New Hoist cables to be provided.
 8. New Deflector sheaves to be provided.
 9. New counterweight assembly.
 10. New Car and counterweight roller guides to be provided.
 11. New Car Landing System to be provided.
 12. New field wiring and traveling cables to be provided.
 13. New electronic door reopening devices to be provided.
 14. Perform all associated Electrical work.
 15. Perform all Fire Life Safety work.
 16. Perform all associated Mechanical work.
 17. Removal of all non-related equipment in the machine rooms.
 18. Secure Final Acceptance for the replacement of two (2) Elevators and all associated work required for Final Acceptance.
- B. While specifications address requirements for standards, it is of utmost important that all existing equipment retained during the modernization is made to operate as new and warranted and guaranteed as if new.

1.2 GENERAL RESPONSIBILITIES

- A. Contractor shall insure that all work is performed in accordance with the requirements of Local, State, and Federal codes and regulations which govern the requirements of the work specified. All requirements from the Authority Having Jurisdiction (AHJ) is the responsibility of the Contractor.
- B. Contractor shall perform thorough field surveys and examinations in addition to providing engineering, labor, materials, storage, tools, equipment, supervision and transportation in order to fulfill the requirements of the contract documents and provide for the modernization of the elevators, in a first-class manner and in accordance with the requirements in order to provide a complete turn-key project to the Owner that meets all State, Federal and Local code requirements.
- C. Contractor shall provide all required staging, hoisting and movements for the installation of the new vertical equipment and for the removal of the existing vertical equipment as required.
- D. Contractor is responsible for coordination, scheduling, and supervision of work by suppliers and subcontractors.

SECTION 01 11 00 – SUMMARY OF WORK

- E. Contractor is responsible to perform work that is not specifically identified in the contract documents but required to provide a complete and code compliant elevator modernization.
- F. Contractor is responsible to perform all demolition and provide required cutting, alterations, and removal as may be required.
- G. Contractor is responsible for keeping the premises clean at all times during performance of the work. All removed or demolished equipment must be removed from the project on a daily basis.
- H. Contractor is responsible for providing construction containment to maintain air quality and to contain construction dust and debris transmission outside of work area as required by Owner.
- I. Contractor is to take positive action to protect all existing surfaces and facilities from any damage resulting from construction operations unless modifications to the surfaces or facilities are required as part of the Contract.
- J. Contractor shall provide scaffolding, ladders and other equipment for installation of equipment and materials including protection features and as required by the Owner Representative to inspect the quality of work.
- K. Contractor is responsible for the conduct of his workers and those of his subcontractors. Any employee of the contractor or subcontractor may be removed from the job site by Owner Representative at his discretion if conduct of such employee is deemed to be unacceptable.
- L. Contractor is responsible for the safety of his and his subcontractors' workers as well as building occupants and visitors for the duration of the project and as a minimum the Contractor must adhere to OSHA standards. Contractor is required to submit for approval a safety plan that illustrates the standards and procedures to be adhered to throughout the project prior to starting any work activities.
- M. Contractor is responsible for the overall quality control for the project and is required to submit a quality control plan for approval by Owner Representative prior to starting any work activities.

1.3 RELATED WORK TO BE PERFORMED

- A. Hoistway and Pit Work
 1. Bevel cants not less than 75° from the horizontal on any rear or side wall ledges and beams that project or recess 4" or more into the hoistway. Not required on hoistway divider/spreader beams.
 2. Cutting and patching walls and floors.
 3. Pit access ladder for each elevator.
 4. Working platform per contract drawings.
 5. Protect open hoistways and entrances during construction per OSHA standards.
 6. Protect car enclosure, hoistway entrance assemblies, and special metal finishes from damage.
- B. Machine Rooms
 1. Paint walls and floor.
 2. Provide two-way communication between machine rooms and elevator cabs if required.
 3. Emergency telephone line to each individual elevator control panel in each elevator machine room.
 4. Access for elevator equipment removal and installation.
- C. Perform all associated Electrical work.

SECTION 01 11 00 – SUMMARY OF WORK

1. New service disconnects per contract drawings.
 2. New 110 volt disconnects.
 3. Additional machine room lighting (LED).
 4. New GFCI outlets.
 5. New pit lighting/switches and GFCI outlets.
- D. Perform all Fire Life Safety work.
1. Reprogramming of Fire Control Panel will be required.
 2. Emergency power requirements including but not limited to monitoring and transfer pre-notification.
 3. Status of vertical equipment will be required on emergency power lobby panel and/or Fire Control Room.
- E. Perform all associated Mechanical work.
- F. All requirements by the Authority Having Jurisdiction (AHJ) is the responsibility of the Contractor.

1.4 WORK SEQUENCE

- A. Contractor will perform work in stages. Order of elevator modernization to be provided by Owner Representative. Contractor to assume that only one (1) traction elevator may be taken out of service for modernization at a time.

1.5 USE OF SITE

- A. Owner: Owner intends to use site during construction period for normal operations. Contractor shall allow for use of site by:
1. Owner's personnel.
 2. The Public.
 3. Work by Owner.
- B. Time Restrictions: Coordinate with Owner.
- C. Contractor operations at project site shall be confined to areas permitted by law, ordinances, permits, contract documents, and Owner's specific instructions.
- D. Contractor shall stage material in area located as directed by the Owner. Additional storage areas will not be provided to the Contractor.
- E. Contractor shall not place material on floors that exceeds the structures flood loading capacity.
- F. Contractor shall move stored material which interferes with building operations or work by other trades.
- G. Contractor is responsible for protection and security of all Contractor tools and stored materials at the job site.
- H. Contractor is responsible for the removal of all packaging, scrap materials, dirt, and demolition debris from the project site on a daily basis.

1.6 OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate

SECTION 01 11 00 – SUMMARY OF WORK

Owner usage at adjacent facilities. Perform the Work so as not to interfere with Owner's operations.

B. Owner Operations:

1. At no time during the work shall Contractor place, or cause to be placed, materials or equipment, or other items, at a location that would impede or impair access to or from the present facilities for customers, employees or delivery personnel.
2. Contractor shall cooperate with the Owner in providing traffic control during course of construction in order to minimize inconvenience to Owner's customers.
3. Utility service to existing building(s) shall not be interrupted without prior written approval from Owner.

1.7 SPECIAL SITE CONDITIONS

- A. The Contractor shall be completely responsible for protecting the existing building from damage and/or injury due to this Work and shall repair at his expense and to the owner's satisfaction, all areas damaged as a result of his Work.
- B. Contractor is responsible for providing construction containment to maintain air quality and to contain construction dust and debris transmission outside of work area as required by Owner.

1.8 REFERENCE DATA

- A. Reference data made available to the Contractor is for the Contractor information only, and neither the Owner nor the Owner's Manager/Representative assume any responsibility for the Contractor conclusions.

1.9 SUMMARY

- A. General provisions of the contract and other Division 01 Specifications Sections apply to all sections. The Contract Documents are complementary and what is required by one shall be as binding as if required by all.
- B. Conflicts or discrepancies among the Contract Documents shall be resolved in the following order of priority.
 1. Amendments and revisions (such as change orders) of later date take precedence over those of earlier date.
 2. The agreement.
 3. The supplementary conditions.
 4. The general conditions.
 5. Specifications govern for quantity and location. Specifications govern for quality and performance. In the event of ambiguity or conflicts, the greater quantity and the better quality shall govern.

1.10 SPECIAL INSURANCE

- A. Contractor's Commercial Liability insurance shall contain no exclusion that would deny coverage for any claim arising out of or contributed to by any fungus, mildew, and mold or resulting allergens. If such exclusion exists and cannot be removed by endorsements, Contractor shall submit proof of coverage for fungus, mildew, mold or resulting allergens under a pollution legal liability or Contractors pollution liability policy.

SECTION 01 11 00 – SUMMARY OF WORK

1.11 PERMITS

- A. Contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the work which are customarily secured after execution of the contract and which are legally required. This includes all work as required by the County of San Mateo and the State of California to complete the Vertical Project. Copies of Acceptance documents shall be supplied to owner at completion of respective work. Contractor is responsible for the Final Acceptance from the County of San Mateo and State of California to secure Final Acceptance for this project.
- B. If required by governmental authority, Owner will make application for permits and licenses using forms obtained and prepared by the Contractor and with all costs paid by the Contractor.

1.12 TAXES

- A. Contractor shall pay all sales, consumer, use and other similar taxes for the work or portions thereof provided by the Contractor, that are legally enacted at the time of Bids are received, whether or not yet affective.

1.13 DEFINITIONS

- A. Action submittals: Written and graphic information that requires Owner Representative responsive action.
- B. Informational Submittals: Written information that does not require Owner Representative responsive action. Submittal may be rejected for not complying with requirements.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION 01 11 00

SECTION 01 25 13 – SUBSTITUTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and Supplemental General Conditions and other Division 01 General Requirements, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling requests for Substitutions.
- B. Pre-bid substitutions will not be considered. No Substitution request will be accepted or considered by County prior to bid.
- C. Procedural requirements governing the Contractor's selection of products and product options are included under General Requirements - Product Requirements.

1.3 DEFINITIONS

- A. Definitions used in this Section are not intended to change or modify the meaning of other terms used in the Contract Documents.
- B. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents are considered requests for "substitutions." Where phrases such as "or equal" or "or equal as approved by the Architect" occurs in the Contract Documents, do not assume that materials or equipment will be approved as equal unless the item has been specifically approved for this work by the Architect prior to Bid Opening Date, or as otherwise allowed in these Contract Documents.

The following are not considered substitutions:

1. Revisions to Contract Documents requested by the Owner or Architect.
2. Specified options of products and construction methods included in Contract Documents.
3. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.4 SUBMITTALS:

- A. If the Contractor desires to use material or equipment other than that specified, they shall submit a request for approval of such substitution, in writing, to the Construction Manager.
Product Substitutions for all Specification Sections must be requested within the time period specified in the general conditions. Substitution Request Form: Use CSI Form 13.1A.
- B. Submit Substitution Request packages using the form provided and, in a quantity, to be returned to the Contractor plus four (4) copies of each request for substitution for review by the Architect.
- C. Identify the product, or the fabrication or installation method to be replaced in each

SECTION 01 25 13 – SUBSTITUTIONS

request. Include related Specification Section and Drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:

1. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.
2. Samples where applicable or requested.
3. A detailed, side-by-side comparison of the significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include but is not necessarily limited to elements such as size, weight, durability, performance and visual effect.
4. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Contractors will become necessary to accommodate the proposed substitution.
5. A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
6. Cost information, including a proposal of the net change, if any, in the Contract Sum.
7. Certification by the Contractor that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.
8. The Contractor warrants that they have investigated the proposed product and determined that it is equal to or superior in all respects to that indicated or specified.
9. The Contractor waives claim for additional costs and time associated with the proposed product, which may subsequently become apparent.
10. The Contractor shall provide a signed statement that the proposed product is in full compliance with the Contract Documents, and applicable regulatory requirements, requires no changes to specified controls and monitoring systems that may be specified in other Sections, and Certify that the Contractor will be responsible for coordination at no additional expense to the Owner
11. The Contractor shall provide information on availability of maintenance service, and source of replacement materials, and provide a sample of Manufacturer's standard form of guarantee or warranty for proposed product.

1.5 CONSTRUCTION MANAGER'S ACTION

- A. Within ten (10) days of receipt of the request, the Construction Manager will notify the Contractor of acceptance or rejection of the proposed substitution. The Architect at their sole discretion will determine the acceptability of proposed products and their

SECTION 01 25 13 – SUBSTITUTIONS

determination shall be final. If a decision on use of a proposed substitution cannot be made or obtained within the time allocated, use the product specified by name in the Contract Documents.

- B. No consideration will be given to a substitute product unless, in the Architect's judgment, it complies with the following conditions.
 - 1. Substitution Request is complete.
 - 2. It is equal in quality, performance and serviceability.
 - 3. Its use does not entail changes in details or related construction.
 - 4. It is acceptable in regard to design and aesthetic effect.
 - 5. There is a cost and/or time advantage to the Owner.
- C. Acceptance of a product shall not relieve the Contractor from responsibility for the proper execution of the Work and any other requirements of the Contract Documents.
- D. If a proposed product is not accepted, use the product originally specified or indicated in the Contract Documents.
- E. No products other than those indicated or specified in the Contract Documents shall be purchased or incorporated in the Work without the Architect's prior written acceptance.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Conditions: The Contractor's substitution request will be received and considered by the Architect when one (1) or more of the following conditions are satisfied, as determined by the Architect; otherwise, requests will be returned without action except to record noncompliance with these requirements.
 - 1. Extensive revisions to Contract Documents are not required.
 - 2. Proposed changes are in keeping with the general intent of the Contract Documents.
 - 3. The request is timely, fully documented and properly submitted.
 - 4. The request is directly related to an "or equal" clause or similar language in the Contract Documents.
 - 5. The Specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 - 6. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.

SECTION 01 25 13 – SUBSTITUTIONS

7. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or Separate Contractors, and similar considerations.
 8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 9. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
 10. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provides the required warranty.
- B. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents, does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

PART 3 - EXECUTION (not used)

-END OF SECTION-

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SECTION 01 25 13 – SUBSTITUTIONS



**SUBSTITUTION
REQUEST**
(After the Bidding Phase)

Project: Insert project name Substitution Request Number: For the Architect to fill in

From: Insert your name and company name

To: Insert name of Architect, Engineer or GC Date: Insert the current date

A/E Project Number: Fill in if you know the number

Re: Substitution request Contract For: Insert your contract scope (in general)

Specification Title: Insert spec title from specification book Description: Copy section title from specification Section: Copy from spec book

Page: insert page Article/Paragraph: insert para

Proposed Substitution: _____ Manufacturer: _____

Address: _____ Phone: insert plant phone number Trade Name: _____

Model No.: _____ Installer: insert subs company Address: Insert subs address Phone: insert subs phone number

History: New product 2-5 years old 5-10 years old More than 10 years old

Differences between proposed substitution and specified product: _____

Point-by-point comparative data attached - REQUIRED BY A/E.

Reason for not providing specified item: _____

Similar Installation:

Project: List a completed project Architect: Insert name of Architect on completed project

Address: Insert project address Owner: Insert name of Owner on completed project

Date Installed: Proposed substitution affects other parts of Work:

No Yes; explain _____

Savings to Owner for accepting substitution: _____ (\$ _____).

Proposed substitution changes Contract Time: No Yes [Add] [Deduct] _____ days.

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION

REQUEST (Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: Insert submitters name, normally project manager for sub

Signed by: Submitter to sign

Firm: Insert Submitters company name

Address: Insert

Telephone: Insert company phone number

Attachments: List name of attachments

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01330. Substitution approved as noted
- Make submittals in accordance with Specification Section 01330. Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Additional Comments: Contractor Subcontractor Supplier Manufacturer A/E _____

SECTION 01 29 00 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

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

1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including; Application for Payment forms with Continuation Sheets, Submittals Schedule and Contractor's Construction Schedule.
 2. Submit the Schedule of Values to the Construction Manager at earliest possible date but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.
 3. Sub schedules: Where the Work is separated into phases requiring separately phased payments, provide sub schedules showing values correlated with each phase of payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one-line item for each Specification Section.
1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Submit draft of AIA Document G703 Continuation Sheets.
 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate. (Include separate line items under required principal subcontracts for operation and maintenance manuals, punch list activities, Project Record Documents, and demonstration and training in the amount of 5 percent of the Contract Sum.)
 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 7. Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 8. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.

SECTION 01 29 00 - PAYMENT PROCEDURES

9. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Construction Manager and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Times: Progress payments shall be submitted to CM by the 25th of the month. Provide a "draft copy" of proposed % complete values for review by the Construction Manager, Architect and Owner. The period covered by each Application for Payment is one month, ending on the last day of the month.
- D. Payment Application Forms: Use forms provided by Owner as form for Applications for Payment.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- F. Transmittal: Upon approval of the "draft copy" by the Construction Manager, Architect and Owner, submit a signed and notarized original copy of each Application for Payment to the Construction Manager by a method ensuring receipt (within 24 hours). Submittal shall include waivers of lien and similar attachments if required.
 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
 2. Contractor shall submit a Construction Schedule Update (hard copy and electronic copy) in accordance with Section 01 32 16 (Construction Progress Documentation) along with the final copies of each months Application for Payment.
 3. Contractor shall submit copies of the current months Photographic Documentation (electronic copy) in accordance with Section 01 32 33 (Photographic Documentation) along with the final copies of each months Application for Payment.
- G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.

SECTION 01 29 00 - PAYMENT PROCEDURES

4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary, if not final).
 4. Schedule of unit prices.
 5. Submittals Schedule (preliminary, if not final).
 6. List of Contractor's staff assignments.
 7. List of Contractor's principal consultants.
 8. Copies of building permits.
 9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 10. Initial progress report.
 11. Report of preconstruction conference.
 12. Certificates of insurance and insurance policies.
- I. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent (100%) completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706-1994, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A-1994, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707-1994, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 9. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

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SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Coordination Drawings.
 - 2. Project meetings.
 - 3. Requests for Interpretation (RFIs).
 - 4. Project Web site (web-based project management software).
- B. See Section 01 73 00 "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

1.2 DEFINITIONS

- A. RFI: Request for Information from Contractor seeking interpretation or clarification of the Contract Documents.

1.3 WEB-BASED PROJECT MANAGEMENT SOFTWARE

- A. Software: Prolog Converge will be the software package utilized to manage the following processes:
 - 1. Requests for Information
 - 2. Submittals
 - 3. Change Management Documentation
 - 4. Daily Report Management
 - 5. Meeting Notes
 - 6. Document Management (including Photos)
 - 7. Close-Out Submittals
- B. The Contractor will be required to utilize Converge for all of the above processes. The Contractor may, at their option, utilize their own software for their own management purposes, but data must still be entered into the Prolog Converge web-based software. Data entered into other management systems will not be recognized by the project team.
- C. Licenses: Three (3) Licenses will be provided to the Contractor at no cost. Additional licenses will be available at a cost of \$60 per month per license.

1.4 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

3. Make adequate provisions to accommodate items scheduled for later installation.
 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's Construction Schedule.
 2. Preparation of the Schedule of Values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Pre-installation conferences.
 7. Project closeout activities.
 8. Startup and adjustment of systems.
 9. Project closeout activities.

1.5 SUBMITTALS

- A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.
1. Content: Project-specific information, drawn accurately to scale. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:
 - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - b. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
 2. Sheet Size: At least 8-1/2 by 11 inches (215 by 279 mm) but no larger than 30 by 42 inches (750 by 1067 mm).
 3. Number of Copies: Submit electronic files for each submittal and produce hard copies as required by the Architect.
 4. Refer to individual Sections for Coordination Drawing requirements for Work in those Sections.

1.6 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is

SECTION 01 31 00 - PROJECT MANAGEMENT AND
COORDINATION

- required, of date and time of each meeting. Notify Owner, Construction Manager and Architect of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, Construction Manager and Architect, within three (3) days of the meeting.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner but no later than fifteen (15) days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Construction Manager, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for RFIs.
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.
 - k. LEED requirements.
 - l. Preparation of Record Documents.
 - m. Use of the premises and existing buildings.
 - n. Work restrictions.
 - o. Owner's occupancy requirements.
 - p. Responsibility for temporary facilities and controls.
 - q. Construction waste management and recycling.
 - r. Parking availability.
 - s. Office, work, and storage areas.
 - t. Equipment deliveries and priorities.
 - u. First aid.
 - v. Security.
 - w. Progress cleaning.
 - x. Working hours.
 3. Notes: Construction Manager or Architect will record and distribute meeting notes.
- C. Progress Meetings: Construction Manager will conduct progress meetings at **weekly** intervals. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Owner, Construction Manager and Architect, each subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. General Contractor's designated Project Manager and Superintendent must attend all Progress Meetings in addition to all other project related meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

2. Agenda: Review and correct or approve notes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) Status of RFIs.
 - 16) Status of proposal requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
3. Notes: Construction Manager will conduct the meeting will record and distribute meeting notes to Owner, Architect and Contractor.
4. Reporting: Distribute notes of the meeting to each party present and to parties who should have been present.
 - a. Schedule Updating: Contractor shall update the Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized.

1.7 REQUESTS FOR INTERPRETATION (RFIs)

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI via the web-based project management software.
 1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
 2. RFIs shall be submitted to the Construction Manager in the specified format.
 3. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
 1. Project name.

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COORDINATION

2. Project number
 3. Date.
 4. Name of Contractor.
 5. Name of Architect and Construction Manager.
 6. RFI number, numbered sequentially.
 7. Specification Section number and title and related paragraphs, as appropriate.
 8. Drawing number and detail references, as appropriate.
 9. Field dimensions and conditions, as appropriate.
 10. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 11. Contractor's signature.
 12. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
- C. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow fourteen (14) working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Architect's actions on submittals.
 - f. Incomplete RFIs or RFIs with numerous errors.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
 3. Architect's action on RFIs that may result in a change to the Contract Time, or the Contract Sum may be eligible for Contractor to submit Change Proposal according to **procedures defined in the General Condition, Section 2. Contract Modifications.**
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within ten (10) days of receipt of the RFI response.
- D. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven (7) days if Contractor disagrees with response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log (CSI Log Form 13.2B) weekly. Include the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were dropped and not submitted.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 2 - PRODUCTS (Not Used) PART 3 - EXECUTION (Not Used)

-END OF SECTION-

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PART 1 - GENERAL

1.1 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions;
- B. Special Conditions;
- C. Summary of Work; and
- D. Submittals.

1.2 SECTION INCLUDES

- A. Scheduling of Work under this Contract shall be performed by Contractor in accordance with requirements of this Section.
 - 1. Development of Project Schedule (including Initial, Baseline, and Progress Schedule). Contractor shall employ computerized Critical Path Method ("CPM") scheduling ("CPM Schedule").
 - 2. Work Plan Cash Flow of the schedule shall be:
 - (a) Related to the Project Schedule of Values as approved by the Owner.
 - (b) Represent the intended work plan cash-flow.
 - (c) The basis of Earned Value assessment.
 - 3. Submit schedules and reports as specified in the General Conditions.
 - 4. Scheduling best practices identifying technical issues and project float.
- B. Time Impacts including directed scope additions, unexpected critical impacts, inclement weather, and defined liability assignments.
- C. Earned Value Management including schedule health assessment, forecast completion estimation, and schedule efficiency performance indicators.
- D. Monthly Schedule Reporting.

1.3 QUALIFICATIONS

- A. Contractor shall employ experienced scheduling personnel qualified to use the latest version of Primavera P6 Professional or approved equivalent software. Experience level required is set forth below. Contractor may employ such personnel directly or may employ a consultant for this purpose.
 - 1. Project Scheduler qualifications shall be submitted in writing at the Notice of Intent

to Award.

2. The written statement shall identify the individual who will perform CPM scheduling and experience shall be verified by description of construction projects on which individual has successfully applied computerized CPM.
 3. Required level of experience shall include at least two (2) projects of similar nature and scope, with a minimum of five (5) years of verifiable experience. The written statement shall provide contact persons for referenced projects with current telephone and address information.
 4. Project Scheduler with capability of producing schedule reports and diagrams within 24 hours of Owner's request.
- B. County reserves the right to approve or reject Contractor's scheduler or consultant at any time. County reserves the right to refuse replacing of Contractor's scheduler or consultant, if County believes replacement will negatively affect the scheduling of Work under this Contract.

1.4 GENERAL

- A. Project Schedule shall be based on and incorporate milestone and completion dates specified in Contract Documents.
- B. Overall time of completion and time of completion for each milestone shown on Project Schedule shall adhere to times in the Contract, unless an earlier (advanced) time of completion is requested by Contractor and agreed to by County. Any such agreement shall be formalized by a Change Order.
1. County is not required to accept an early completion schedule, i.e., one that shows an earlier completion date than the Contract Time.
 2. Contractor shall not be entitled to extra compensation in event agreement is reached on an earlier completion schedule and Contractor completes its Work, for whatever reason, beyond completion date shown in its early completion schedule but within the Contract Time.
 3. A schedule showing the work completed in less than the Contract Time, and that has been accepted by County, shall be considered to have Project Float. The Project Float is the time between the scheduled completion of the work and the Completion Date. Project Float is a resource available to both County and the Contractor.
- C. Ownership Project Float: Neither the County nor Contractor owns Project Float. The Project owns the Project Float. As such, liability for delay of the Completion Date rests with the party whose actions, last in time, actually cause delay to the Completion Date.
1. Float defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule. Float is not for the exclusive use of or benefit of either the Owner or the Contractor, but its use shall be determined solely by the Owner.

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2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 3. For example, if Party A uses some, but not all of the Project Float and Party B later uses remainder of the Project Float as well as additional time beyond the Project Float, Party B shall be liable for the time that represents a delay to the Completion Date.
 4. Party A would not be responsible for the time since it did not consume the entire Project Float and additional Project Float remained; therefore, the Completion Date was unaffected by Party A.
- D. The Project Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. The Contractor is responsible for developing the based on the critical path method (CPM), logical activity duration derivation, using standard scheduling best practices, and logical sequence of execution.
- E. Failure of the Project Schedule to include any element of the Work, or if there are any inaccuracies, will not relieve Contractor from the responsibility of accomplishing the Work in accordance with the Contract. County's acceptance of schedule shall be for its use in monitoring and evaluating job progress, payment requests, and time extension requests and shall not, in any manner, impose a duty of care upon County, or act to relieve Contractor of its responsibility for means and methods of construction.
- F. Recommended scheduling software is the latest version of Primavera P6 or an approved equivalent. Contractor shall transmit contract file to County on USB flash drive or project management system at times requested by County.
- G. Transmit each item under the form approved by County.
1. Identify Project with County Contract number and name of Contractor as well as the data date.
 2. Provide space for Contractor's approval stamp and County's review stamps.
 3. Submittals received from sources other than Contractor will be returned to the Contractor without County's review.

1.5 INITIAL SCHEDULE (90-day)

- A. At the Notice to Proceed, Contractor shall immediately commence development of Initial and Baseline Schedules to ensure compliance with Project Schedule submittal requirements.
- B. Within fourteen (14) calendar days of the Notice to Proceed and before request for first progress payment, the Contractor shall prepare and submit to the Owner an Initial Schedule conforming to, and containing, the milestones required by the Contract Documents.
- C. The Initial Schedule is the basis for the subsequent Baseline Schedule.
- D. Indicate detailed plan for the Work to be completed in first ninety (90) days of the Contract; details of planned mobilization of equipment; sequence of early operations;

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procurement of materials and equipment. Show Work beyond ninety (90) calendar days in summary form.

- E. Initial Schedule shall be time scaled.
- F. County and Contractor shall meet to review and discuss the Initial Schedule within seven (7) calendar days after it has been submitted to County.
 - 1. County's review and comment on the schedule shall be limited to Contract conformance (with sequencing, coordination, and milestone requirements).
 - 2. Contractor shall make corrections to schedule necessary to comply with Contract requirements and shall adjust schedule to incorporate any missing information requested by County. Contractor shall resubmit Initial Schedule if requested by County.
 - 3. Prescheduling Conference: Conduct conference at Project site to review methods and procedures related to the Preliminary Construction Schedule and Contractor's Construction Schedule, including, but not limited to, the following:
 - (a) Review software limitations and content and format for reports.
 - (b) Verify availability of qualified personnel needed to develop and update schedule.
 - (c) Discuss constraints, including phasing, work stages, area separations, interim milestones, and partial Owner occupancy.
 - (d) Review delivery dates for Owner-furnished products.
 - (e) Review schedule for work of Owner's separate contracts.
 - (f) Review time required for review of submittals and resubmittals.
 - (g) Review requirements for tests and inspections by independent testing and inspecting agencies.
 - (h) Review time required for completion and startup procedures.
 - (i) Review time required for Project closeout and Owner startup procedures, including commissioning activities.
 - (j) Review and finalize list of construction activities to be included in schedule.
 - (k) Review submittal requirements and procedures.
 - (l) Review procedures for updating schedule.

1.6 BASELINE SCHEDULE

- A. Contractor shall, within thirty (30) calendar days from the Notice to Proceed date, submit a

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detailed proposed Baseline Schedule presenting an orderly and realistic plan for completion of the Work in conformance with requirements as specified herein.

- B. The Baseline Schedule shall include or comply with following requirements:
1. No activity on schedule shall have duration longer than fifteen (15) workdays, with exception of submittal, approval, fabrication and procurement activities, unless otherwise approved by County.
 - (a) Activity durations shall be total number of actual workdays required to perform that activity.
 - (b) It is recommended activity durations are derived using one of the following best practices methods:
 - 1) Analogous
 - 2) Parametric
 - 3) PERT Method
 2. Constraints: Should be limited to 'start on or after' or 'finish on or before'.
 3. Phasing: Arrange list of activities on schedule by phase.
 4. Work under More Than One Contract: Include a separate activity for each contract.
 5. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 6. Products Ordered in Advance: Include a separate activity for each product. Delivery dates indicated stipulate the earliest possible delivery date.
 7. Owner-Furnished Products: Include a separate activity for each product. Delivery dates indicated stipulate the earliest possible delivery date.
 8. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - (a) Submittals.
 - (b) Purchases.
 - (c) Mockups.
 - (d) Fabrication.
 - (e) Sample testing.
 - (f) Deliveries.

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- (g) Installation.
 - (h) Tests and inspections.
 - (i) Adjusting.
 - (j) Curing.
 - (k) Building flush-out.
 - (l) Startup and placement into final use and operation.
 - (m) Commissioning.
9. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
- (a) Structural completion.
 - (b) Permanent space enclosure.
 - (c) Completion of mechanical installation.
 - (d) Completion of electrical installation.
 - (e) Substantial Completion.
10. County furnished materials and equipment, if any, identified as separate activities.
11. Activities for maintaining Project Record Documents.
12. Dependencies (or relationships) between activities.
- (a) Relationships shall consist of finish-start, finish-finish, and start-start only.
 - (b) Open-end activities should be seen on the Notice to Proceed (NTP) and Final Completion milestones only.
 - (c) Finish-start relationships with positive lag are not allowed.
 - (d) Negative lag is not allowed.
13. Processing/approval of submittals and shop drawings for all material and equipment required per the Contract. Activities that are dependent on submittal acceptance or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates.
- (a) Include time for submittals, re-submittals and reviews by County. Coordinate with accepted schedule for submission of Shop

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Drawings, samples, and other submittals.

- (b) Contractor shall be responsible for all impacts resulting from re-submittal of Shop Drawings and submittals.
14. Procurement of major equipment, through receipt and inspection at jobsite, identified as separate activity.
- (a) Include time for fabrication and delivery of manufactured products for the Work.
 - (b) Show dependencies between procurement and construction.
15. Activity description: what Work is to be accomplished avoiding duplicates.
16. The Work Plan Cash Flow will provide the cash flow used as the basis for subsequent earned value metric calculation. The total cost of performing each activity shall be total of labor, material, and equipment, as well as overhead and profit of Contractor. Sum of cost for all activities shall equal total Contract value and be correlated with the Schedule of Values.
- (a) The intent is to identify the monthly cash-flow for the duration of the project.
17. Responsibility code for each activity corresponding to Contractor or Subcontractor responsible for performing the Work.
18. Identify the activities which constitute the controlling operations or critical path. No more than twenty-five (25%) of the activities shall be critical or near critical. Near critical is defined as float in the range of one (1) to (10) days.
19. Twenty (20) working days for developing punch list(s), completion of punch-list items, and final clean-up for the Work or any designated portion thereof. No other activities shall be scheduled during this period.
20. Interface with, and coordinate, the work of other contractors, County, and agencies such as, but not limited to, utility companies.
21. Show detailed Subcontractor Work activities. In addition, furnish copies of Subcontractor schedules upon which the Project Schedule was built.
- (a) Also furnish for each Subcontractor, as determined by County, submitted on Subcontractor letterhead, a statement certifying that Subcontractor concurs with Contractor's Baseline Schedule and that Subcontractor's related schedules have been incorporated, including activity duration, cost and resource loading.
 - (b) Subcontractor schedules shall be independently derived and not a copy of Contractor's schedule.
 - (c) In addition to Contractor's schedule, obtain from electrical, mechanical, and plumbing Subcontractors, and other Subcontractors as required by County, productivity calculations

common to their trades, such as units per person day, feet of pipe per day per person, feet of wiring per day per person, and similar information.

- (d) Furnish schedule for Contractor/Subcontractor schedule meetings which shall be held prior to submission of Baseline Schedule to County. County shall be permitted to attend scheduling meetings as an observer.

- 22. Activity durations shall be in Workdays.
- 23. Submit with the schedule a list of anticipated non-Workdays, such as weekends and holidays. The Project Schedule shall exclude in its Workday calendar all non-Workdays on which Contractor anticipates critical Work will not be performed.
- 24. The anticipated days lost due to weather shall be included as a single Adverse Weather Allowance activity with a duration defined in table below prorated for the length of the project and based on NOAA historical data. The duration shall be in working days and be the predecessor to the Substantial Completion milestone on the critical path. Adverse weather day impacts will be managed as prescribed in section 1.12F.

| Month | Adverse Weather Allowance(days) |
|-----------|---------------------------------|
| January | 6 |
| February | 7 |
| March | 6 |
| April | 4 |
| May | 1 |
| June | 0 |
| July | 0 |
| August | 0 |
| September | 0 |
| October | 2 |
| November | 4 |
| December | 8 |

- C. Baseline Schedule Review Meeting: Contractor shall, within fourteen (14) calendar days from the Notice to Proceed date, meet with County to review the Baseline Schedule submittal.
 - 1. Contractor shall have its Project Manager, Project Superintendent, Project Scheduler, and key Subcontractor representatives, as required by County, in attendance. The meeting will take place over a continuous one (1) day period.
 - 2. County’s review will be limited to submittal’s conformance to Contract

requirements including, but not limited to, coordination requirements. However, review may also include:

- (a) Clarifications of Contract Requirements.
 - (b) Directions to include activities and information missing from submittal.
 - (c) Requests to Contractor to clarify its schedule.
3. Within seven (7) calendar days of the Schedule Review Meeting, Contractor shall respond in writing to all questions and comments expressed by County at the Meeting.

1.7 BASELINE SCHEDULE REVISIONS

A. Adjustments to Baseline Schedule: Contractor shall have adjusted the Baseline Schedule submittal to address all review comments from Baseline Schedule review meeting and resubmit network diagrams and reports for County's review.

1. County, within fourteen (14) calendar days from date that Contractor submitted the revised schedule, will either:
 - (a) Accept schedule as submitted, or
 - (b) Advise Contractor in writing to review any part or parts of schedule which either do not meet Contract requirements or are unsatisfactory for County to monitor Project's progress, resources, and status or evaluate monthly payment request by Contractor.
2. When schedule is accepted, it shall be considered the "Baseline Schedule" which will then be immediately updated to reflect the current status of the work.
3. County reserves right to require Contractor to adjust, add to, or clarify any portion of schedule which may later be discovered to be insufficient for monitoring of Work or approval of partial payment requests. No additional compensation will be provided for such adjustments, additions, or clarifications.

B. Acceptance of Contractor's schedule by County will be based solely upon schedule's compliance with Contract requirements.

1. By way of Contractor assigning activity durations and proposing sequence of Work, Contractor agrees to utilize sufficient and necessary management and other resources to perform work in accordance with the schedule.
2. Upon submittal of schedule update, updated schedule shall be considered "current" Project Schedule.
3. Submission of Contractor's schedule to County shall not relieve Contractor of total responsibility for scheduling, sequencing, and pursuing Work to comply with requirements of Contract Documents, including adverse effects such as delays resulting from ill-timed Work.

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- C. Submittal of Baseline Schedule, and subsequent schedule updates, shall be understood to be Contractor's representation that the Schedule meets requirements of Contract Documents, and that Work shall be executed in sequence indicated on the schedule.
- D. Contractor shall distribute Baseline Schedule to Subcontractors for review and written acceptance, which shall be noted on Subcontractors' letterheads to Contractor and transmitted to County for the record.

1.8 PROGRESS SCHEDULE (MONTHLY SCHEDULE UPDATE)

- A. Following acceptance of Contractor's Baseline Schedule, Contractor shall monitor progress of Work and adjust schedule on at least a monthly basis to reflect actual progress and any anticipated changes to planned activities.
 - 1. Each schedule update submitted shall be complete, including all information requested for the Baseline Schedule submittal.
 - 2. Each update shall continue to show all work activities including those already completed. These completed activities shall accurately reflect "as built" information by indicating when activities were actually started and completed. The "as-built" activities shall be reviewed and accepted prior to the update schedule review.
- B. A meeting will be held on approximately the twenty-fifth (25th) of each month to review the schedule update submittal and progress payment application.
 - 1. At this meeting, at a minimum, the following items will be reviewed: Percent (%) complete of each activity; Time Impact Evaluations for Change Orders and Time Extension Request; actual and anticipated activity sequence changes; actual and anticipated duration changes; and actual and anticipated Contractor delays.
 - 2. These meetings are considered a critical component of overall monthly schedule update submittal and Contractor shall have appropriate personnel attend. At a minimum, these meetings shall be attended by Contractor's General Superintendent and Scheduler.
 - 3. Contractor shall plan on the meeting taking no less than four (4) hours.
- C. Within five (5) working days after monthly schedule update meeting, Contractor shall submit the Progress Schedule.
- D. Within five (5) workdays of receipt of above noted revised submittals, County will either accept or reject Progress Schedule.
- E. Neither updating, changing or revising of any report, curve, schedule, or narrative submitted to County by Contractor under this Contract, nor County's review or acceptance of any such report, curve, schedule or narrative shall have the effect of amending or modifying in any way the Completion Date or milestone dates or of modifying or limiting in any way Contractor's obligations

1.9 PROGRESS SCHEDULE REVIEW AND REVISIONS

- A. County, within seven (7) days from date that Contractor submitted the schedule update, will either:
 - 1. Accept schedule as submitted, or
 - 2. Advise Contractor in writing to review any part or parts of schedule which either do not meet Contract requirements or are unsatisfactory for County to monitor Project's progress, resources, and status or evaluate monthly payment request by Contractor.
- B. Updating the Project Schedule to reflect actual progress shall not be considered revisions to the Schedule.
- C. To reflect revisions to the Schedule, the Contractor shall provide County with a written narrative with a full description and reasons for each Work activity revised. For revisions affecting the sequence of work, the Contractor shall provide a schedule diagram which compares the original sequence to the revised sequence of work. The Contractor shall provide the written narrative and schedule diagram for revisions two (2) working days in advance of the monthly schedule update meeting.
- D. Schedule revisions shall not be incorporated into any schedule update until the revisions have been reviewed by County. County may request further information and justification for schedule revisions and Contractor shall, within three (3) working days, provide County with a complete written narrative response to County's request.
- E. If the Contractor's revision is still not accepted by County, and the Contractor disagrees with County's position, the Contractor has seven (7) calendar days from receipt of County's letter rejecting the revision to provide a written narrative providing full justification and explanation for the revision. The Contractor's failure to respond in writing within seven (7) calendar days of County's written rejection of a schedule revision shall be contractually interpreted as acceptance of County's position, and the Contractor waives its rights to subsequently dispute or file a claim regarding County's position.
- F. At County's discretion, the Contractor can be required to provide Subcontractor certifications of performance regarding proposed schedule revisions affecting said Subcontractors.

1.10 RECOVERY SCHEDULE

- A. A Recovery Schedule will be submitted when a delay of fourteen (14) calendar days or more to the Final Completion milestone is identified.
- B. The Recovery Schedule is herein defined as the Contractor plan to reconcile current delay days to complete the project on the contract completion date.

1.11 COMPLETION SCHEDULE

- A. If schedule performance, estimated through earned value analysis, is forecasting a trending delay of greater than 21 days over 3 or more months, the Contractor and PMCM will meet to discuss remediation through a Completion Schedule.

- B. The Completion Schedule is herein defined as the Contractor plan to establish a project completion date when the current Final Completion date is deemed no longer achievable. When this happens, the Contractor will submit a schedule to complete that demonstrates a new probable project completion (for example, using cash flow analysis).

1.12 PROJECT DELAYS

A. Time Allowances

1. Time is of the essence. Contract Time may only be changed by Change Order, and all-time limits stated in the Contract Documents are to mean that time is of the essence.

B. Excusable Delay and Inexcusable Delay Defined

1. In the event the Contractor requests an extension of Contract Time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing Claims and Disputes (Division F, Section 33 and 34). When requesting time, requests must be submitted with full justification and documentation.

If the Contractor fails to submit justification, it waives its right to a time extension at a later date. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work. Any Claim for delay must include the following information as support, without limitation.

1. Excusable Delay. Subject to the provisions on Notice of Delay below, Contract Time may be adjusted in an amount equal to the time lost due to:
 - (a) Changes in the Work ordered by County ("Changes").
 - (b) Acts or neglect by County, Architect/Engineer, any County Representative, utility owners or other contractors performing other work, not permitted or provided for in the Contract Documents, provided that Contractor has performed its responsibilities under the Contract Documents (including but not limited to pre-bid investigations) ("Acts or Neglect"); or
 - (c) Fires, floods, epidemics, **pandemics**, quarantines, abnormal weather conditions beyond the parameters otherwise set forth in this Article, earthquakes, civil or labor disturbances, **acts of war or terrorism**, or acts of God (together, "force majeure events"), provided damages resulting therefrom are not the result of Contractor's failure to protect the Work as required by Contract Documents ("Force Majeure").
 - (d) Work delayed which is out of the control of the Contractor may be an Excusable Delay.
2. Inexcusable Delay. Contract Time shall not be extended for any period of time where Contractor (and/or any Subcontractor) is delayed or prevented from completing any part of the Work due to a cause that is within Contractor's risk or

responsibility under the Contract Documents. Delays attributable to or within the control of a Subcontractor, or its subcontractors, or supplier, are deemed delays within the control of Contractor.

- (a) Work delayed which is in the control of the Contractor is an Inexcusable Delay.

- 3. Float. Float shall be treated as a Project resource. Contractor shall not be entitled to a time extension for impacts that consume float, but do not impact the critical path.

C. Notice of Delay

- 1. Within seven (7) calendar days of the beginning of any delay (excepting adverse weather delays), Contractor shall notify County in writing, by submitting a Notice of Delay that shall describe the anticipated delays resulting from the delay event in question. If Contractor requests an extension of time, Contractor shall submit a Time Impact Evaluation (TIE) within 10 calendar days of the Notice of Delay. County will determine all claims and adjustments in the Contract Time. No claim for an adjustment in the Contract Time will be valid and such claim will be waived if not submitted in accordance with the requirements of this subparagraph. In cases of substantial compliance with the seven- day notice requirement here (but not to exceed twenty-one calendar days from the beginning of the delay event), County may in its sole discretion recognize a claim for delay accompanied with the proper TIE, provided Contractor also shows good faith and a manifest lack of prejudice to County from the late notice. Contractor will follow the guidelines set forth in section 1.13 and include description of activities impacted by the delay, including the activity ID.

D. Compensable Time Extensions

- 1. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Sum in addition to Contract Time only when all of the following conditions are met:
 - (a) The Owner is the sole cause of the delay to the current critical path;
 - (b) The delay is unreasonable under the circumstances involved;
 - (c) The delay was not within the contemplation of Owner and Contractor; and
 - (d) Contractor complies with the claims procedure of the Contract Documents.
 - (e) Excusable delay caused solely by Changes in the Work ordered by County, as provided above, and/or
 - (f) Excusable delay caused solely by Acts or Neglect by County or other person, as provided above.

E. Non-Compensable Time Extensions

1. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Time only, without adjustment in Contract Sum, for
 - (a) Periods of excusable delay caused solely by weather (beyond the adverse weather day allowance shown herein) or Force Majeure events as provided above in this Article, or
 - (b) Periods of concurrent delay, where delay results from two or more causes, one of which is compensable (resulting from Changes or Acts or Neglect as set forth above in this Article), and the other of which is non-compensable or inexcusable, such as: acts or neglect of Contractor, Subcontractors or others for whom Contractor is responsible; other acts, omissions and conditions which would not entitle Contractor to adjustment in Contract Time; adverse weather; and/or actions of Force Majeure as provided above in this Article.

F. Adverse Weather

1. The Contract Adverse Weather Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located. (1.06B.24)
2. Contractor shall provide proof that adverse weather actually caused delays to work on the critical path. The proof shall contain the activity ID and name of impacted critical activity. Contractor shall give written notice of intent to claim an adverse weather day within one day of the adverse weather day occurring (1.06B.24).
3. In order to qualify as an adverse weather delay with respect to the foregoing parameters: daily rainfall must exceed 0.1 inch at the NOAA station located closest to the Project site, as measured and reported by NOAA. Notwithstanding these allowances, Contractor shall at all times employ all available mitigation measures to enable Work to continue, Contractor shall take reasonable steps to mitigate potential weather delays, such as dewatering the Site, lime treatment, and covering Work and material that could be affected adversely by weather. Failure to do so shall be cause for County to not grant a time extension due to adverse weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.
4. Contractor shall include the foregoing precipitation parameters as a monthly activity in its progress schedule. As Work on the critical path is affected by precipitation, Contractor shall notify County and request that the days be moved to the affected activities. Any adverse weather days remaining shall be considered Project float available to either County or Contractor.
5. Adverse weather delay for precipitation shall be recognized for the actual period of time Contractor proves it was delayed by precipitation
6. Exceeding the specified parameters. For example, and not by way of limitation, if precipitation exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be

recognized; and conversely, if Contractor proves to County's satisfaction that precipitation exceeding the specified parameters causes delay to Contractor for a period longer than the number of precipitation days incurred (e.g., if it rains or snows during grading work), then Contractor shall be entitled to a time extension equal to the actual period of such delay. Note: Time extension is mitigated in the weather day allowance activity (see section 1.06B24),

7. During unfavorable weather, wet ground, or other unsuitable construction conditions, Contractor shall employ best practices to protect the Work, manage the construction site and rainwater during inclement weather. Persons performing the Work shall examine surfaces to receive their Work and shall report in writing to Contractor, with copy to County representative and the Architect conditions detrimental to the Work. Failure to examine and report discrepancies makes the Contractor responsible, at no increase in Contract Sum, for correction, County may require. Commencement of Work constitutes acceptance of surface.

G. Liquidated Damages

1. Time is of the essence. Execution of Contract Documents by Contractor shall constitute its acknowledgement that County will actually sustain damages in the form of Contract administration expenses (such as Project management and consultant expenses) in the amount fixed in the Contract Documents for each and every Day during which completion of Work required is delayed beyond expiration of time fixed for completion plus extensions of time allowed pursuant to provisions hereof.
2. Contractor and County agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of such actual damages incurred by County because of a delay in completion of all or any part of the Work. Contractor and County agree that specified measures of liquidated damages shall be presumed to be the amount of such damages actually sustained by County, and that because of the nature of the Project, it would be impracticable or extremely difficult to fix the actual damages.
3. Liquidated damages for delay shall cover administrative, overhead, interest on bonds, and general loss of public use damages suffered by County as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from County (for example, delay claims of other contractors, subcontractors, tenants, or other third-parties), and defense costs thereof. County may deduct from any money due or to become due to Contractor subsequent to time for completion of entire Work and extensions of time allowed pursuant to provisions hereof, a sum representing then-accrued liquidated damages.
4. Contractor shall not be charged for liquidated damages because of any delays in completion of Work on the critical path which are not the fault or negligence of Contractor or its Subcontractors, including acts of God as defined in Public Contract Code Section 7105, acts of enemy, epidemics, and quarantine restrictions. Contractor shall, within ten (10) days of beginning of any delay, notify Owner in writing of causes of delay including documentation and facts explaining the delay. Owner shall review the facts and extent of any delay and

shall grant extension(s) of time for completing Work when, in its judgment, the findings of fact justify an extension. Extension(s) of time shall apply only to that portion of Work affected by delay and shall not apply to other portions of Work not so affected. An extension of time may only be granted if Contractor has timely submitted the notice and supporting documentation required by all relating Contract Documents as required herein.

1.13 TIME IMPACT EVALUATION (“TIE”) FOR CHANGE ORDERS, AND OTHER DELAYS

A. Owner Directed Added Work

1. When Contractor is directed to proceed with changed Work, the Contractor shall prepare and submit within seven (7) calendar days from the Notice to Proceed a TIE which includes both a written narrative and a delay fragnet integrated into the contemporaneous schedule depicting how the changed Work affects other schedule activities. The schedule diagram shall show how the Contractor proposes to incorporate the changed Work in the schedule and how it impacts the current schedule-update critical path. The Contractor is also responsible for requesting time extensions based on the TIE’s impact on the critical path. The diagram must be tied to the main sequence of schedule activities to enable County to evaluate the impact of changed Work to the scheduled critical path.
2. Contractor shall be responsible for all costs associated with the preparation of TIEs, and the process of incorporating them into the current schedule update.
3. Once agreement has been reached on a TIE, the Contract Time will be adjusted accordingly (via Change Order Request and Change Order). If agreement is not reached on a TIE, the Contract Time may be extended in an amount County allows, and the Contractor may submit a claim for additional time claimed by contractor.

B. Contract Added Work Claim

1. If the schedule final completion date is extended due to added work scope, the Contractor is required to provide a time and cost impact within fourteen (14) calendar days and prior to proceeding with added work, unless approved by Owner.
2. If the Contractor believes critical work has been delayed due to circumstances beyond their control, a TIE shall be submitted as described above.
3. The TIE will be reviewed with fourteen (14) calendar days and assessed as excusable / compensable, excusable / non-compensable, or non- excusable / non-compensable.
4. Delay Fragnet
 - (a) The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.
 - (b) Specific logical ties to the Contract Schedule for the proposed

changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay. (A portion of any delay of seven (7) days or more must be provided.)

- (c) A revised Construction Schedule must be submitted showing the delay and impact on the Final Completion date.

1.14 TIME EXTENSIONS

- A. The Contractor is responsible for requesting time extensions for time impacts that, in the opinion of the Contractor, impact the critical path of the current Progress Schedule update. Notice of time impacts shall be given in accord with the General Conditions.
- B. Where an event for which County is responsible impacts the projected Final Completion date, the Contractor shall provide a written mitigation plan, including a schedule diagram, which explains how (e.g., increase crew size, overtime, etc.) the impact can be mitigated. The Contractor shall also include a detailed cost breakdown of the labor, equipment, and material the Contractor would expend to mitigate County-caused time impact. The Contractor shall submit its mitigation plan to County within fourteen (14) calendar days from the date of discovery of the impact. The Contractor is responsible for the cost to prepare the mitigation plan.
- C. Failure to request time, provide A, or provide the required mitigation plan will result in Contractor waiving its right to a time extension and cost to mitigate the delay.
- D. No time will be granted under this Contract for cumulative effect of changes.
- E. County will not be obligated to consider any time extension request unless the Contractor complies with the requirements of Contract Documents.
- F. Failure of the Contractor to perform in accordance with the current schedule update shall not be excused by submittal of time extension requests.
- G. If the Contractor does not submit a TIE within the required seven (7) calendar days for any issue, it is mutually agreed that the Contractor does not require a time extension for said issue.
- H. To avoid possible delay risks, the Contractor is aware that governmental agencies, including, without limitation, the County, gas companies, electrical utility companies, water districts, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Accordingly, Contractor shall include in its schedule and bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Thus, Contractor is not entitled to make a claim for damages or delays arising from the required review of Contractor's drawings by third parties.

1.15 SCHEDULE REPORTS

- A. Submit the following reports with the Baseline Schedule and each monthly update.
- B. Required Reports:

SECTION 01 32 16 - CONSTRUCTION PROGRESS DOCUMENTATION

1. Two activity listing reports: one sorted by activity number and one by total Project Float. These reports shall also include each activity's early/late and actual start and finish dates, original and remaining duration, Project Float, responsibility code, and the logic relationship of activities.
2. Report showing the longest critical path.
3. Work Plan Cash Flow Report including the following: percentage of Work accomplished, earned value-to date, previous payments, and amount earned for current update period.
4. Schedule plots presenting time-scaled network diagram showing activities and their relationships with the controlling operations or critical path clearly highlighted.
5. Upon request, the Contractor may be required to submit a Planned versus Actual labor histogram calculated by early start.
6. 3-week look-ahead schedule. The 3-week look ahead shall be derived from the update schedule with referenced correlating activities.
7. Actual dates achieved on activities for the past period. This report should be submitted to the County prior to the overall update submittal for field verification.
8. Schedule update narrative describing items such as current critical path, issues, schedule revisions, and other.
9. All reports noted above shall be clearly dated (including data date) and titled.

C. Other Reports:

In addition to above reports, County may request, from month to month, any of the following reports.

1. Activities by early start.
2. Activities by late start.
3. Activities grouped by Subcontractors or selected trades.

D. Furnish County with report files on media as described previously in this document.

1.16 PROGRESS SCHEDULE NARRATIVE

- A. In addition to report submittal requirements for Project Schedule identified in the previous Section, Contractor shall provide a monthly project status report (i.e., written narrative report) to be submitted in conjunction with each schedule as specified herein. Status reporting shall be in form specified below.
- B. Contractor shall prepare monthly written narrative reports of status of Project for submission to County. Written status reports shall include:

SECTION 01 32 16 - CONSTRUCTION PROGRESS DOCUMENTATION

1. Status of major Project components (percent (%) complete, amount of time ahead or behind schedule) and an explanation of how Project will be brought back on schedule if delays have occurred.
2. Progress made on critical activities indicated on Project Schedule.
3. Explanations for any lack of work on critical path activities planned to be performed during last month.
4. Explanations for any schedule changes, including changes to logic or to activity durations.
5. List of critical activities scheduled to be performed next month.
6. Status of major material and equipment procurement.
7. Any delays encountered during reporting period.
8. Contractor may include any other information pertinent to status of Project. Contractor shall include additional status information requested by County at no additional cost.
9. Status reports, and the information contained therein, shall not be construed as claims, notice of claims, notice of delay, or requests for changes or compensation.

1.17 LOOKAHEAD SCHEDULE REPORT

By the end of the business day on the day prior to the Weekly Progress Meeting, the Contractor shall provide a time-scaled three (3) week Look-ahead Schedule that is based on, and correlated by activity number to, the current accepted schedule (i.e., Initial, Baseline or Progress Schedule). Look-ahead Schedule shall reflect ALL schedule activities that were planned to take place during this period based on the current schedule. Schedule shall include at least the following: area/building, activity ID, activity description, responsible contractor/subcontractor, as well as planned start date, duration and completion date. Activities noted to be on the critical path per the current schedule shall be highlighted accordingly. Contractor may include multiple activities that relate to a single activity ID if this provides clarity to sequencing, etc.

1.18 DAILY CONSTRUCTION REPORTS

On a daily basis (prior to the end-of-business on the day of the work being reported), Contractor shall submit via the Project Management Software a Daily Construction Report to County for each workday, including weekends and holidays. Contractor shall develop the Daily Construction Reports on a computer-generated database capable of sorting daily Work, manpower, and man-hours by Contractor, Subcontractor, area, sub-area, and Change Order Work. Obtain County's written approval of Daily Construction Report data base format prior to implementation. Include in report:

- A. Project name and Project number.
- B. Contractor's name and address.

SECTION 01 32 16 - CONSTRUCTION PROGRESS DOCUMENTATION

- C. Weather, temperature, and any unusual site conditions. Contractor shall note on this report any Notices issued that day relating to these conditions.
- D. Brief description and location of the day's scheduled activities and any special problems and accidents, including Work of Subcontractors. Descriptions shall be referenced to scheduled activities and include all related schedule activity IDs (as well as CORs, CDs, etc).
- E. Worker quantities for its own Work force and for Subcontractors of any tier.
- F. Equipment, other than hand tools, utilized by Contractor and Subcontractors.
- G. Material deliveries.
- H. High and low temperatures and general weather conditions.
- I. Accidents.
- J. Meetings and significant decisions.
- K. Unusual events (refer to special reports).
- L. Stoppages, delays, shortages, and losses.
- M. Meter readings and similar recordings.
- N. Emergency procedures.
- O. Orders and requests of authorities having jurisdiction.
- P. Change Orders received and implemented.
- Q. Construction Change Directives received and implemented.
- R. Services connected and disconnected.
- S. Equipment or system tests and startups.
- T. Partial Completions and occupancies.
- U. Updates to any and all Activity IDs projected to have activity based on the current accepted Project Schedule.

PART 2 -PRODUCTS – Not used

PART 3 -EXECUTION - Not used

- END OF SECTION –

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SECTION 01 32 19 - SUBMITTAL SCHEDULES / DAILY
REPORTS / FIELD REPORTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Submittals Schedule.
 - 2. Daily construction reports.
 - 3. Field condition reports.
- B. See Section 01 29 00 "Payment Procedures" for submitting the Schedule of Values.
- C. See Section 01 32 33 "Photographic Documentation" for submitting construction photographs.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Fagnets: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- C. Major Area: A story of construction, a separate building, or a similar significant construction element.

1.3 SUBMITTALS

- A. Submittals Schedule: Submit via the web-based project management software. Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor.
 - 5. Description of the Work covered.
 - 6. Scheduled date for Architect's final release or approval.
- B. Daily Construction Reports: Submit PDF file via the web-based project management software prior to close-of-business on the day covered by the report.

SECTION 01 32 19 - SUBMITTAL SCHEDULES / DAILY
REPORTS / FIELD REPORTS

- C. Field Condition Reports: Submit PDF file via the web-based project management software at time of discovery of differing conditions.

1.4 COORDINATION

- A. Coordinate preparation and processing of reports with performance of construction activities and with scheduling and reporting of separate contractors.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, re-submittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site and quantities relating to labor force.
 - 2. Equipment at Project site.
 - 3. Material deliveries.
 - 4. High and low temperatures and general weather conditions.
 - 5. Accidents.
 - 6. Stoppages, delays, shortages, and losses.
 - 7. Meter readings and similar recordings.
 - 8. Orders and requests of authorities having jurisdiction.
 - 9. Services connected and disconnected.
 - 10. Equipment or system tests and startups.
 - 11. Progress on any schedule activity, including all related activity IDs.
- B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a request for interpretation [**on CSI Form 13.2A**]. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION – (Not Used)

- END OF SECTION-

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SECTION 01 32 33 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1. 1 SUMMARY

- A. This Section describes the requirements for furnishing photographs depicting work progress.

1. 2 DESCRIPTION

- A. Furnish photographs of the site construction throughout the progress of the Work.
- B. Take photographs on cutoff date for each Application for Payment.
- C. In addition, take photographs at beginning and completion of the following elements:
 - 1. Demolition of Elevator Equipment
 - 2. New Machine
 - 3. New Ropes
 - 4. New Governor
 - 5. New Controller
 - 6. New Sheaves
 - 7. New Door Operator
 - 8. New Cartop Equipment
 - 9. New Guide Rollers
 - 10. New Car Doors and Equipment
 - 11. New Hoistway Doors and Equipment
 - 12. New Hall Fixtures
 - 13. New Buffers
 - 14. New Pit Equipment and Structure
 - 15. Car Operating Panel
 - 16. New Cab Interior
 - a. Walls
 - b. Ceiling
 - c. Flooring
 - 17. New Fire Detection System
 - 18. New Service Disconnects
 - 19. Substantial Completion

SECTION 01 32 33 - PHOTOGRAPHIC DOCUMENTATION

- 20. Final Completion
- 21. As requested by Owner.

1.3 PRINTS

- A. NOT USED

1.4 Electronic Files

- A. Upload photos to web-based project management software, indexed in folders by date and in chronological order.
- B. All photos to be in a JPEG format.
- C. Make photos available to Construction Manager at any time in electronic format.
- D. Provide a progress photo from 2 agreed upon vantages with each payment application.

1.5 TECHNIQUE

- A. Factual presentation, with correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.

1.6 VIEWS

- A. Take ten (10) photographs at each specified time, until Date of Substantial Completion. Consult with Construction Manager at each time for instructions on views required.

PART 2 – PRODUCTS (Not Used) PART 3

– EXECUTION (Not Used)

-END OF SECTION-

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SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections:
 - 1. Section 01 32 16 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 - 2. Section 01 78 23 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 3. Section 01 78 39 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 - 4. Section 01 79 00 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.
- C. See Section 01 77 00 "Closeout Procedures" for submitting warranties.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's and Construction Manager's responsive action.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements.

1.3 ACTION SUBMITTALS

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

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect and Construction Manager reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow time for submittal review, including time for re-submittals, as follows. Time for review shall commence on Architect's receipt of submittal. Contractor is to notify the Architect and Construction Manager when new materials for review have been posted to the

SECTION 01 33 00 - SUBMITTAL PROCEDURES

designated web-based project management software. Time will begin upon successful download of that information. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including re-submittals.

1. Initial Review: Allow fourteen (14) calendar days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Construction Manager will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow fourteen (14) calendar days for review of each re- submittal.
- C. Architect's Digital Data Files: Electronic copies of digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Contractor shall execute a data licensing agreement in the form of AIA Document C106, Digital Data Licensing Agreement as well as any further waivers required by the Architect.
- D. Submittals are to be submitted electronically via the web-based project management software.
1. The following submittals are to be submitted electronically:
 - a. Product Data
 - b. Shop Drawings
 - c. Certifications
 - d. Test Data
 - e. Schedules
 2. Samples shall not be submitted electronically but a transmittal should be to document delivery of such samples.
- E. Identification and Information: Place a permanent label or title block on each cover of submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6x8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect and Construction Manager.
 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of subcontractor.
 - g. Name of supplier.
 - h. Name of manufacturer.
 - i. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Re-submittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.

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- I. Location(s) where product is to be installed, as appropriate.
 - m. Other necessary identification.
 - F. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:
 - 1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
 - 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01- LNHS). Re-submittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A-LNHS).
 - 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect and Construction Manager.
 - 4. Include the following information on an inserted cover sheet:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of firm or entity that prepared submittal.
 - g. Name of subcontractor.
 - h. Name of supplier.
 - i. Name of manufacturer.
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Other necessary identification.
- G. Options: Identify options requiring selection by the Architect.
- H. Deviations: Highlight, encircle, and otherwise specifically identify deviations from the Contract Documents on submittals.
- I. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect or Construction Manager observes noncompliance with provisions in the Contract Documents, initial electronic submittal may serve as final submittal.
- J. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect and Construction Manager will return submittals, without review, received from sources other than Contractor.
 - 1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect and Construction Manager on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- K. Re-submittals: Make re-submittals in same form as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's and Construction Manager's action stamp.

SECTION 01 33 00 - SUBMITTAL PROCEDURES

- L. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- M. Use for Construction: Retain complete set of paper copies of submittals on Project site. Use only final submittals that are marked with approval notation from Architect's and Construction Manager's action stamp.

1.5 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. At Contractor's written request, copies of Architect's CAD files of select plans will be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions.
 1. Only major site/floor/ceiling/roof plans or building elevations/sections will be provided.
 2. Wall section, details, schedules will not be provided.
 3. Title blocks will be removed from the file.
 4. Notes and dimensions may be removed from the file.
 5. Compliance of the requests for consultant files is at the discretion of the consultant.
 6. The following disclaimer will be added to the file:

DISCLAIMER AND INDEMNIFICATION AGREEMENT FOR COMPUTER-BASED INFORMATION

The attached computer-based information for the **Hall of Justice #3 and #7 Modernization Project** are provided to the Contractor as a courtesy for their sole convenience. The User recognizes that computer-based information is easily changeable, that changes are difficult to detect and that use, or conversion of the information provided may introduce errors, inaccuracies or anomalies that the Architect and their consultants can neither predict nor control. The delivery of this electronic data does not constitute the delivery of the professional work product of the Architect shall not be responsible for any modifications made to the electronic files or any products derived from the electronic files which are not prepared by us. By accepting and utilizing this electronic data in lieu of the corresponding drawings and specifications prepared by the Architect, the User agrees that such data is an instrument of service of the Architect, who shall be deemed to be the author of the drawings and data, and shall retain all common law, statutory law and other rights, including copyrights. The User, by accepting the electronic files, agrees to assume all risk and liabilities associated with the use of the information provided by the Architect and understand the Architect makes no claim or warranty as to the suitability or usefulness of the information for any purpose. The User also agrees, to the fullest extent permitted by law, to hold harmless and indemnify the Architect from and against any and all claims, liabilities, losses, damages and costs, including but not limited to attorney's fees, arising from or in connection with the use, misuse, modification, or misinterpretation of the electronic data provided by the Architect. Use of the attached computer-based information indicates acceptance and constitutes agreement to abide by the terms and conditions of this agreement.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements:
 1. Post electronic submittals as PDF electronic files directly to the web-based project management software (Prolog Converge). Notify the Architect and Construction Manager of the presence of the submittal(s) via email with identification of the specific materials posted. In web-based project management software, include link for all submittal register items associated with the submittal package. Where possible, endeavor to include all

SECTION 01 33 00 - SUBMITTAL PROCEDURES

- required action submittals for that specification section.
- a. Architect, through Construction Manager, will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Submit electronic submittals via email as PDF files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 3. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 01 77 00 "Closeout Procedures."
 4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically- submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
 5. Test and Inspection Reports Submittals: Comply with requirements specified in Section 01 40 00 "Quality Requirements."
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
 6. Submit Product Data in the following format:
 - a. PDF electronic file with transmittal as noted above.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data. Submittals based upon Architect's digital data drawing files will be permitted.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.

SECTION 01 33 00 - SUBMITTAL PROCEDURES

"Construction Progress Document."

- G. Application for Payment: Comply with requirements specified in Section 01 29 00 "Payment Procedures."
- H. Schedule of Values: Comply with requirements specified in Section 01 29 00 "Payment Procedures."
- I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Wherever possible, including CSI numbers with description of work being completed. Also, provide DIR numbers for all subcontractors and vendors listed. Provide an updated list when any changes take place along with and explanation of what changed and why.
 - 1. Submit subcontract list in the following format:
 - a. PDF electronic file.
- J. Coordination Drawings: Comply with requirements specified in Section 01 31 00 "Project Management and Coordination."
- K. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- L. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.
- M. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- N. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- O. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- P. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- Q. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- R. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- S. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.

SECTION 01 33 00 - SUBMITTAL PROCEDURES

- T. Schedule of Tests and Inspections: Comply with requirements specified in Section 01 40 00 "Quality Requirements."
- U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- W. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- X. Maintenance Data: Comply with requirements specified in Section 01 78 23 "Operation and Maintenance Data."
- Y. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES (Including DEFERRED APPROVALS)

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file and three (3) paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect and Construction Manager.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Section 01 77

SECTION 01 33 00 - SUBMITTAL PROCEDURES

00 "Closeout Procedures."

- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER'S ACTION

- A. General: Construction Manager will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect and Construction Manager will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - 1. Final Unrestricted Release: Where the submittal is marked "No Exceptions Taken," the Work covered by the submittal may proceed provided it complies with the Contract Documents. Final acceptance will depend on that compliance.
 - 2. Final-but-Restricted Release: Where the submittal is marked "Reviewed with Exceptions as Noted," the Work covered by the submittal may proceed provided it complies with both Architect's notations and corrections on the submittal and the Contract Documents. Final acceptance will depend on that compliance.
 - 3. Returned for Resubmittal: Where the submittal is marked "Revise and Resubmit," do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity for the product submitted. Revise or prepare a new submittal according to Architect's notations and corrections.
 - 4. Rejected: Where the submittal is marked "Rejected," do not proceed with the Work covered by the submittal. Prepare a new submittal for a product that complies with the Contract Documents.
 - 5. Incomplete: Where the submittal is marked "Submit Specified Item," do not proceed with the Work covered by the submittal. Prepare additional information requested, or required by the Contract Documents, that indicates compliance with requirements.
- C. Informational Submittals: Architect and Construction Manager will review each submittal and will not return it or will return it if it does not comply with requirements. Construction Manager will forward each submittal to appropriate party.
- D. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

-END OF SECTION-

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SECTION 01 35 33.21 - NOVEL CORONAVIRUS (COVID-19)
SAFETY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: COVID-19 safety requirements in response to the need for work on essential construction projects that are permissible under the San Mateo County Public Health Department COVID-19 Health Officer Orders and applicable State and Federal guidelines/orders, to continue as safely as possible.
- B. These COVID-19 safety requirements are not all encompassing and may need to be modified by the Contractor to individual construction tasks and updated as the COVID-19 pandemic evolves.
- C. The Contractor and all its sub-tier level subcontractors and suppliers shall account in their Bid and sub-bids for all cost impacts whether affecting labor (including, but not limited to obtaining qualified workers, quantity of workers, as well as their productivity), deliveries, supervision, testing and/or procurement of materials and/or equipment and time caused by COVID-19 safety requirements found in this Section 01 11 70 and also all public health and/or governmental directives in place at the time Bids are received by the County for this Project.
- D. Related Sections:
 - 1. Section 01 33 00 – Submittal Procedures

1.2 COVID-19 EXPOSURE PREVENTION, PREPAREDNESS, AND RESPONSE PLAN

- A. Contractor's Responsibility
 - 1. The Contractor shall prepare a COVID-19 Exposure Prevention, Preparedness and Response Plan specific to this Project that describes how to prevent worker exposure to coronavirus, protective measures to be taken on the jobsite, personal protective equipment and work practice controls to be used, cleaning and disinfecting procedures, and what to do if a worker(s) shows symptoms of COVID-19 illness or tests positive for COVID-19. The Contractor should review the latest OSHA COVID-19 Workplace Safety Guidance document (<https://www.osha.gov/Publications/OSHA3990.pdf>) as a resource in preparation of their Site Specific Health and Safety Plan. Other reliable and current sources of COVID-19 information can be found at:
California Department of Public Health (CDPH, State)
https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/nCOV20_1_9.aspx

Centers for Disease Control and Prevention (CDC, National)
<http://www.cdc.gov/coronavirus/novel-coronavirus-2019.html>
 - 2. Not Used.
 - 3. Also, as part of this Plan, the Contractor shall draft and implement a COVID-19 Code of Safe Practices that is posted in areas visible to all employees and visitors.
 - 4. The Contractor shall be prepared at each Progress and Coordination Meeting, if requested by the Construction Manager, to provide information relevant to the application, enforcement and implementation of such COVID-19 Safe Practices.

SECTION 01 35 33.21 - NOVEL CORONAVIRUS (COVID-19)
SAFETY REQUIREMENTS

5. All Contractor managers and supervisors **(from forepersons to project managers)** must be familiar with this Plan and be ready to answer questions from employees, subcontractors, suppliers and visitors. Managers and supervisors must set a good example by following this Plan at all times. This involves practicing good personal hygiene and jobsite safety practices to prevent the spread of the virus. Managers and supervisors must encourage this same behavior from all employees, subcontractors, suppliers and visitors.
6. The Contractor shall immediately notify the Construction Manager if any person under the Contractor's control on this Project has tested positive for COVID-19.

1.3 SUBMITTALS

- A. The following information shall be provided in accordance with Section 01 33 00, Submittal Procedures, after the Award of Contract and before any work begins at the Site:
 1. COVID-19 Exposure Prevention, Preparedness and Response Plan.
 2. COVID-19 Code of Safe Practices.
- B. To the extent that there are material amendments or modifications made to any of the above plans or practices during the performance of the Work, the Contractor shall provide to the Owner as soon as practicable the amendments and shall post them as part of the notification plan to all employees and visitors who enter the Site.

PART 2 – PRODUCTS (NOT USED) PART

2 – EXECUTION (NOT USED)

-END OF SECTION-

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SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
 - 3. Specific test and inspection requirements are not specified in this Section.

1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. NOT USED
- D. NOT USED
- E. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- F. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- G. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- H. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- I. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- J. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Using a term such as "carpentry" does not imply that certain construction activities must

SECTION 01 40 00 - QUALITY REQUIREMENTS

- J. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to Tradespeople of the corresponding generic name.
- K. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction. See specific specification sections for additional experience requirements.

1.3 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement as defined in the General Conditions. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.4 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Reports: Prepare and submit certified written reports that include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on retesting and re-inspecting.
- C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.5 QUALITY ASSURANCE

County of San Mateo – Hall of Justice Building
Elevator #3 and #7 Modernization

SECTION 01 40 00 - QUALITY REQUIREMENTS

- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
 - C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
 - D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
 - E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or products that are similar to those indicated for this Project in material, design, and extent.
 - F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirement for specialists shall not supersede building codes and regulations governing the Work.
 - G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
 - H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
 - I. NOT USED
 - J. NOT USED
- 1.6 QUALITY CONTROL
- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor (contract sum adjusted through change order procedures).
 - B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities

SECTION 01 40 00 - QUALITY REQUIREMENTS

1.6 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor (contract sum adjusted through change order procedures).
- B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."
- D. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 5. Does not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify

SECTION 01 40 00 - QUALITY REQUIREMENTS

agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

- G. Coordination: Coordinate sequence of activities to accommodate required quality- assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.7 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified testing agency, special inspector and/or Essential Services Inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 3. Submitting a certified written report of each test, inspection, and similar quality- control service to Architect with copy to Contractor and to authorities having jurisdiction.
 4. Submitting a final report of special tests and inspections at Substantial Completion, this includes a list of unresolved deficiencies.
 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Architect.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's and Construction Manager's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

SECTION 01 40 00 - QUALITY REQUIREMENTS

1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
 2. Comply with the Contract Document requirements for Section 01 73 29 "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

-END OF SECTION-

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SECTION 01 42 00 - REFERENCES

PART 1 - GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Name": The official project name is "Hall of Justice Traction Elevators (Multiple) Elevators 3 & 7 Only" but is alternatively referenced as "Hall of Justice (HOJ) Elevators #3 and #7 Modernization". Both project names refer to the same project.
- J. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.

SECTION 01 42 00 - REFERENCES

- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

| | |
|---------|--|
| AA | Aluminum Association, Inc. (The) |
| AAADM | American Association of Automatic Door Manufacturers AABC Associated Air Balance Council |
| AAMA | American Architectural Manufacturers Association |
| AASHTO | American Association of State Highway and Transportation Officials |
| AATCC | American Association of Textile Chemists and Colorists (The) ABAA Air Barrier Association of America |
| ABMA | American Bearing Manufacturers Association ACI ACI International (American Concrete Institute) |
| ACPA | American Concrete Pipe Association |
| AEIC | Association of Edison Illuminating Companies, Inc. (The) |
| AF&PA | American Forest & Paper Association |
| AGA | American Gas Association |
| AGC | Associated General Contractors of America (The) AHA American Hardboard Association (Now part of CPA) |
| AHAM | Association of Home Appliance Manufacturers |
| AI | Asphalt Institute |
| AIA | American Institute of Architects (The) AISC American Institute of Steel Construction AISI American Iron and Steel Institute |
| AITC | American Institute of Timber Construction ALCA Associated Landscape Contractors of America (Now PLANET - Professional Landcare Network) ALSC American Lumber Standard Committee, Incorporated |
| AMCA | Air Movement and Control Association International, Inc. ANSI American National Standards Institute |
| AOSA | Association of Official Seed Analysts, Inc. APA Architectural Precast Association |
| APA | APA - The Engineered Wood Association |
| APA EWS | APA - The Engineered Wood Association; Engineered Wood Systems API American Petroleum Institute |
| ARI | Air-Conditioning & Refrigeration Institute ARMA Asphalt Roofing Manufacturers Association |
| ASCE | American Society of Civil Engineers |

SECTION 01 42 00 - REFERENCES

| | |
|----------|--|
| ASCE/SEI | American Society of Civil Engineers/Structural Engineering Institute (See ASCE) |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers ASME ASME International |
| ASSE | American Society of Sanitary Engineering |
| ASTM | ASTM International (American Society for Testing and Materials International) |
| AWCI | AWCI International (Association of the Wall and Ceiling Industry International) |
| AWCMA | American Window Covering Manufacturers Association (Now WCSC) |
| AWI | Architectural Woodwork Institute AWPA American Wood-Preservers' Association |
| AWS | American Welding Society |
| AWWA | American Water Works Association |
| BHMA | Builders Hardware Manufacturers Association BIA Brick Industry Association (The) |
| BICSI | BICSI |
| BIFMA | BIFMA International (Business and Institutional Furniture Manufacturer's Association International) |
| BISSC | Baking Industry Sanitation Standards Committee |
| CCC | Carpet Cushion Council |
| CDA | Copper Development Association |
| CEA | Canadian Electricity Association |
| CFFA | Chemical Fabrics & Film Association, Inc. |
| CGA | Compressed Gas Association |
| CIMA | Cellulose Insulation Manufacturers Association CISCA Ceilings & Interior Systems Construction Association |
| CISPI | Cast Iron Soil Pipe Institute |
| CLFMI | Chain Link Fence Manufacturers Institute |
| CRRC | Cool Roof Rating Council |
| CPA | Composite Panel Association |
| CPPA | Corrugated Polyethylene Pipe Association |
| CRI | Carpet & Rug Institute (The) |
| CRSI | Concrete Reinforcing Steel Institute |
| CSA | Canadian Standards Association |
| CSA | CSA International (Formerly: IAS - International Approval Services) |
| CSI | Cast Stone Institute |
| CSI | Construction Specifications Institute (The) |
| CSSB | Cedar Shake & Shingle Bureau |
| CTI | Cooling Technology Institute (Formerly: Cooling Tower Institute) |
| DHI | Door and Hardware Institute |
| EIA | Electronic Industries Alliance |

SECTION 01 42 00 - REFERENCES

| | |
|------------------------|--|
| EIMA | EIFS Industry Members Association |
| EJCDC | Engineers Joint Contract Documents Committee |
| EJMA | Expansion Joint Manufacturers Association, Inc. ESD ESD Association |
| FIBA | Federation Internationale de Basketball (The International Basketball Federation) |
| FIVB | Federation Internationale de Volleyball (The International Volleyball Federation) |
| FM Approvals Global | FM Approvals FM FM Global (Formerly: FMG - FM Global) |
| FMRC | Factory Mutual Research (Now FM Global) |
| FRSA | Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc. |
| FSA | Fluid Sealing Association |
| FSC | Forest Stewardship Council |
| GA | Gypsum Association |
| GANA | Glass Association of North America |
| GRI | (Now GSI) |
| GS | Green Seal |
| GSI | Geosynthetic Institute |
| HI | Hydraulic Institute |
| HI | Hydronics Institute |
| HMMA | Hollow Metal Manufacturers Association (Part of NAAMM) |
| HPVA | Hardwood Plywood & Veneer Association |
| HPW | H. P. White Laboratory, Inc. |
| IAS | International Approval Services (Now CSA International) |
| IBF | International Badminton Federation |
| ICEA | Insulated Cable Engineers Association, Inc. |
| ICRI | International Concrete Repair Institute, Inc. IEC International Electrotechnical Commission |
| IEEE | Institute of Electrical and Electronics Engineers, Inc. (The) |
| IESNA | Illuminating Engineering Society of North America |
| IEST | Institute of Environmental Sciences and Technology |
| IGCC | Insulating Glass Certification Council |
| IGMA | Insulating Glass Manufacturers Alliance |
| ILI | Indiana Limestone Institute of America, Inc. ISO International Organization for Standardization |
| ISSFA | International Solid Surface Fabricators Association ITS Intertek Testing Service NA |
| ITU | International Telecommunication Union KCMA Kitchen Cabinet Manufacturers Association |
| LMA | Laminating Materials Association |

SECTION 01 42 00 - REFERENCES

| | |
|-------|---|
| | (Now part of CPA) |
| LPI | Lightning Protection Institute |
| MBMA | Metal Building Manufacturers Association MFMA Maple Flooring Manufacturers Association, Inc. |
| MFMA | Metal Framing Manufacturers Association, Inc. MH Material Handling |
| MHIA | Material Handling Industry of America MIA Marble Institute of America |
| MPI | Master Painters Institute |
| MSS | Manufacturers Standardization Society of The Valve and Fittings Industry Inc. |
| NAAMM | National Association of Architectural Metal Manufacturers NACE NACE International (National Association of Corrosion Engineers International) |
| NADCA | National Air Duct Cleaners Association |
| NAGWS | National Association for Girls and Women in Sport NAIMA North American Insulation Manufacturers Association |
| NBGQA | National Building Granite Quarries Association, Inc. NCAA National Collegiate Athletic Association (The) NCMA National Concrete Masonry Association |
| NCPI | National Clay Pipe Institute |
| NCTA | National Cable & Telecommunications Association |
| NEBB | National Environmental Balancing Bureau |
| NECA | National Electrical Contractors Association NeLMA Northeastern Lumber Manufacturers' Association |
| NEMA | National Electrical Manufacturers Association NETA InterNational Electrical Testing Association |
| NFHS | National Federation of State High School Associations |
| NFPA | NFPA (National Fire Protection Association) |
| NFRC | National Fenestration Rating Council |
| NGA | National Glass Association |
| NHLA | National Hardwood Lumber Association |
| NLGA | National Lumber Grades Authority |
| NOFMA | NOFMA: The Wood Flooring Manufacturers Association (Formerly: National Oak Flooring Manufacturers Association) |
| NRCA | National Roofing Contractors Association |
| NRMCA | National Ready Mixed Concrete Association |
| NSF | NSF International (National Sanitation Foundation International) |
| NSSGA | National Stone, Sand & Gravel Association |
| NTMA | National Terrazzo & Mosaic Association, Inc. (The) |
| NTRMA | National Tile Roofing Manufacturers Association (Now TRI) |
| NWWDA | National Wood Window and Door Association (Now WDMA) |

SECTION 01 42 00 - REFERENCES

| | |
|----------|--|
| OPL | Omega Point Laboratories, Inc. (Now ITS) |
| PCI | Precast/Prestressed Concrete Institute |
| PDCA | Painting & Decorating Contractors of America PDI Plumbing & Drainage Institute |
| PGI | PVC Geomembrane Institute |
| PLANET | Professional Landcare Network (Formerly: ACLA - Associated Landscape Contractors of America) PTI Post-Tensioning Institute |
| RCSC | Research Council on Structural Connections |
| RFCI | Resilient Floor Covering Institute |
| RIS | Redwood Inspection Service |
| SAE | SAE International |
| SDI | Steel Deck Institute |
| SDI | Steel Door Institute |
| SEFA | Scientific Equipment and Furniture Association |
| SEI/ASCE | Structural Engineering Institute/American Society of Civil Engineers (See ASCE) |
| SGCC | Safety Glazing Certification Council SIA Security Industry Association |
| SIGMA | Sealed Insulating Glass Manufacturers Association (Now IGMA) |
| SJI | Steel Joist Institute |
| SMA | Screen Manufacturers Association |
| SMACNA | Sheet Metal and Air Conditioning Contractors' National Association |
| SMPTE | Society of Motion Picture and Television Engineers |
| SPFA | Spray Polyurethane Foam Alliance (Formerly: SPI/SPFD - The Society of the Plastics Industry, Inc.; Spray Polyurethane Foam Division) |
| SPIB | Southern Pine Inspection Bureau (The) |
| SPRI | Single Ply Roofing Industry |
| SSINA | Specialty Steel Industry of North America |
| SSPC | SSPC: The Society for Protective Coatings |
| STI | Steel Tank Institute |
| SWI | Steel Window Institute |
| SWRI | Sealant, Waterproofing, & Restoration Institute TCA Tile Council of America, Inc. |
| TIA/EIA | Telecommunications Industry Association/Electronic Industries Alliance TMS The Masonry Society |
| TPI | Truss Plate Institute, Inc. |
| TPI | Turfgrass Producers International |
| TRI | Tile Roofing Institute |
| UL | Underwriters Laboratories Inc. |
| UNI | Uni-Bell PVC Pipe Association |
| USAV | USA Volleyball |
| USGBC | U.S. Green Building Council |

SECTION 01 42 00 - REFERENCES

| | |
|--------|--|
| USITT | United States Institute for Theatre Technology, Inc. |
| WASTEC | Waste Equipment Technology Association |
| WCLIB | West Coast Lumber Inspection Bureau WCMA Window Covering Manufacturers Association (Now WCSC) |
| WCSC | Window Covering Safety Council (Formerly: WCMA - Window Covering Manufacturers Association) |
| WDMA | Window & Door Manufacturers Association (Formerly: NWWDA - National Wood Window and Door Association) WI Woodwork Institute (Formerly: WIC - Woodwork Institute of California) |
| WIC | Woodwork Institute of California (Now WI) |
| WMMPA | Wood Moulding & Millwork Producers Association |
| WSRCA | Western States Roofing Contractors Association WWPA Western Wood Products Association |

- B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

| | |
|------------|--|
| BOCA | BOCA International, Inc. (See ICC) |
| IAPMO | International Association of Plumbing and Mechanical Officials ICBO International Conference of Building Officials (See ICC) |
| ICBO ES | ICBO Evaluation Service, Inc. (See ICC-ES) |
| ICC | International Code Council |
| ICC-ES | ICC Evaluation Service, Inc. |
| SBCCI | Southern Building Code Congress International, Inc. (See ICC) |
| UBC | Uniform Building Code (See ICC) |

- C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

| | |
|------|------------------------------------|
| CE | Army Corps of Engineers |
| CPSC | Consumer Product Safety Commission |
| DOC | Department of Commerce |
| DOD | Department of Defense |
| DOE | Department of Energy |
| EPA | Environmental Protection Agency |

SECTION 01 42 00 - REFERENCES

| | |
|-----------|--|
| FAA | Federal Aviation Administration |
| FCC | Federal Communications Commission |
| FDA | Food and Drug Administration |
| GSA | General Services Administration |
| HUD | Department of Housing and Urban Development LBL Lawrence Berkeley National Laboratory |
| NCHR P | National Cooperative Highway Research Program (See TRB) |
| NIST | National Institute of Standards and Technology |
| OSHA | Occupational Safety & Health Administration PBS Public Building Service (See GSA) |
| PHS | Office of Public Health and Science |
| RUS | Rural Utilities Service (See USDA) |
| SD | State Department |
| TRB | Transportation Research Board |
| USDA | Department of Agriculture USPS Postal Service |

- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list.

| | |
|---------|--|
| ADAAG | Americans with Disabilities Act (ADA) Architectural Barriers Act (ABA) |
| CFR | Code of Federal Regulations |
| DOD | Department of Defense Military Specifications and Standards |
| DSCC | Defense Supply Center Columbus (See FS) |
| FED-STD | Federal Standard (See FS) |
| FS | Federal Specification |
| FTMS | Federal Test Method Standard (See FS) |
| MIL | (See MILSPEC) |
| MIL-STD | (See MILSPEC) |
| MILSPEC | Military Specification and Standards UFAS Uniform Federal Accessibility Standards |

- E. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

SECTION 01 42 00 - REFERENCES

CALTRANS State of California Transportation Agency
CBHF State of California, Department of Consumer Affairs Bureau of Home Furnishings and Thermal
Insulation
CCR California Code of Regulations
CPUC California Public Utilities Commission TFS
Texas Forest Service
Forest Resource Development

PART 2 - PRODUCTS (Not Used) PART 3 -

EXECUTION (Not Used)

-END OF SECTION-

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SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes requirements for temporary fencing, utilities, support facilities, and security and protection facilities.
- B. See Section 01 73 00 "Execution Requirements" for progress cleaning requirements.
- C. See Divisions 02 through 33 Sections for temporary heat, ventilation, and humidity requirements for products in those Sections.

1.2 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weather tight; exterior walls are insulated and weather tight; and all openings are closed with permanent construction or substantial temporary closures.

1.3 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Construction Manager, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Water Service: Water from Owner's existing water system is available for use. Contractor is responsible for coordination of this activity with the Owner.
- C. Electric Power Service: Contractor to provide connections and extensions of services as required for construction operations. Contractor will be responsible to coordinate and make arrangements with Owner to provide temporary power to the construction site. Contractor will be responsible for all costs associated with the installation of temporary power and any and all use charges for the duration of the contract. **Contractor shall provide temporary power as required to allow for construction power.**
 - a. If using a generator, contractor to abide by all local laws and regulation including CEQA conditions of approval. See plan sheets G - 003/ 004 (also attached as supplement).
- D. Internet Service/Data: Temporary hardwired service may be available in the immediate area of the site, but contractor may pursue engineering and installation of temporary hardwired service at their own cost. Contractor may need to pursue other options to meet the contractual temporary service requirements (satellite, etc.).
- E. Temporary Fencing: Contractor to provide temporary fencing at the perimeter of the project site with adequate protection provided to pedestrians outside of the project site. If there is any exposure to falling objects outside of the project site, then the Contractor must provide a covered walkway.

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

1.4 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel and Construction Managers.
- B. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire prevention program.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibility.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Temporary Chain-Link Fencing: Minimum 2-inch, 9-gage, galvanized steel, chain-link fence with privacy screening fabric mesh; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top and bottom rails. Galvanized Steel posts will be required to be driven into the ground for support and stability or portable fencing, if appropriate, with sufficient hold down weight to prevent overturning.

2.2 TEMPORARY FACILITIES FOR PROJECT SITE

- A. Not Used
- B. Field Offices: Provide and maintain for the duration of the Work temporary offices on site for use by the Contractor. Temporary office space may be provided by the County
 1. Contractor shall provide secure wireless cellular and internet capabilities to allow for onsite users access to email and the internet.

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
- D. Temporary Field Fencing: Provide fence size, material and privacy screen fabric mesh to encompass each site, furnish and installed, equipped for entrance of utility trucks (16- foot gates) and man gates for easy access.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 - 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return air grille in system and remove at end of construction.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

3.2 TEMPORARY UTILITY INSTALLATION FOR PROJECT SITE

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Electrical Power and Lighting:
 - 1. Contractor will pay for power during the course of the work. Contractor shall be responsible for providing temporary facilities required on the Site to point of intended use.
 - 2. Contractor shall furnish, wire for, install and maintain temporary electrical lights wherever it is necessary to provide illumination for the proper performance and/ or observe of the Work: a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work.
 - 3. Contractor shall be responsible for maintaining existing lighting levels in the Project vicinity should temporary outage or service interruptions occur.
- C. NOT USED
- D. NOT USED
- E. Sanitary Facilities: Owner shall provide toilets, wash facilities, and drinking water for use of construction personnel.
- F. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- G. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- H. Electric Power Service: It is the Contractor's responsibility to coordinate with Owner to obtain the temporary electrical service, including submission of services applications, load calculation, and single line diagrams. The Contractor will also be responsible for payment of the monthly invoices and all other temporary requirements as outlined within the specification section.

Contractor shall provide electric distribution system of sufficient size, capacity, and power characteristics required for construction operations.

- 1. See Section 1.3.C

- I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.3 Temporary Controls

- A. Noise Control

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

1. Contractor acknowledges that adjacent facilities may remain in operation during all or a portion of the Work, and it shall take all reasonable precaution to minimize noise as required by applicable laws and the Contract Documents.
2. Notices of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to the County a minimum of forty-eight (48) hours in advance of their performance. Contractor responsible for obtaining all permits required for construction noise outside of the times allowable within the noise ordinance.
3. Contractor to meet the Conditions of Approval related to Noise Control as defined in the Contract Documents.

B. Noise and Vibration

1. Equipment and impact tools shall have intake and exhaust mufflers.
2. Contractor shall cooperate with the County to minimize and /or cease the use of noisy and vibratory equipment if that equipment becomes objectionable by its longevity.
3. Contractor to meet the Conditions of Approval related to noise and vibration as defined in the Contract Documents.

C. Dust and Dirt

1. Contractor shall conduct demolition and construction operations to minimize the generation of dust and dirt and prevent dust and dirt from interfering with the progress of the Work and from accumulating in the Work and adjacent areas including, without limitation, occupied facilities.
2. Contractor shall periodically water exterior demolition and construction areas to minimize the generation of dust and dirt.
3. Contractor shall ensure that all hauling equipment and trucks carrying loads of soil and debris shall have their loads sprayed with water or covered with tarpaulins, and as otherwise required by local and state ordinance.
4. Contractor shall prevent dust and dirt from accumulating on walks, roadways, parking areas, and planting, and from washing into sewer and storm drain lines.
5. Contractor to meet the Conditions of Approval related to dust and dirt as defined in the Contract Documents.
6. Comply with FAA Orders and Standards.

3.4 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide incombustible construction for shops, and sheds located within construction area or within thirty (30) feet of building lines. Comply with NFPA 241.
2. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

B. NOT USED

C. NOT USED

D. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

E. Parking: Contractor is to provide temporary parking for construction personnel within confines of the designated construction site. If parking within the designated construction site becomes unavailable due to number of Trades, Subcontractors and Vendors, Contractor shall be responsible for coordinating with the County, or local jurisdiction for parking

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

requirements, locations, permits, shuttle services, etc. Contractor is to review and follow all related Conditions of Approval, Laws and Regulations from the County.

- F. NOT USED
- G. Project Identification and Temporary Signs: Provide Project identification and other signs as indicated on drawings or required by the County or the City. Install signs were indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.
 - 1. Provide temporary, directional signs for construction personnel and visitors.
 - 2. Maintain and touchup signs so they are legible at all times.
- H. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Section 01 73 00 "Execution Requirements" for progress cleaning requirements.
- I. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- B. NOT USED
- C. NOT USED
- D. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Obtain extended warranty for Owner. Perform control operations lawfully, using environmentally safe materials.
- E. Temporary Site Enclosure Fence: All costs associated with the install, monthly fencing rental fees and demobilization of the fencing will be the responsibility of the contractor. Furnish and install any additional site enclosure fence panels in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Temporary Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations and protection of the public. Operations include temporary offices, parking, staging areas, actual construction site.
- F. NOT USED
- G. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- H. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

activities. Provide temporary weather-tight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
2. Insulate partitions to provide noise protection to occupied areas.
3. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
4. Protect air-handling equipment.
5. Weather strip openings.
6. Provide walk-off mats at each entrance through temporary partition.

- I. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 1. Smoking is prohibited in all construction areas.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures."

-END OF SECTION-

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01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. See Section 01 77 00 "Closeout Procedures" for submitting warranties for Contract closeout.
- C. See Divisions 02 through 48 Sections for specific requirements for warranties on products and installations specified to be warranted.
- D. See Divisions 02 through 48 Sections for specific requirements for LEED.

1.2 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or were indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

01 60 00 - PRODUCT REQUIREMENTS

1.3 SUBMITTALS

- A. Substitution Requests: Must comply with the requirements of the Contract and General Conditions.
- B. Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: CSI Form 13.1A.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - j. Cost information, including a proposal of change, if any, in the Contract Sum.
 - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
 - 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of

01 60 00 - PRODUCT REQUIREMENTS

proposed substitution within fourteen (14) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

- a. Form of Acceptance: Change Order.
- b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.

C. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within fourteen (14) calendar days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

- a. Form of Approval: As specified in Section 01 33 00 "Submittal Procedures."
- b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.

D. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01 33 00 "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

C. Storage:

01 60 00 - PRODUCT REQUIREMENTS

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.

1.6 MANUFACTURER'S LABELS AND NAME PLATES

- A. Except as otherwise indicated for required labels and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on the exterior of the completed project. Visible, non-required labels and nameplates shall be removed.
 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.
 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate the nameplate on an easily accessible surface which is inconspicuous in occupied spaces. The name plate shall contain the following information as well as other essential operating data:
 - a. Name of manufacturer.
 - b. Model number.
 - c. Serial number.
 - d. Capacity.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.

01 60 00 - PRODUCT REQUIREMENTS

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
 3. Refer to Divisions 2 through 48 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section 01 77 00 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
 3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in the Contract, General Conditions, and Part 2 "Comparable Products" Article for consideration of an unnamed product.

01 60 00 - PRODUCT REQUIREMENTS

6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in the Contract, General Conditions, and Part 2 "Comparable Products" Article for consideration of an unnamed product.
7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in the Contract, General Conditions, and Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in the Contract, General Conditions, and Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in the Contract, General Conditions, and Part 2 "Product Substitutions" Article for proposal of product.
10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns and textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 1. Procedures within the General Conditions and Contract are followed.
 2. Evidence that the proposed product does not require extensive revisions to the contract documents that it is consistent with the contract documents and will

01 60 00 - PRODUCT REQUIREMENTS

- produce the indicated results, and that it is compatible with other portions of the Work.
3. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 4. Evidence that proposed product provides specified warranty.
 5. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 6. Samples, if requested.

PART 3 - EXECUTION (Not Used)

-END OF SECTION-

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SECTION 01 73 00 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. General installation of products.
 - 4. Cutting and patching.
 - 5. Progress cleaning.
 - 6. Starting and adjusting.
 - 7. Protection of installed construction.
 - 8. Correction of the Work.
- B. See Section 01 78 39 "Project Record Documents" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
- C. Related Requirements:
 - 1. Division 00 General Conditions and Special Conditions
 - 2. Section 01 10 00 "Summary" for limits on use of Project site.
 - 3. Section 01 77 00 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.2 SUBMITTALS

- A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Survey reports and plots as detailed below.

1.3 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as

SECTION 01 73 00 - EXECUTION REQUIREMENTS

intended or that results in increased maintenance or decreased operational life or safety.

1.4 EXAMINATION

- A. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping, and underground electrical services.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

1.5 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

SECTION 01 73 00 - EXECUTION REQUIREMENTS

1.6 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. NOT USED
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

1.7 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

SECTION 01 73 00 - EXECUTION REQUIREMENTS

C. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.

D. NOT USED

1.8 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

F. Templates: Obtain and distribute to the parties' involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
2. Allow for building movement, including thermal expansion and contraction.
3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

SECTION 01 73 00 - EXECUTION REQUIREMENTS

- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

1.9 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
- F. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

1.10 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 deg F.

SECTION 01 73 00 - EXECUTION REQUIREMENTS

3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
 - C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 1. Remove liquid spills promptly.
 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
 - D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
 - E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
 - F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
 - G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
 - H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
 - I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
 - J. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.
- 1.11 STARTING AND ADJUSTING
- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
 - B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
 - C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

SECTION 01 73 00 - EXECUTION REQUIREMENTS

- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Section 01 40 00 "Quality Requirements."

1.12 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

1.13 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Section 01 73 29 "Cutting and Patching."
 - 1. Repairing including replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

-END OF SECTION-

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SECTION 01 73 29 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. See Divisions 2 through 48 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.2 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
 - 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
 - 7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.3 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, and result in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

SECTION 01 73 29 - CUTTING AND PATCHING

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer, comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.

SECTION 01 73 29 - CUTTING AND PATCHING

4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 4. Ceilings: Patch, repair, or re-hang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

-END OF SECTION-

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SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.1 SUMMARY – WASTE MANAGEMENT GOALS

- A. Section includes administrative and procedural requirements for salvaging, recycling and disposing of nonhazardous demolition and construction waste.
- B. The Owner has established that this Project shall generate the least amount of waste possible and processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors shall be employed.
- C. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized.

1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal of off-site waste and subsequent sale, recycling, reuse or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitability, corrosivity, toxicity or reactivity.
- E. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- F. Recycle: Recovery of waste from the Project site to another site for subsequent processing in preparation for reuse
- G. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of recycling. Recycling does not include burning, incinerating, or thermally destroying waste.
- H. Salvage: To remove a waste material from the Project site for subsequent sale or reuse in another facility.
- I. Salvage and Reuse: Recovery of waste and subsequent incorporation into the Work

1.3 PERFORMANCE REQUIREMENTS

- A. Develop and implement a waste management program resulting in an end-of-project rates for salvage/recycling of minimum 65 percent by weight or volume of the total waste generated by the project.

SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT

- B. Regulations: The Contractor shall be responsible for knowing and complying with regulatory requirements, Federal, State, and Local, pertaining to legal disposal of all construction and demolition waste materials.
- C. Coordination: Coordinate the recycling of materials with Owner and Subcontractors as required to conform to the Construction Waste Management Plan.
- D. Site Access and Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Waste Management Meetings: Conduct on-site waste management meetings with all subcontractors. Review and discuss the waste management plan, methods, procedures and each party's roles and responsibilities.
- C. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- D. Packing and Shipping
 - 1. Shipping: Coordinate the schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
 - 2. Packing: Arrange for the return of packing materials, such as wood pallets, where economically feasible.
- E. Handling
 - 1. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
 - 2. Promptly inspect shipments to assure products comply with requirements, quantities are correct, and products are undamaged.
 - 3. Promptly return damaged shipments or incorrect orders to manufacturer for credit or refund.
- F. Storage: Store products in accordance with manufacturer's recommendations and periodically inspect to assure that stored products are undamaged and are maintained under required conditions.
- G. Preparation
 - 1. Storage and Protection:
 - a. Designate receiving/storage areas for incoming material to be delivered according to installation schedule and to be placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
 - b. Store and handle materials in a manner as to prevent loss from weather and other damage. Keep materials covered and off the ground, and store in a dry, secure area.
 - c. Prevent contact with material that may cause corrosion, discoloration, or staining.
 - d. Protect all materials and installations from damage by the activities of other trades.

SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT

H. Waste Management

1. Source separated waste: Separate, store, protect, and handle at the site identified recyclable and salvageable waste products in order to prevent contamination of materials and to maximize recyclability and salvageability of identified materials.
2. Commingled Waste: Waste may be commingled at the site and separated at a recycling facility.
3. Return: Set aside and protect missed-delivered and substandard products and materials and return to supplier for credit.
4. Reuse and Salvage: Set aside, sort, and protect separated products and materials for collection, re-use on site by contractor, and salvage by other.
5. Recycling: Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.

1.5 WASTE MANAGEMENT PLAN

A. Waste Identification: Indicate anticipated types and quantities of demolition, site- clearing and construction waste generated by the Work. Include estimated quantities and assumptions for estimates

B. The list of these materials is to include, at minimum, the following materials:

1. Cardboard.
2. Clean dimensional wood.
3. Beverage containers.
4. Land clearing debris.
5. Concrete.
6. Bricks.
7. Concrete Masonry Units (CMU).
8. Metals from banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
9. Drywall.
10. Carpet and carpet pads.

2 PRODUCTS – NOT USED

3 EXECUTION

3.3 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: The Contractor shall designate an on-site party (or parties) responsible for instructing workers and overseeing and documenting results of the Waste Management Plan for the Project.
- B. Distribution: The Contractor shall distribute copies of the Waste Management Plan to the Job Site Foreman, each Subcontractor, the Owner, and the Owner's Representative.
- C. Instruction and Training: The Contractor shall provide on-site instruction and train workers, subcontractors and suppliers of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used.
- D. Separation facilities: The Contractor shall layout and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials. Waste may be commingled at the site in a specific label area for pickup by the waste hauler and

SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT

separated at a recycling facility.

- E. Hazardous wastes: Hazardous wastes shall be separated, stored, and disposed of according to local regulations.
- F. Contractor shall provide a monthly summary to the LEED Consultant with the following information:
- G. The amount (in tons or cubic yards) of material landfilled from the Project, the identity of the landfill, the total amount of tipping fees paid at the landfill, and the total disposal cost. Include manifests, weight tickets, receipt, and invoices.
- H. For each material recycled, reused, or salvaged from the Project, the amount (in tons or cubic yards), the date (removed from the jobsite, the receiving party, the transportation cost, the amount of any money paid or received for the recycled or salvaged material, and the net total cost or savings of salvage or recycling each material). Attach manifests, weight tickets, receipts, and invoices.

3.4 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Owner.

Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.

- C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan
- D. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin. Regularly inspect bins for contamination.
- E. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
- F. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
- G. Store components off the ground and protect from the weather.
- H. Remove recyclable waste from Owner's property per approved Waste Management Plan.

3.5 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.

SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

3.6 INSTALLATION

- A. Install product(s) per manufacturer's recommendations to reduce damage to or waste of materials by required replacement.

3.7 TRANSPORTATION

- A. Transport materials in covered trucks to prevent contamination of product or littering of surrounding areas.

3.8 GENERAL CLEANING

- A. Control accumulation of waste materials and trash. Recycle or dispose of off-site at intervals approved by the Owner and in compliance with waste management procedures.
- B. Cleaning materials: Use cleaning materials that are non-hazardous.

3.9 FINAL CLEANING

- A. Cleaning Materials: Only non-hazardous cleaning materials shall be used in the final cleanup.
- B. Recycle, salvage, and return construction and demolition waste from Project.
- C. Arrange for pick-up of salvageable materials in accordance with the Waste Management Plan.
- D. Disposal Operations: Promptly and legally transport and dispose of any trash. Do not burn, bury, or otherwise dispose of trash on the Project site.

-END OF SECTION-

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SECTION 01 74 20 - CLEANING

PART 1 – GENERAL

1.1 Section Includes

- A. Cleaning throughout the construction period, and final project cleaning prior to the acceptance tour.

1.2 Related Sections

- A. Section 01 50 00 - Temporary Facilities and Controls

1.3 Quality Assurance

- A. Inspection: Conduct daily inspection, and more often, if necessary, to verify that requirements of cleanliness are being met.
- B. Codes and Standards: In addition to the requirements specified herein, comply with pertinent requirements of authorities having jurisdiction.

PART 2 – PRODUCTS

2.1 Cleaning Materials and Equipment

- A. Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.2 Compatibility

- A. Use cleaning materials and equipment that are compatible with the surfaces being cleaned, as recommended by the manufacturer of the material to be cleaned.

PART 3 – EXECUTION

3.1 Progress Cleaning

- A. General:
 1. Retain stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
 2. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this work. Debris shall be removed from the site and disposed of in a lawful manner. Disposal receipts or dump tickets shall be furnished to Architect upon request.
 3. At least twice each month, and more often, if necessary, remove scrap debris, and waste material from the job site.
 4. Provide adequate storage for items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.
- B. Site:
 1. Daily, and more often, if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove items to the place designated for their storage. Flammable waste shall be kept in sealed metal containers until removed from the site.
 2. Weekly, and more often, if necessary, inspect, arrangements of materials stored on the site; restack, tidy, or otherwise service arrangements to meet the requirements specified

SECTION 01 74 20 - CLEANING

- above.
3. Maintain the site in a neat and orderly condition.
- C. Structures:
1. Weekly, and more often, if necessary, inspect the structures and pick up scrap, debris, and waste material. Remove items to the place designated for their storage.
 2. Weekly, and more often, if necessary, sweep interior spaces clean.
 - a. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and a handheld broom, i.e., "broom-clean".
 3. As required preparatory to installation of succeeding materials, clean the structures of pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the required cleanliness.
 4. Following the installation of finish floor materials, clean the finish floor daily, and more often if necessary, and while work is being performed in the space in which finish materials have been installed.
 - a. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from foreign material that, in the opinion of the Architect, may be injurious to the finish floor material, i.e., "vacuum-clean".
- C. General: The General Conditions require general cleaning during construction. Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste, conduct final progress cleaning as described below.
- D. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions. Unless otherwise specifically directed by the Architect, water and broom clean paved areas on the site and public paved areas directly adjacent to the site. Remove resultant debris
- F. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion.
1. Remove labels that are not permanent labels.
 2. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
- G. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces. Sweep and mop vinyl and rubber surfaces.
- H. Structures:
1. Exterior: In areas affected by the work under this contract, visually inspect exterior surfaces and remove traces of soil, waste material, smudges, and other foreign matter. Remove traces of splashed material from adjacent surfaces. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure.
 2. In the event of stubborn stains not removable with water, the Architect may require light sandblasting or other cleaning at no additional cost to the County.
- I. Interior: In areas affected by the work under this contract, visually inspect interior surfaces and remove traces of soil waste material, smudges, and other foreign matter. Remove traces

SECTION 01 74 20 - CLEANING

of splashed materials from adjacent surfaces. Remove paint drippings, spots, stains, and dirt from finished surfaces. Use only the cleaning materials and equipment instructed by the manufacturer of the surface material.

- J. Glass: Clean glass inside and outside.
- K. Polished surfaces: On surfaces requiring the routine application of buffed polish, apply the polish recommended by the manufacturer of the material being polished. Glossy surfaces shall be cleaned and shined as intended by the manufacturer
 - 1. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 - 2. Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.
- L. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the Project of rodents, insects, and other pests.
- M. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.
- N. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the County's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.
- O. Extra Materials: Where extra materials of value remain after completion of associated Work, they become the County's property. Dispose of these materials as directed by the Owner.
- P. Timing: Schedule final cleaning as accepted by the Architect to enable the County to accept a completely clean project.
- Q. Cleaning During County's Occupancy
 - 1. Should the County occupy the work or any portion thereof prior to its completion by the Contractor and acceptance by the County, responsibilities for interim and final cleaning of the occupied spaces shall be determined by the Architect in accordance with the General Conditions of the Contract.

- End of Section -

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SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Final Completion.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of work.
- B. See Section 01 29 00 "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
- C. See Section 01 78 39 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- D. See Section 01 78 23 "Operation and Maintenance Data" for operation and maintenance manual requirements.
- E. See Section 01 79 00 "Demonstration and Training" for requirements for instructing Owner's personnel.
- F. See Divisions 02 through 48 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 8. Complete startup testing of systems.
 - 9. Submit test/adjust/balance records.
 - 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 11. Advise Owner of changeover in heat and other utilities.
 - 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 - 13. Complete final cleaning requirements, including touchup painting.

SECTION 01 77 00 - CLOSEOUT PROCEDURES

14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
15. Successful completion of Functional Testing for equipment requiring LDD Commissioning.

- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request inspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.3 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Section 01 29 00 "Payment Procedures."
 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit electronic versions of list (including editable file and PDF file). Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, starting with exterior areas first.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file. Architect, through Construction Manager, will return annotated copy.

1.5 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is

SECTION 01 77 00 - CLOSEOUT PROCEDURES

indicated.

- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8- 1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Submittal Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.

SECTION 01 77 00 - CLOSEOUT PROCEDURES

- j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision- obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - m. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - n. Replace parts subject to unusual operating conditions.
 - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - r. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

-END OF SECTION-

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SECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Emergency manuals.
 - 2. Operation manuals for systems, subsystems, and equipment.
 - 3. Maintenance manuals for the care and maintenance of products, materials, and finishes systems and equipment.
- B. See Divisions 02 through 48 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.2 SUBMITTALS

- A. Manual: Submit one copy of each manual in final form at least fifteen (15) days before final inspection. At discretion of Architect, initial submittals may be as PDF files with both hard copies and PDF files of final version. Architect will return copy with comments within fifteen (15) days after final inspection.
 - 1. Correct or modify each manual to comply with Architect's comments. Submit three (3) copies of each corrected manual within fifteen (15) days of receipt of Architect's comments.

PART 2 - PRODUCTS

2.1 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain a title page, table of contents, and manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name, address, and telephone number of Contractor.
 - 6. Name and address of Architect.
 - 7. Cross-reference to related systems in other operation and maintenance manuals.

- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
 - 1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280- mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 - 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 - 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
 - 4. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.2 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for type of emergency, emergency instructions, and emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component for fire, gas leak, water leak, power failure, water outage, equipment failure, and chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include instructions on stopping, shutdown instructions for each type of emergency, operating instructions for conditions outside normal operating limits, and required sequences for electric or electronic systems.

2.3 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and equipment descriptions, operating standards, operating procedures, operating logs, wiring and control diagrams, and license requirements.
- B. Descriptions: Include the following:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.
 - 6. Limiting conditions.
 - 7. Performance curves.
 - 8. Engineering data and tests.
 - 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include start-up, break-in, and control procedures; stopping and normal shutdown instructions; routine, normal, seasonal, and weekend operating instructions; and required sequences for electric or electronic systems.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.4 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross- reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.

SECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

- D. Maintenance Procedures: Include manufacturer's written recommendations and inspection procedures, types of cleaning agents, methods of cleaning, schedule for cleaning and maintenance, and repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including maintenance instructions, drawings and diagrams for maintenance, nomenclature of parts and components, and recommended spare parts for each component part or piece of equipment:
- D. Maintenance Procedures: Include test and inspection instructions, troubleshooting guide, disassembly instructions, and adjusting instructions, and demonstration and training videotape if available, that detail essential maintenance procedures:
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- B. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- C. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
- D. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
- E. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original Project Record Documents as part of operation and maintenance manuals.
- F. Comply with Section 01 77 00 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

-END OF SECTION-

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SECTION 01 78 36 - WARRANTIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing warranties of products and installation.
- B. All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:
 - 1. General Conditions, including, without limitation, Warranty/Guarantee Information;
 - 2. Special Conditions.

1.2 SUBMITTALS

- A. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two-inch maximum ring size.
- B. Cover: Contractor shall identify each binder with typed or printed title "WARRANTIES" and shall list title of Project.
- C. Table of Contents: Contractor shall provide title of Project; name, address, and telephone number of Contractor and equipment supplier, and name of responsible principal. Contractor shall identify each item with the number and title of the specific Specification, document, provision, or section in which the name of the product or work item is specified.
- D. Contractor shall separate each warranty with index tab sheets keyed to the Table of Contents listing, providing full information and using separate typed sheets as necessary. Contractor shall list each applicable and/or responsible Subcontractor(s), supplier(s), and/or manufacturer(s), with name, address, and telephone number of each responsible principal(s).

1.3 PREPARATION:

- A. Contractor shall obtain warranties, executed in duplicate by each applicable and/or responsible subcontractor(s), supplier(s), and manufacturer(s), within ten (10) days after completion of the applicable item or work. Except for items put into use with County's permission, Contractor shall leave date of beginning of time of warranty until the date of completion is determined.
- B. Contractor shall verify that documents are in proper form, contain full information, and are notarized, when required.

SECTION 01 78 36 - WARRANTIES

- C. Contractor shall co-execute submittals when required.
- D. Contractor shall retain warranties until time specified for submittal.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
- F. Comply with Section 01 77 00 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

-END OF SECTION-

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SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
- B. See Section 01 78 23 "Operation and Maintenance Data" for operation and maintenance manual requirements.
- C. See Divisions 02 through 48 Sections for specific requirements for Project Record Documents of the Work in those Sections.

1.2 SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Submit copies of Record Drawings as follows:
 - a. Initial Submittal: Submit one copy of marked-up Record Prints for review. Architect will initial and date each sheet and mark whether general scope of changes, additional information recorded, and quality of drafting are acceptable. Architect will return prints for organizing into sets, printing, binding, and final submittal.
 - b. Final Submittal: Submit one set of the marked-up Record Prints, and the following:
 - 1) PDF file of complete set of record drawings.
 - 2) Record CAD Drawing Files and Plots.
- B. Record Specifications: Submit copy of Project's Specifications, including addenda and contract modifications.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints (Progress): Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 2. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 - 3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, RFI numbers and similar identification, where applicable. **Clearly mark revisions made to original documents – listing reference documents is not sufficient.**
- B. Record Prints (Final): Immediately before inspection for Certificate of Substantial Completion,

SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

review marked-up progress Record Prints with Architect. When authorized, prepare a full set of corrected copies of the Contract Drawings and Shop Drawings.

1. Incorporate changes and additional information previously marked on Record Prints. Erase, redraw, and add details and notations where applicable.
2. Refer instances of uncertainty to Architect for resolution.

C. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets. Provide PDF file of full set of record documents.
2. Record CAD Drawings: Organize CAD information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each CAD file.
3. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, installer, and other information necessary to provide a record of selections made.
4. Note related Change Orders, RFIs and Record Drawings where applicable (including revisions made not just referenced document number).

2.3 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference. Miscellaneous records include, but are not limited to, the following:

1. Field records on underground construction and similar work.
2. Surveys showing locations and elevations of underground lines.
3. Invert elevations of drainage piping.
4. Surveys establishing building lines and levels.
5. Authorized measurements using unit prices or allowances.
6. Records of plant treatment.
7. Ambient and substrate condition tests.
8. Certifications received in lieu of labels on bulk products.
9. Batch mixing and bulk delivery records.
10. Testing and qualification of trade persons.
11. Documented qualification of installation firms.
12. Load and performance testing.
13. Inspections and certifications by governing authorities.
14. Final inspection and correction procedures

SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

-END OF SECTION-

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SECTION 01 79 00 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Demonstration and training DVD's/digital storage device.
- B. See Divisions 02 through 48 for specific requirements for demonstration and training for products in those Sections.

1.2 SUBMITTALS

- A. Instruction Program: Submit two (2) copies of outline of instructional program for demonstration and training, including a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
- B. Demonstration and Training DVD's/digital storage device: Submit two (2) copies within seven (7) days of end of each training module.

1.3 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 01 40 00 "Quality Requirements," experienced in operation and maintenance procedures and training.
- C. Pre-instruction Conference: Conduct conference at Project site. Review methods and procedures related to demonstration and training.
- D. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

SECTION 01 79 00 - DEMONSTRATION AND TRAINING

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections, and as follows:
 - 1. Building Energy Management System.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include system and equipment descriptions, operating standards, regulatory requirements, equipment function, operating characteristics, limiting conditions, and performance curves.
 - 2. Documentation: Review emergency, operations, and maintenance manuals; Project Record Documents; identification systems; warranties and bonds; and maintenance service agreements.
 - 3. Emergencies: Include instructions on stopping; shutdown instructions; operating instructions for conditions outside normal operating limits; instructions on meaning of warnings, trouble indications, and error messages; and required sequences for electric or electronic systems.
 - 4. Operations: Include startup, break-in, control, and safety procedures; stopping and normal shutdown instructions; routine, normal, seasonal, and weekend operating instructions; operating procedures for emergencies and equipment failure; and required sequences for electric or electronic systems.
 - 5. Adjustments: Include alignments and checking, noise, vibration, economy, and efficiency adjustments.
 - 6. Troubleshooting: Include diagnostic instructions and test and inspection procedures.
 - 7. Maintenance: Include inspection procedures, types of cleaning agents, methods of cleaning, procedures for preventive and routine maintenance, and instruction on use of special tools.
 - 8. Repairs: Include diagnosis, repair, and disassembly instructions; instructions for identifying parts; and review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.

SECTION 01 79 00 - DEMONSTRATION AND TRAINING

1. Owner will furnish an instructor to describe Owner's operational philosophy.
 - C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 1. Schedule training with Owner, through Construction Manager, with at least seven days' advance notice.
 - D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a demonstration performance-based test.
- 3.2 DEMONSTRATION AND TRAINING VIDEOTAPES
- A. General: Engage a qualified commercial photographer to record demonstration and training videos. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
 1. At beginning of each training module, record each chart containing learning objective and lesson outline.
 - B. Media Format: Provide high-quality Digital Videos Discs (DVD's) or digital storage device (per the preference of the Owner).
 - C. Narration: Describe scenes on video by audio narration by microphone while video is recorded. Include description of items being viewed. Describe vantage point, indicating location, direction (by compass point), and elevation or story of construction.

-END OF SECTION-

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SECTION 01 91 00 - GENERAL COMMISSIONING REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. Commissioning is intended to achieve the following specific objectives; this section specifies the Contractor's responsibilities for commissioning:
 - 1. Verify that the work is installed in accordance with Contract Documents and the manufacturer's recommendations and instructions, and that it receives adequate operational checkout prior to startup: Startup reports and Pre-functional Checklists executed by Contractor are utilized to achieve this.
 - 2. Verify and document that functional performance is in accordance with Contract Documents: Functional Tests executed by Contractor and witnessed by the Commissioning Authority are utilized to achieve this.
 - 3. Verify that operation and maintenance manuals submitted to County are complete: Detailed operation and maintenance (O&M) data submittals by Contractor are utilized to achieve this.
 - 4. Verify that the County's operating personnel are adequately trained: Formal training conducted by Contractor is utilized to achieve this.
- B. The Commissioning Authority directs and coordinates all commissioning activities; this section describes some but not all of the Commissioning Authority's responsibilities.

1.2 RELATED REQUIREMENTS

- A. Section 01 77 00 - Closeout Submittals: Scope and procedures for operation and maintenance manuals and project record documents.

PART 2 – PRODUCTS

2.1 TEST EQUIPMENT

- A. Provide all standard testing equipment required to perform startup and initial checkout and required Functional Testing; unless otherwise noted such testing equipment will NOT become the property of County.
- B. Calibration Tolerances: Provide testing equipment of sufficient quality and accuracy to test and/or measure system performance with the tolerances specified. If not otherwise noted, the following minimum requirements apply:
 - 1. Temperature Sensors and Digital Thermometers: Certified calibration within past year to accuracy of 0.5-degree F and resolution of plus/minus 0.1-degree F.
 - 2. Pressure Sensors: Accuracy of plus/minus 2.0 percent of the value range being measured (not full range of meter), calibrated within the last year.
 - 3. Calibration: According to the manufacturer's recommended intervals and when dropped or damaged; affix calibration tags or keep certificates readily available for inspection.
- C. Equipment-Specific Tools: Where special testing equipment, tools and instruments are specific to a piece of equipment, are only available from the vendor, and are required in order to accomplish startup or Functional Testing, provide such equipment, tools, and instruments as part of the work at no extra cost to County; such equipment, tools, and instruments are to become the property of County.
- D. Dataloggers: Independent equipment and software for monitoring flows, currents, status, pressures, etc. of equipment.
 - 1. Dataloggers required to for Functional Tests will be provided by the Commissioning Authority and will not become the property of County.

SECTION 01 91 00 - GENERAL COMMISSIONING REQUIREMENTS

PART 3 – EXECUTION

3.1 COMMISSIONING PLAN

- A. Commissioning Authority has prepared the Commissioning Plan.
 - 1. Attend meetings called by the Commissioning Authority for purposes of completing the commissioning plan.
 - 2. Require attendance and participation of relevant subcontractors, installers, suppliers, and manufacturer representatives.
- B. Contractor is responsible for compliance with the Commissioning Plan.
- C. Commissioning Plan: The commissioning schedule, procedures, and coordination requirements for all parties in the commissioning process.
- D. Commissioning Schedule:
 - 1. Submit anticipated dates of startup of each item of equipment and system to Commissioning Authority within 60 days after award of Contract.
 - 2. Re-submit anticipated startup dates monthly, but not less than 4 weeks prior to startup.
 - 3. Pre-functional Checklists and Functional Tests are to be performed in sequence from components, to subsystems, to systems.
 - 4. Provide sufficient notice to Commissioning Authority for delivery of relevant Checklists and Functional Test procedures, to avoid delay.

3.2 STARTUP PLANS AND REPORTS

- A. Startup Plans: For each item of equipment and system for which the manufacturer provides a startup plan, submit the plan not less than 8 weeks prior to startup.

SECTION 01 91 00 - GENERAL COMMISSIONING REQUIREMENTS

- B. Startup Reports: For each item of equipment and system for which the manufacturer provides a startup checklist (or startup plan or field checkout sheet), document compliance by submitting the completed startup checklist prior to startup, signed and dated by responsible entity.
- C. Submit directly to the Commissioning Authority.

3.3 PRE-FUNCTIONAL CHECKLISTS

- A. A Pre-functional Checklist is required to be filled out for each item of equipment or other assembly specified to be commissioned.
 - 1. No sampling of identical or near-identical items is allowed.
 - 2. These checklists do not replace manufacturers' recommended startup checklists, regardless of apparent redundancy.
 - 3. Pre-functional Checklist forms will not be complete until after award of the contract; the following types of information will be gathered via the completed Checklist forms:
 - a. Certification by installing contractor that the unit is properly installed, started up, and operating and ready for Functional Testing.
 - b. Confirmation of receipt of each shop drawing and commissioning submittal specified, itemized by unit.
 - c. Manufacturer, model number, and relevant capacity information; list information "as specified," "as submitted," and "as installed."
 - d. Serial number of installed unit.
 - e. List of inspections to be conducted to document proper installation prior to startup and Functional Testing; these will be primarily static inspections and procedures; for equipment and systems may include normal manufacturer's start-up checklist items and minor testing.
 - f. Sensor and actuator calibration information.
- B. Contractor is responsible for filling out Pre-functional Checklists, after completion of installation and before startup; witnessing by the Commissioning Authority is not required unless otherwise specified.
 - 1. Each line item without deficiency is to be witnessed, initialed, and dated by the actual witness; checklists are not complete until all line items are initialed and dated complete without deficiencies.
 - 2. Checklists with incomplete items may be submitted for approval provided the Contractor attests those incomplete items do not preclude the performance of safe and reliable Functional Testing; re-submission of the Checklist is required upon completion of remaining items.
 - 3. Individual Checklists may contain line items that are the responsibility of more than one installer; Contractor shall assign responsibility to appropriate installers or subcontractors, with identification recorded on the form.
 - 4. If any Checklist line item is not relevant, record reasons on the form.
 - 5. Contractor may independently perform startup inspections and/or tests, at Contractor's option.

SECTION 01 91 00 - GENERAL COMMISSIONING REQUIREMENTS

6. Regardless of these reporting requirements, Contractor is responsible for correct startup and operation.
 7. Submit completed Checklists to Commissioning Authority within two days of completion.
- C. Commissioning Authority is responsible for furnishing the Pre-functional Checklists to Contractor.
1. Initial Drafts: Contractor is responsible for initial draft of Pre-functional Checklist where so indicated in Contract Documents.
 2. Provide all additional information requested by Commissioning Authority to aid in preparation of checklists, such as shop drawing submittals, manufacturers' startup checklists, and O&M data.
 3. Commissioning Authority may add any relevant items deemed necessary regardless of whether they are explicitly mentioned in Contract Documents or not.
 4. When asked to review the proposed Checklists, do so in a timely manner.
- D. Commissioning Authority Witnessing: Required for:
1. Each piece of primary equipment, unless sampling of multiple similar units is allowed by the commissioning plan.
 2. A sampling of non-primary equipment, as allowed by the commissioning plan.
- E. Deficiencies: Correct deficiencies and re-inspect or re-test, as applicable, at no extra cost to County.
1. If difficulty in correction would delay progress, report deficiency to the Commissioning Authority immediately.

3.4 FUNCTIONAL TESTS

- A. A Functional Test is required for each item of equipment, system, or other assembly specified to be commissioned, unless sampling of multiple identical or near-identical units is allowed by the final test procedures.
- B. Contractor is responsible for execution of required Functional Tests, after completion of Pre-functional Checklist and before closeout.
- C. Commissioning Authority is responsible for witnessing and reporting results of Functional Tests, including preparation and completion of forms for that purpose.
- D. Contractor is responsible for correction of deficiencies and re-testing at no extra cost to County; if a deficiency is not corrected and re-tested immediately, the Commissioning Authority will document the deficiency and the Contractor's stated intentions regarding correction.
1. Deficiencies are any condition in the installation or function of a component, piece of equipment or system that is not in compliance with Contract Documents or does not perform properly.
 2. When the deficiency has been corrected, the Contractor completes the form certifying that the item is ready to be re-tested and returns the form to the

SECTION 01 91 00 - GENERAL COMMISSIONING REQUIREMENTS

Commissioning Authority; the Commissioning Authority will reschedule the test and the Contractor shall re-test.

3. Identical or Near-Identical Items: If 10 percent, or three, whichever is greater, of identical or near-identical items fail to perform due to material or manufacturing defect, all items will be considered defective; provide a proposal for correction within 2 weeks after notification of defect, including provision for testing sample installations prior to replacement of all items.
 4. Contractor shall bear the cost of County and Commissioning Authority personnel time witnessing re-testing.
 5. Contractor shall bear the cost of County and Commissioning Authority personnel time witnessing re-testing if the test failed due to failure to execute the relevant Pre-functional Checklist correctly; if the test failed for reasons that would not have been identified in the Pre-functional Checklist process, Contractor shall bear the cost of the second and subsequent re-tests.
- E. Functional Test Procedures:
1. Some test procedures are included in Contract Documents; where Functional Test procedures are not included in Contract Documents, test procedures will be determined by the Commissioning Authority with input by and coordination with Contractor.
 2. Examples of Functional Testing:
 - a. Test the dynamic function and operation of equipment and systems (rather than just components) using manual (direct observation) or monitoring methods under full operation (e.g., the chiller pump is tested interactively with the chiller functions to see if the pump ramps up and down to maintain the differential pressure setpoint).
 - b. Systems are tested under various modes, such as during low cooling or heating loads, high loads, component failures, unoccupied, varying outside air temperatures, fire alarm, power failure, etc.
 - c. Systems are run through all the HVAC control system's sequences of operation and components are verified to be responding as the sequence's state.
 - d. Traditional air or water test and balancing (TAB) is not Functional Testing; spot checking of TAB by demonstration to the Commissioning Authority is Functional Testing.
- F. Deferred Functional Tests: Some tests may need to be performed later, after substantial completion, due to partial occupancy, equipment, seasonal requirements, design or other site conditions; performance of these tests remains the Contractor's responsibility regardless of timing.

3.5 SENSOR AND ACTUATOR CALIBRATION

- A. Calibrate all field-installed temperature, relative humidity, carbon monoxide, carbon dioxide, and pressure sensors and gauges, and all actuators (dampers and valves) on this

SECTION 01 91 00 - GENERAL COMMISSIONING REQUIREMENTS

piece of equipment shall be calibrated. Sensors installed in the unit at the factory with calibration certification provided need not be field calibrated.

- B. Calibrate using the methods described below; alternate methods may be used, if approved by Commissioning Authority and Owner beforehand. See PART 2 for test instrument requirements. Record methods used on the relevant Pre-functional Checklist or other suitable forms, documenting initial, intermediate and final results.
- C. All Sensors:
 - 1. Verify that sensor location is appropriate and away from potential causes of erratic operation.
 - 2. Verify that sensors with shielded cable are grounded only at one end.
 - 3. For sensor pairs that are used to determine a temperature or pressure difference, for temperature make sure they are reading within 0.2-degree F of each other, and for pressure, within tolerance equal to 2 percent of the reading of each other.
 - 4. Tolerances for critical applications may be tighter.
- D. Sensors Without Transmitters - Standard Application
 - 1. Make a reading with a calibrated test instrument within 6 inches of the site sensor.
 - 2. Verify that the sensor reading, via the permanent thermostat, gauge or building automation system, is within the tolerances in the table below of the instrument-measured value.
 - 3. If not, install offset, calibrate or replace sensor.
- E. Sensors With Transmitters - Standard Application.
 - 1. Disconnect sensor.
 - 2. Connect a signal generator in place of sensor.
 - 3. Connect ammeter in series between transmitter and building automation system control panel.
 - 4. Using manufacturer's resistance-temperature data, simulate minimum desired temperature.
 - 5. Adjust transmitter potentiometer zero until 4 mA is read by the ammeter.
 - 6. Repeat for the maximum temperature matching 20 mA to the potentiometer span or maximum and verify at the building automation system.
 - 7. Record all values and recalibrate controller as necessary to comply with specified control ramps, reset schedules, proportional relationship, reset relationship and P/I reaction.
 - 8. Reconnect sensor.
 - 9. Make a reading with a calibrated test instrument within 6 inches of the site sensor.
 - 10. Verify that the sensor reading, via the permanent thermostat, gauge or building automation system, is within the tolerances in the table below of the instrument-measured value.
 - 11. If not, replace sensor and repeat.
 - 12. For pressure sensors, perform a similar process with a suitable signal generator.
- F. Sensor Tolerances for Standard Applications: Plus/minus the following maximums:

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1. Watthour, Voltage, Amperage: 1 percent of design.
 2. Pressure, Air, Water, Gas: 3 percent of design.
 3. Air Temperatures (Outside Air, Space Air, Duct Air): 0.4 degrees F.
 4. Relative Humidity: 4 percent of design.
 5. Barometric Pressure: 0.1 inch of Hg.
 6. Flow Rate, Air: 10 percent of design.
 7. Flow Rate, Water: 4 percent of design.
 8. AHU Wet Bulb and Dew Point: 2.0 degrees F.
- G. Critical Applications: For some applications more rigorous calibration techniques may be required for selected sensors. Describe any such methods used on an attached sheet.
- H. Valve/Damper Stroke Setup and Check:
1. For all valve/damper actuator positions checked, verify the actual position against the control system readout.
 2. Set pump/fan to normal operating mode.
 3. Command valve/damper closed; visually verify that valve/damper is closed and adjust output zero signal as required.
 4. Command valve/damper to open; verify position is full open and adjust output signal as required.
 5. Command valve/damper to a few intermediate positions.
 6. If actual valve/damper position does not reasonably correspond, replace actuator or add pilot positioner (for pneumatics).
- I. Isolation Valve or System Valve Leak Check: For valves not associated with coils.
1. With full pressure in the system, command valve closed.
 2. Use an ultra-sonic flow meter to detect flow or leakage.

3.6 TEST PROCEDURES – GENERAL

- A. Provide skilled technicians to execute starting of equipment and to execute the Functional Tests. Ensure that they are available and present during the agreed upon schedules and for sufficient duration to complete the necessary tests, adjustments and problem-solving.
- B. Provide all necessary materials and system modifications required to produce the flows, pressures, temperatures, and conditions necessary to execute the test according to the specified conditions. At completion of the test, return all affected equipment and systems to their pre-test condition.
- C. Sampling: Where Functional Testing of fewer than the total number of multiple identical or near-identical items is explicitly permitted, perform sampling as follows:
1. Identical Units: Defined as units with same application and sequence of operation; only minor size or capacity difference.
 2. Sampling is not allowed for:
 - a. Major equipment.

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- b. Life-safety-critical equipment.
 - c. Pre-functional Checklist execution.
 3. XX = the percent of the group of identical equipment to be included in each sample; defined for specific type of equipment.
 4. YY = the percent of the sample that if failed will require another sample to be tested; defined for specific type of equipment.
 5. Randomly test at least XX percent of each group of identical equipment, but not less than three units. This constitutes the "first sample."
 6. If YY percent of the units in the first sample fail, test another XX percent of the remaining identical units.
 7. If YY percent of the units in the second sample fail, test all remaining identical units.
 8. If frequent failures occur, resulting in more troubleshooting than testing, the Commissioning Authority may stop the testing and require Contractor to perform and document a checkout of the remaining units prior to continuing testing.
- D. Manual Testing: Use hand-held instruments, immediate control system readouts, or direct observation to verify performance (contrasted to analyzing monitored data taken over time to make the "observation").
- E. Simulating Conditions: Artificially create the necessary condition for the purpose of testing the response of a system; for example, apply hot air to a space sensor using a hair dryer to see the response in a VAV box.
- F. Simulating Signals: Disconnect the sensor and use a signal generator to send an amperage, resistance or pressure to the transducer and control system to simulate the sensor value.
- G. Over-Writing Values: Change the sensor value known to the control system in the control system to see the response of the system; for example, change the outside air temperature value from 50 degrees F to 75 degrees F to verify economizer operation.
- H. Indirect Indicators: Remote indicators of a response or condition, such as a reading from a control system screen reporting a damper to be 100 percent closed, are considered indirect indicators.
- I. Monitoring: Record parameters (flow, current, status, pressure, etc.) of equipment operation using dataloggers or the trending capabilities of the relevant control systems, where monitoring of specific points is called for in Functional Test Procedures:
1. All points that are monitored by the relevant control system shall be trended by Contractor; at the Commissioning Authority's request, Contractor shall trend up to 20 percent more points than specified at no extra charge.
 2. Other points will be monitored by the Commissioning Authority using dataloggers.
 3. At the option of the Commissioning Authority, some control system monitoring may be replaced with datalogger monitoring.

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4. Provide hard copies of monitored data in columnar format with time down left column and at least 5 columns of point values on same page.
5. Graphical output is desirable and is required for all output if the system can produce it.
6. Monitoring may be used to augment manual testing.

3.7 OPERATION AND MAINTENANCE MANUALS

- A. See Section 01 77 00 - Closeout Submittals for additional requirements.
- B. Add design intent documentation furnished by Architect to manuals prior to submission to County.
- C. Submit manuals related to items that were commissioned to Commissioning Authority for review; make changes recommended by Commissioning Authority.
- D. Commissioning Authority will add commissioning records to manuals after submission to County.

- END OF SECTION -

SECTION 01 91 00 - GENERAL COMMISSIONING REQUIRMENTS

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SECTION 02 22 00 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Partial Demolition and removal of components.
 - 2. Demolition and removal of site improvements.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or recycled.
- B. Remove and Salvage: Carefully detach items from existing construction and deliver them to location for proper disposal.
- C. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or recycled.

1.3 MATERIALS OWNERSHIP

- A. Demolished materials shall become Contractor property and shall be removed from site unless indicated to be reused, salvaged, reinstalled or otherwise remain Owner's property.

1.4 SUBMITTALS

- A. Schedule of Vertical Equipment Demolition Activities: Indicate the following:
 - 1. Detailed sequence of demolition and removal work, with starting and ending dates for each activity.
 - 2. Interruption of utility services.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Locations of temporary protection and means of egress.
 - 5. Coordination of Owner's continuing occupancy of buildings and use of premises to ensure uninterrupted Owner's operations.
- B. Inventory:
 - 1. Prior to commencing demolition, submit a list of items scheduled to be removed and salvaged or reused.
 - 2. After Vertical Equipment demolition is complete, submit a list of items that have been removed and salvaged.
- C. Record Drawings: Accurately record and submit actual locations of capped utilities, subsurface obstructions and related details.
 - 1. Identify and accurately locate capped utilities and other subsurface structural, electrical or mechanical conditions.
- D. Copies of permits and notices authorizing Vertical Equipment demolition as may be required by law, including permits to transport and dispose of debris.
- E. Shop Drawings: Drawings required for demolition of existing vertical equipment.

1.5 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Comply with governing regulations before beginning demolition.

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2. Comply with hauling and disposal regulations of authorities having jurisdiction.
3. Obtain required permits from authorities.
4. Conform to applicable regulatory procedures if hazardous or contaminated materials are discovered.

B. Standards: Comply with ANSI A10.6 and NFPA 241.

1.6 PROJECT CONDITIONS

- A. Conduct Vertical Equipment demolition so Owner's operations will not be disrupted.
1. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
 2. Maintain access to existing walkways, exits, and other adjacent occupied or used facilities.
 - a. Do not close or obstruct walkways, exits, or other occupied or used facilities without written permission from authorities having jurisdiction.
- B. Owner assumes no responsibility for equipment and damage to structure during demo work.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
1. Hazardous materials will be removed by Owner before start of the Work.
 2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Consultant and Owner Representative. Hazardous materials will be removed by Owner under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted except as required for recycling.

1.7 COORDINATION

- A. Arrange demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Repair Materials: Use repair materials identical to existing materials. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces and whose installed performance equals or surpasses that of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of demolition required.
- B. Inventory and record the condition of items to be removed and salvaged.
- C. When unanticipated mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element. Promptly submit a written report to Owner Representative.

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- D. Perform an engineering survey of equipment to determine whether removing any element might result in structural deficiency.

3.2 PREPARATION

- A. Removed and Salvaged Items: Comply with the following:
 1. Clean salvaged items of dirt and demolition debris.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items safely for proper disposal.
 5. Protect items during transport and storage.

3.3 PROTECTION

- A. Existing Items to Remain: Protect equipment to remain against damage and soiling during demolition. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated.
 1. Protect existing site improvements, appurtenances, and structures to remain.
 2. Provide temporary barricades and other protection required to prevent injury to people and equipment.
 3. Provide protection to ensure safe passage of people around demolition area.
 4. Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise from occupied portions of adjacent buildings.

3.4 DEMOLITION

- A. General: Conduct demolition indicated using methods required to complete the Work within limitations of governing regulations and as follows:
 1. Do not use cutting torches until work area is cleared of flammable materials. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
 2. Maintain adequate ventilation when using cutting torches.
 3. Perform hazard material testing prior to demolition.
 4. Perform the removal, cutting, drilling, etc., of existing work with extreme care, and using small tools in order not to jeopardize the structural integrity of the building.
 5. Shore existing construction whenever existing supports are removed to allow the installation of new work.
 6. Cease operations immediately if unsafe condition is present. Do not resume operations until directed by Owner Representative.
 7. Rebuild existing work that must be removed to allow the installation of new work as indicated on the Drawings.
 8. Perform cutting of existing concrete and masonry with saws and core drills. Do not use jack-hammers without permission from Owner Representative.
- B. Site Access and Temporary Controls: Conduct equipment demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
- C. Cutting Materials: Cut materials at junctures with construction indicated to remain as follows:
 1. Concrete: Cut concrete full depth using power-driven saw, then remove concrete between saw cuts.
 2. Masonry: Cut masonry using power-driven saw, then remove masonry between saw cuts.

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- D. Recycled Materials:
 - 1. Structural Steel: Dismantle field connections without bending or damaging steel members. Do not use flame-cutting torches unless otherwise authorized by Consultant and acceptable by authorities having jurisdiction.
 - 2. Equipment: Disconnect equipment at nearest fitting connection to services. Remove as whole units, complete with controls.
 - 3. Existing Interior Piping: Cap at floor level as indicated.
 - 4. Wiring Ducts: Disassemble into unit lengths and remove plug-in and disconnecting devices.

3.5 SELECTIVE INTERIOR DEMOLITION

- A. Selectively demolish and remove items and materials from the interior of buildings or portions of buildings as indicated.
- B. Items, materials or portions of the interior of the buildings that are designated to remain intact shall be protected and carefully worked around during the demolition work.
- C. Damp mop hard surface floors in work area daily to minimize tracking of contaminants from work area.

3.6 REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by demolition operations.
- B. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
- C. Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

3.7 RECYCLING DEMOLISHED MATERIALS

- A. General: Separate recyclable demolished materials from other demolished materials to the maximum extent possible. Separate recyclable materials by type.
 - 1. Provide containers or other storage method approved by Owner Representative for controlling recyclable materials until they are removed from Project site.
 - 2. Stockpile processed materials on-site without intermixing with other materials.
 - 3. Transport recyclable materials off Owner's property and legally dispose of them.
- B. Material Recycling:
 - 1. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs.
 - 2. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinkler heads, and other components by type and size.
 - 3. Lighting Fixtures: Separate lamps by type and protect from breakage.
 - 4. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panel boards, circuit breakers, and other devices by type.
 - 5. Conduit: Reduce conduit to straight lengths and store by type and size.

3.8 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.

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2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.9 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing before demolition operations began.

END OF SECTION 02 22 00

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. General provisions of the Contract, including General and Supplementary Conditions, and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The scope of work consists of the modernization of one (1) 4000 lb. capacity, 300 fpm, 6-stop traction passenger elevator and one (1) 3500 lb. capacity, 200 fpm, 4-stop traction passenger elevator. While specifications address requirements for standards, it is of utmost importance that all existing elevator equipment retained during the modernization is made to operate as new, tested, warranted and guaranteed as if new.
- B. The Contractor is to ensure that all work is performed in accordance with the requirements of local codes and regulations, which govern the requirements of the work specified. All equipment, design, clearances, construction, operation and tests are required to be in accordance to the adopted ASME17.1 and all pertinent codes and regulations required for compliance with codes being enforced by the State of California Department of Industrial Regulations. The Contractor is required to perform required field surveys in addition to providing all engineering, labor, materials, storage, tools, equipment, supervision and transportation in order to fulfill the requirements for design, engineering, fabrication, and installation of the all elevator equipment in a complete first class manner and in accordance with the requirements of the contract documents.
- C. Whenever a reference is made to a part of the equipment being provided in a singular number, it applies to as many such items that may be required to provide a complete installation.
- D. Any equipment not specifically identified within the contract documents but that is essential to the installation and operation of the equipment specified herein is to be provided by the Contractor as if the same was identified in the specification.
- E. Specifications indicate the arrangement of the elevator work to be provided. The Contractor is to carefully review these documents along with field conditions, as the Contractor will be responsible for the proper fitting and installation of the equipment specified. Should a conflict exist the Contractor is required to submit details of such conflict prior to the submission of the bid proposal. There will be no departures from the contract documents without prior written approval.
- F. The Contractor is responsible to make provisions for all transportation, storage, handling, receiving, hoisting and removal of equipment from the project property.
- G. The Contractor shall perform all demolition of the equipment and to provide required cutting, alterations and removal as may be required to accommodate the installation of the equipment specified.
- H. The Contractor shall comply with all requirements of the NFPA Code. The Contractor shall provide a fire watch in the area of all burning and welding for a minimum of two (2) hours after the completion of the activity. The Contractor must obtain written permission of the Owner prior to commencing with any burning or welding.

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- I. Any damage to the existing structure and finishes incurred during the performance of this work will be the responsibility of the Contractor to restore in a manner that meets with the Owner's approval.
- J. The Contractor is responsible for keeping the project premises clean at all times during the performance of the work. All removed and demolished equipment must be removed from the project premises on a continual basis.
- K. Prior to the removal of any equipment to be replaced within the scope of the contract documents the owner shall identify and tag any components that the owner requires to be salvaged. The Contractor shall carefully disassemble, disconnect or otherwise remove the component in a manner that ensures the integrity of the salvaged component. The Contractor shall deliver the salvaged component to location within the building as directed by the owner.
- L. All equipment is to be delivered in the manufacturer's original unopened protective packaging. Contractor is responsible to provide warehousing as required to accommodate all equipment that will be manufactured for this project. Warehousing is to be fully insured and bonded. Ensure that storage provides for the prevention of physical damage of the elevator equipment. Provisions are to be in place for access as may be deemed required by the Owner.
- M. Mandatory warehouse inspection – The existing elevators will not be released to the contractor without verification by the Owner's Representative that all material required to perform the work specified in the contract documents is located in the Contractor's warehouse, specifically labeled for this project, and free from any physical damage readily evident by visual inspection. Upon successful completion of the warehouse inspection, the Contractor will be permitted to remove the elevator from public use.
- N. In addition to providing required protection of stored material, the Contractor is required to fully protect the elevator equipment and hoistway at all times during the performance of modernization program. Provide and maintain required barricades noted in specifications.
- O. The Owner is not responsible for materials, equipment or tools of the Contractor and will not be liable for any loss or damage thereto.
- P. Contractor is to provide any and all information as required for the appropriate coordination of work to be performed by other trades. Address any possible impacts on the installation schedule.
- Q. Completion of the elevator work requires of the Contractor to have the equipment completely inspected in accordance with the specifications in order to demonstrate that the equipment, as installed, conforms to the specifications and code requirements. All labor, tools and equipment necessary to conduct the onsite inspections and testing are the responsibility of the Contractor. The elevator will be inspected by the Owner's Representative prior to the State of California Elevator Inspection Division Inspection. All means will be provided by the contractor to assist Owner Representative Inspection including manpower, tools and equipment.
- R. The Contractor has no advertising privileges related to this project unless specific written permission is obtained from the Owner. Contractor is required to maintain the work area free from any and all posters, signs and decorations. Contractor's name, trademarks, logos or other identifying symbols are not to appear on any surface visible to the general public.
- S. Contractor is responsible for the safety of his workers and any occupants for the duration of the project and as a minimum the Contractor must adhere to OSHA Standards. Contractor

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is required to submit for approval a safety plan that illustrates the standards and procedures to be adhered to throughout this project.

- T. Related Specified Work Performed by Contractor and other Trades:
1. Wire from disconnects to the elevator control panels is the responsibility of the contractor.
 2. Bevel any cants or setbacks required on side or rear walls and beams that project four (4) or more inches.
 3. Cutting and patching of existing walls to facilitate the installation of signal and operating devices as applicable.
 4. Cutting and Patching of existing walls or ceilings to facilitate the installation of elevator equipment.
 5. Contractor is responsible for providing construction containment to maintain air quality and to contain construction dust and debris transmission outside of work area as required by Owner.
 6. Fire safe all penetrations in the elevator hoistway that currently exist and those that may be created during the course work.
 7. Upgrade lighting in all machinery spaces were indicated in the contract documents. All existing lighting fixtures are to be cleaned and lamped to new condition. Minimum 19-foot candles shall be maintained.
 8. Modify hoistway and machine room ventilation where necessary to meet current code requirements.
 9. Painting of all areas indicated; provide paint submittals and properly store paint and other hazardous material in proper on-site flame proof cabinet.
 10. Contractor is responsible for all work associated in completion and Final Acceptance for vertical transportation and other trades.
 11. Add additional portable car top lighting.
 12. Add car top safety railing.

1.3 REFERENCES

- A. Applicable Codes and Standards:
1. All codes and standards adopted by the State of California and Authorities Having Jurisdiction in affect at the time of permitting.

1.4 DEFINITIONS

- A. The following definitions apply to work of this Section:
1. Provide: to furnish and install, complete for safe operation, unless specifically indicated otherwise.
 2. Install: to erect, mount and connect complete with related accessories.
 3. Supply: to purchase, procure, acquire and deliver complete with related accessories.
 4. Work: labor and materials required for proper and complete installation.
 5. Wiring: raceway, fittings, wire, boxes, and related items.
 6. Concealed: embedded in masonry or other construction, installed in furred spaces, within double partitions or hung ceilings, in trenches, in crawl spaces or in enclosures.
 7. Exposed: not installed underground or concealed as defined above.
 8. Indicated, shown or noted: as indicated, shown or noted on Drawings or as specified.
 9. Similar, or equal: of base bid manufacturer, equal in materials, weight, size, design and efficiency of specified product, conforming to acceptable manufacturers.
 10. Owner: County of San Mateo

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11. Manager: County of San Mateo
Owner's Representative: Consultant or any other designee tasked with acting on behalf of the Owner.
12. Reviewed, satisfactory, accepted, or directed: as reviewed, satisfactory, accepted or directed, by or to Owner.

1.5 SUBMITTALS

- A. Shop Drawings and Samples: Provide Two (2) complete sets of shop drawings. Include layouts of pits, machine rooms, power and heat data and required clearances.
 1. Provide shop drawings and descriptive literature/catalog cuts of all equipment and components.
 2. Coordination information meeting electrical requirements.
 3. Specifications indicate the general arrangement of the elevator work.
 4. Contractor shall carefully review this documentation along with field conditions and to be responsible for the proper fitting of the equipment and material indicated.

- B. Owner/Service Manuals: Prior to installation, Contractor shall submit two (2) sets of operation and maintenance manuals for approval. After Owner/Owner's Representative and prior to beginning of acceptance test two (2) sets in hard copy and one (1) set in electronic format of the approved manuals shall be provided by the Contractor. The manuals shall include the following:
 1. Equipment and components, descriptive literature.
 2. Performance data, model number.
 3. Installation instructions.
 4. Operating instructions.
 5. Maintenance and repair instructions.
 6. Troubleshooting techniques.
 7. Spare parts lists and current price list.
 8. Lubrication instructions.
 9. Detailed, record and as-built layout drawings.
 10. Detailed, as-built, one line, wiring diagrams. Provide one (1) complete set per manual.
 11. Field test reports.
 12. Complete set of contract software.
 13. Twelve (12) keys for each new key-operated device that is provided.
 14. Diagnostic tools configured to perform at all levels.
 15. The contractor will provide certification, in writing and signed by an officer of the organization, that the Owner of the elevator shall be provided with copies of any and all information, correspondence, bulletins, newsletters, manuals, techniques, procedures, drawings, sketches and any other documents related to maintenance, safety, operations, design changes, modifications, retrofits, etc., which relate to any part, component, equipment, system, subsystem or material and services applicable to the elevator provided.
 16. The required items in the above mentioned certification shall be provided as it pertains to the original installation and for a period of ten (10) years after final acceptance of the elevator.
 17. The reference material shall be provided within thirty (30) days of publication or internal distribution by the elevator manufacturer. The material, even if labeled PROPRIETARY, shall be delivered to the Owner without prejudice or delay and at no additional cost.
 18. The entire manual shall also be provided in electronic format on CD-ROM.

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- C. Machine Room Prints: Provide complete sets of "as- built" field wiring and straight-line wiring diagrams showing all electrical circuits in the hoistway as well as the machine room. These diagrams shall be laminated and provided in the elevator machine room as directed.

1.6 QUALITY ASSURANCE

- A. Quality and gauges of materials:
 - 1. New, best of their respective kinds, free from defects.
 - 2. Materials, equipment of similar application; same manufacturer, except as noted.
 - 3. Gauges as noted.

1.7 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Ship in original crated sections of a size to permit passage through available space.
- B. Obtain approval and schedule delivery of material to meet Owner's requirements.
- C. Storage of equipment and materials shall be coordinated with Owner.
- D. Removal of Rubbish and Existing Equipment
 - 1. On a scheduled basis the Contractor shall remove from the job site all rubbish generated in performing work specified in the contract documents.
 - 2. Any component of the existing elevator plant that is not reused under the scope of work or is not identified by the owner as salvage and delivered to them as directed shall become the property of the Contractor and as such shall be removed from the premises at the Contractor's sole expense.
 - 3. The Contractor agrees to dispose of the aforementioned equipment and rubbish in accordance with any and all applicable Federal, State and municipal environmental regulations. The Contractor further accepts all liability that may result from handling and/or disposing of said material. Documentation of proper disposal is to be provided to the Owner.

1.8 WARRANTY

- A. Material and workmanship of installation shall comply in every respect with Contract Documents. Correct defective material or workmanship which develops within 12 months from date of final acceptance of work to satisfaction of the Owner at no additional cost, unless due to ordinary wear and tear, or improper use or care by the Owner.
- B. Defective is defined, but not limited to; operation or control system failures, car performance below required minimum, excessive wear, unusual deterioration or aging of materials or finishes, unsafe conditions, need for excessive maintenance, abnormal noise or vibration, and similar unsatisfactory conditions.
- C. Make modifications, requirements, adjustments and improvements to meet performance requirements in Parts 2 and 3.

1.9 INTERIM AND WARRANTY MAINTENANCE SERVICE

- A. All elevators identified in Section 1.2 A shall be maintained by the Vertical Transportation contractor upon receipt of the NTP thru the expiration of the warranty of the last elevator modernized. Maintenance shall include periodic monthly inspection, cleaning, lubrication and adjustment, in compliance with the contractors published Maintenance Control Program. Any testing, including monthly fire service test and ASME A17.2 periodic requirements that become due during the interim and warranty maintenance period are to

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be included at no additional cost to the owner. Provide 24hr callback service to the owner with a response time not to exceed one (1) hour during normal working hours. Normal working hours are from 8:00AM to 4:30PM Monday through Friday.

- B. Diagnostic Tools: At the completion of the work as specified, the Contractor shall provide items listed. These items shall become the Owner's property.
 - 1. One (1) complete set of all diagnostic tools and equipment required for the complete maintenance of all aspects of the control and dispatch system and solid-state motor drive units. The diagnostic system shall be an integral part of the controller and provide user-friendly interaction between the serviceman and the controls. All such systems shall be free from secret codes and decaying circuits that must be periodically reprogrammed by the manufacturer. Diagnostic equipment shall be permanently mounted in the control cabinet or secured in a lock cabinet provided by the contractor and located within the elevator machine room.
 - 2. A list of vendors for all parts used in the installation.
- C. Training to Owner/Service Company:
 - 1. See Section 3.3. – Instructions and Demonstration to Owner

1.10 ELECTRIC SERVICE

- A. Power: 480 volts, 3 phase, 60 hertz. (To be verified by Contractor)
- B. Lighting: 110 volts, 1 phase, 60 hertz. (To be verified by Contractor)

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Product of individuals, firms or corporations regularly engaged in modernizing elevators comparable with this contract and in satisfactory operation for a period of not less than five years. Contractor must have an office within one (1) hour drive of the Project. There shall be no logos or contractor/manufacturer's identification or nameplates within the elevator car or hallways.
- B. Should a conflict exist between the specifications or field conditions, the Contractor shall submit details of such conflicts prior to the bid proposal submission. No departures will be allowed without prior written approval. Any substitutions to the specified product must be presented prior to the submission of a bid proposal and with the understanding that no substitutions will be allowed after contract award.

2.2 OUTLINE OF EQUIPMENT

- A. **Elevator #3**
 - 1. Elevator Use: Passenger
 - 2. Identification: Elevator #3
 - 3. Capacity: 4,000 pounds
 - 4. Contract Speed: 300 fpm
 - 5. Travel: See Drawings +/- VIF
 - 6. Number of Stops: Six (6)
 - 7. Number of Openings: Six (6)
 - 8. Machine Location: Overhead
 - 9. Machine Type: Geared Traction
Provide New-Gearless ACPM by Hollister
Whitney or Approved Equal

SECTION 14 21 00 – TRACTION ELEVATOR MODERNIZATION – ELEVATOR #3 AND #7

| | | |
|-----|---------------------------|--|
| 10. | Type of Drive: | Provide New-- VVVF Drive |
| 11. | Controller: | Otis Provide New - Micro-processor-based logic |
| 12. | Landing System: | Provide New |
| 13. | Governor: | Provide New by Hollister Whitney or Approved Equal |
| 14. | Platform Size: | Reuse Existing |
| 15. | Car/Hoistway Door Size: | 42" width X 84" height |
| 16. | Car/Hoistway Door Type: | Single Speed Center Opening |
| 17. | Door Guide Assembly: | New – SEES Enforcers or approved equal |
| 18. | Entrance Frames/Doors: | Retain existing |
| 19. | Door Operation: | New – Linear High Speed or Approved equal |
| 20. | Door Reversal Device: | New - Panachrome 3D Light Screen by Janus Elevator Products or approved equal |
| 21. | Car/CWT Roller Guide: | New—Car and CWT by ELSCO or Approved equal |
| 22. | CWT Assembly: | Provide New |
| 23. | Guide Rails: | Reuse – clean, paint, realign, tighten connection |
| 24. | Buffers: | Provide New |
| 25. | Deflector Sheave | Provide New |
| 26. | Cab Enclosure: | Reuse |
| 27. | Cab Interior: | See Section 14 27 00 – Cab Interiors |
| 28. | Cab Flooring: | Pirelli Studway Tiles – EcoFloors EB-51 |
| 29. | Main Car Operating Panel: | New - Full Return Swing Panel w/ Keyed Security Operation |
| 30. | Car Position Indicator: | New - Digital |
| 31. | Hall Call Stations: | New – Flush Mount – Security Keyed Operation |
| 32. | Hall Position Indicator: | New – Flush Mount Digital w/ lanterns at each landing |
| 33. | Hall Lanterns | New – Flush Mount Digital w/ hall position indicator at each landing |
| 34. | Car Direction Indicator: | New - Digital |
| 35. | Communication System: | New – Hands Free- ADA -Code Compliant |
| 36. | Additional Features: | <ul style="list-style-type: none"> a. Emergency LED cab lighting – Provide New b. Hoistway access control – Provide New c. Provide Tamper resistant fasteners at all signal fixtures d. Upgrade existing Fire Control per code e. New – Elevator emergency power indication per code f. Wiring for emergency generator signaling |

B. Elevator #7

| | | |
|----|---------------------|---|
| 1. | Elevator Use: | Passenger |
| 2. | Identification: | Elevator #7 |
| 3. | Capacity: | 3,500 pounds |
| 4. | Contract Speed: | 200 fpm |
| 5. | Travel: | See Drawings +/- VIF |
| 6. | Number of Stops: | Four (4) |
| 7. | Number of Openings: | Four (4) |
| 8. | Machine Location: | Overhead |
| 9. | Machine Type: | Geared Traction Provide New-Gearless ACPM by Hollister Whitney or Approved Equal |

SECTION 14 21 00 – TRACTION ELEVATOR MODERNIZATION – ELEVATOR #3 AND #7

| | | |
|-----|---------------------------|--|
| 10. | Type of Drive: | Provide New-- VVVF Drive |
| 11. | Controller: | Relay Logic Provide New - Micro-processor-based logic |
| 12. | Landing System: | Provide New |
| 13. | Governor: | Provide New by Hollister Whitney or Approved Equal |
| 14. | Platform Size: | See Drawings |
| 15. | Car/Hoistway Door Size: | 46" width X 84" height |
| 16. | Car/Hoistway Door Type: | Two-Speed Side Slide |
| 17. | Door Guide Assembly: | New – SEES Enforcers or approved equal |
| 18. | Entrance Frames/Doors: | Retain existing |
| 19. | Door Operation: | New – Linear High Speed or Approved equal |
| 20. | Door Reversal Device: | New - Panachrome 3D Light Screen by Janus Elevator Products or approved equal |
| 21. | Car/CWT Roller Guide: | New—Car and CWT by ELSCO or Approved equal |
| 22. | Guide Rails: | Reuse – clean, paint, realign, tighten connection |
| 23. | Buffers: | Provide New |
| 24. | Deflector Sheave: | Provide New |
| 25. | Cab Enclosure: | Provide New |
| 26. | Cab Interior: | See Section 14 27 00 – Cab Interiors |
| 27. | Cab Flooring: | Pirelli Studway Tiles – EcoFloors EB-51 |
| 28. | Main Car Operating Panel: | New - Full Return Swing Panel w/ Keyed Security Operation |
| 29. | Car Position Indicator: | New - Digital |
| 30. | Hall Call Stations: | New – Flush Mount – Security Keyed Operation |
| 31. | Hall Position Indicator: | New – Flush Mount Digital w/ lanterns at each landing |
| 32. | Hall Lanterns | New – Flush Mount Digital w/ hall position indicator at each landing |
| 33. | Car Direction Indicator: | New - Digital |
| 34. | Communication System: | New – Hands Free- ADA -Code Compliant |
| 35. | Additional Features: | <ul style="list-style-type: none"> a. Emergency LED cab lighting – New b. Hoistway access control – New c. Tamper resistant fasteners at all signal fixtures d. Upgrade existing Fire Control per code e. New – Elevator Emergency Power Indication per code Wiring for emergency generator signaling |

2.3 MACHINE ROOM EQUIPMENT

- A. The hoist machine for the elevators shall be replaced with new Gearless Machine ACPM by Hollister Whitney or Approved Equal. The contractor is responsible for proper field measurement, engineering, fitting and installation of new machine.
- B. The machine shall be of sufficient capacity to operate the elevator with rated load at rated speed without overheating. The motor will be tested as specified in this Specification. Insulation of all windings shall be impregnated and baked to prevent absorption of moisture and oil. The insulation resistance between motor frame and windings shall not be less than one Mega-ohm. The motor windings shall stand a dielectric test of twice the normal voltage plus 1000 RMS volts f 60 Hertz alternating current for one minute. Insulation shall be Class F or better.

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- C. AC permanent magnet multi-phase motor shall be provided and designed for use with AC Flux Vector drives capable of drive for PM motors with high torque and high efficiency. Mechanical construction shall be with cast iron frame & brackets, forged steel shaft, re-greaseable tapered roller drive bearing(s) on drive sheave end.
- D. Motors shall be CSA listed and have appropriate CSA marking on the motor nameplate.
- E. The motor will be supplied with a motor mounted shaft driven absolute optical encoder rated at 2048 ppr or greater. Motor duty shall be 60 min. at name plate rating. Class A Motor temperature rise at nameplate rating shall be:
 - 1. TENV = 55° C by thermometer
 - 2. Maximum room ambient = 40° C
- F. Motor insulation system shall be a minimum class F. Stator winding made of copper magnet wire. Insulation processing shall include minimum of 2 dips and bakes in polyester varnish.
- G. Bearings: Bearing mounting shall be such as to insure accurate bearing alignment. Bearings and lubricant reservoirs shall be dust-tight and shall incorporate effective lubricant seals or other means to prevent lubricant leakage. Babbitt bearings shall not be permitted. Ball and roller bearings shall be arranged for grease lubrication and be fitted with grease gun connection and drain plugs.
- H. Machine Brake: Provide machine with a spring applied and electrically released electromechanical brake and must be so designed as to be effective to the extent of stopping the car during emergency stop and holding the car under all conditions of loading or operation. Motors shall be CSA listed and have appropriate CSA marking on the motor nameplate. Swivel type brake shoes shall be applied to the braking surface simultaneously and with equal pressure by means of helical compression springs. Design brake electromagnet for quick release to provide smooth and gradual application of the brake shoes. Each brake arm is to be individually controlled and able to hold 125% of rated capacity. The brake drum must have the wearing surface and edge of flange turned smooth, and the wearing surface must run true within a minimum variation of .005 inch. Allowable clearance shall be a minimum of 1/2 inch between the brake stand assembly and traction drive sheave to prevent any contact with the brake stand or any part thereof. Brake shoes are to be lined with non-asbestos bonded type linings. Brake plunger rod shall be polished steel with surface free of machine marks. The brakes shall operate smoothly and quietly.
- I. The bedplate of the machine will be isolated from the building structure by means of elastomer pads properly loaded for static and dynamic forces developed by the machine. The type and number of pads will be as required to limit objectionable structure borne noise transmission to occupied spaces. Adjustable mechanical stops will be incorporated in the bedplate design to prevent excessive rocking that would cause the elevator to attempt to re-level. Bedplate to be cleaned and painted with black enamel.
- J. Provide machine and hoist cable guards of not less than 14 gauge sheet steel at the front and rear of each machine. Guards will be installed in such a manner so as to cover all pinch points. Guards to be painted safety yellow.
- K. Machines to be provided with rope guards near the drive sheave to ensure ropes stay inside the rope grooves on the machine drive sheave. Guards to be painted safety yellow.
- L. The machine deflector sheaves shall be new.
- M. If the installation requires an up-stand or sub base so secondary or deflector sheave is above the machine room floor, the secondary or deflector sheave will have grease

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lubricated bearings and will be mounted on the underside of the machine bedplate, so that the sheave assembly does not contact the building steel or machine beams under all loading conditions or running conditions. All clearance requirements shall be met on machine equipment.

- N. New hoist cables are to be provided. Provide cables of proper construction to match new machine drive and related sheaves. Properly tension new hoist cables at completion of installation and again at six weeks and six months after installation. New hoist cable guards are to be provided at side of the hoisting machine sheave to prevent accidental contact with the hoisting ropes. All guards shall be safety yellow and painted from the manufacture.
- O. Controller: The elevator controller shall use microprocessor-based logic and shall comply with all applicable elevator and electric safety codes.
1. The elevator controller shall support an interface for communication and interaction via a separate application program running on a Windows PC. This application shall communicate with the controller and allow the user to access controller configuration parameters, view real-time elevator status information, initiate and facilitate setup and adjustment procedures, and provide advanced troubleshooting capabilities. The PC application shall be designed specifically for elevator applications and shall graphically and dynamically display information from the controller.
 2. A PC application shall provide facilities to manage elevator controller configuration parameters. The user shall be able to manage and manipulate parameters including:
 - a. Retrieve from the elevator controller and view/edit
 - b. Retrieve from the elevator controller and save to a file on the PC
 - c. Retrieve from the PC, view/edit, and download to the elevator controller
 - d. Manage separate configurations for multiple elevator controllers

The user shall be able to select specific groups or subsets of parameters to send or retrieve from the elevator controller.
 3. A PC application display shall provide motor field (where applicable), armature and brake voltages, armature current, intended and actual car speeds and hoist machine RPM. The PC diagnostics and adjustment display shall include online context-sensitive parameter descriptions and help information for fault troubleshooting.
 4. The controller shall maintain an event log that records noteworthy events or faults. They shall be displayed in chronological order and time stamped for analysis or review. Data displayed shall include the type of event or fault, the date and time it occurred, and the position of the car and status of various flags at the time of the occurrence. The event log shall be able to be saved and reviewed offline via the PC application.
 5. Communication between the elevator controller and the PC application shall be via a standard 100 base T TCP/IP network connection. The elevator controller shall be compatible with standard networking equipment (cables, hubs, switches and routers etc.).
 6. A PC application and elevator controller shall support remote connection via the internet (if available). The elevator controller shall support up to four simultaneous PC connections (remote and/or local). A mechanism shall be provided to prevent the unauthorized alteration of elevator configuration parameters.
 7. A controller test switch shall be provided. In the test position, this switch shall enable independent operation of the elevator, with the door open function deactivated, for purposes of adjustment and testing. The elevator shall not

- respond to hall calls and shall not interfere with any other car in a duplex or group installation.
8. Switches for controller inspection, enable, and up and down shall be provided to place the elevator on inspection operation and allow the user to move the car from the machine room. The cartop inspection switch shall render the controller inspection switch inoperative.
 9. The elevator control and safety functions shall be part of an integrated system designed for ease of use, with diagnostics and parameter adjustments accessible through a common user interface.
 10. The brake supply shall be capable of providing at least four independently adjustable values of output voltage in order to provide smooth lifting, holding and releveling. These values shall be adjusted via computer parameters. Manual adjustment of resistor values shall not be required.
 11. The elevator controller shall provide auto-tuning of the brake control values.
 12. The controller shall provide logic to detect a failure of brake voltage to properly decay and relax a picked brake to hold/cooling position.
 13. The brake control system shall include circuitry to detect insufficient brake current. This failure shall cause the elevator to be removed from service at the next stop and remain out of service until the condition is corrected.
 14. For gearless applications, the drive control system shall use an optimized speed profile in a dual-nested loop feedback system based on car position and speed. A speed feedback device (tachometer or encoder) shall permit continuous comparison of motor speed with the calculated speed profile to provide accurate control of acceleration and deceleration—right up to and including the final stop, regardless of direction of travel or load in the car. Drive subsystem control parameters shall be digitally adjustable through software and shall be stored in non-volatile FLASH memory.
 15. The system shall provide motor field current sensing which shall shut down the elevator if insufficient motor field current is detected.
 16. The system shall provide adaptive gain parameters for optimum control of elevator speed throughout its travel.
 17. The system shall use a device to establish car position to an accuracy of 0.1875" (4.76 mm) or better, using a quadrature signal operating over the entire length of the hoistway.
 18. The system shall use an automatic two-way leveling device to control the leveling of the car to within 0.25" (6.35 mm) or better above or below the landing sill. Overtravel, undertravel, or rope stretch shall be compensated for and the car brought level to the landing.
 19. A system for pre-torquing the hoist motor shall be made available to ensure consistently smooth starts. An electronic load sensor shall be required to implement the pre-torquing feature.
 20. Pre-start sequencing shall be provided to safely energize the machine prior to the doors closing on a departing elevator, thus consistently improving floor-to-floor travel times.
 21. Door pre-opening as the car approaches a landing shall be field adjustable to begin a maximum of six inches from level-at-floor position.
- P. Drive:
1. The control system shall utilize a flux vector AC drive.
 2. The flux vector drive shall be capable of producing full torque at zero speed and shall not require DC injection braking in order to control car deceleration.
 3. The drive shall be capable of controlling geared and gearless machines, induction and permanent magnet motors. The drive shall also work with different types of encoders such as incremental, sine/cosine, and Hiperface.
 4. The drive shall have built-in motor overload protection. External overload is not required.

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5. The drive shall have the capability of being adjusted or programmed to achieve the required motor voltage, current, and frequency to properly match the characteristics of the AC elevator hoist motor.
 6. The drive shall not create excessive audible noise from the elevator motor.
 7. The drive shall be heavy-duty, capable of delivering sufficient current required to accelerate the elevator to contract speed with rated load. The drive shall provide speed regulation appropriate to the motor type.
 8. A contactor shall be used to disconnect the hoist motor from the output of the drive unit each time the elevator stops. This contactor shall be monitored and the elevator shall not start again if the contactor has not returned to the de-energized position when the elevator stops.
 9. The controller shall provide step less acceleration and deceleration and provide smooth operation at all speeds.
 10. For applications where the building power supply has a “Grounded Leg Delta” configuration, an isolation transformer should be used to minimize noise and prevent any damage to the drive during voltage fluctuations.
- Q. Governor: New governors and governor cables are to be provided for the elevators. The system shall include the governor and a weighted tension sheave. The governor shall be calibrated to operate in accordance with Code requirements and tripping speed shall be set to coincide with the rated speed of the elevator. The pull through on the governor shall be set to work in accordance with the pull through requirements of the safety. The over-speed protective device switch shall operate upon over-speed of the governor. The over-speed switch shall remove power from the driving machine motor and brake before application of safety. The governor shall be tested with the safety and results documented with the inspecting authority. Governor to be provided by Hollister Whitney or Approved Equal.

2.4 OPERATING SYSTEMS

- A. Selective Collective Control: Provide selective collective operation as defined by ASME A17.1.
- B. Independent Service: Provide controls behind a locked panel to remove elevator from normal operation and provide control of the elevator from car buttons only. Car shall travel at contract speed and shall not respond to hall calls.
- C. Car Top Operation: Provide new inspection and maintenance control station mounted on the car top. The station is to include up and down buttons, inspection operation button, and stop switch, GFI duplex outlet, permanently mounted work light and guard along with audible and visual signal to comply with fire service control. Provide an additional portable work light with guard on the cartop.
- D. Firefighter Emergency Operation: Provide operation and equipment per Code requirements. Provide a three-position key switch, marked "RESET-OFF-ON", at the main fire egress lobby. Any additional switches for control panels of alternate recall floors are to be two-position, marked "OFF-ON". The elevator is to be provided with Fireman's Service Phase II operation per code requirements. Elevator Contractor shall provide relays, wiring, and terminal strips to receive signals from emergency ionization detectors.
- E. Emergency Power Operation: An illuminated signal marked “Elevator Emergency Power” shall be provided in the lobby at the designated level to indicate that normal power supply has failed and the emergency or standby power is in effect. The illuminated signal shall be provided.
- F. Emergency LED Car Lighting and Alarm System: Unit shall provide emergency light in car upon failure or interruption of normal car lighting. Emergency lighting unit shall provide a minimum illumination of 0.2 foot-candle at 4 feet above car floor approximately one (1) foot

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in front of car operating panel for not less than 4 hours. Battery shall be 6-volt minimum, sealed rechargeable lead acid or equal. Battery charger shall be capable of restoring battery to full charge within sixteen (16) hours after resumption of normal power. Provide an external means for testing battery, lamps, and alarm bell behind a locked panel.

- G. Other Items:
1. Load Weighing: Provide means for weighing car passenger load. Control system to provide dispatching at main floor in advance of normal intervals when car fills to capacity. Provide hall call by-pass when the car is filled to preset percentage of rated capacity and traveling in down direction. Adjustment range: 10% to 100%.
 2. Anti-Nuisance Feature: If weight in car is not commensurate with number of registered car calls, cancel car calls. Systems employing either load weighing or door protective device for activation of this feature are acceptable.

2.5 OPERATION PERFORMANCE

- A. The control system shall provide smooth acceleration and deceleration with ¼" leveling accuracy at all landings, from no load to full rated load in the elevator, under normal or unloading conditions. The self-leveling shall, within its zone, be entirely automatic and independent of the operating device and shall correct for over-travel and under-travel. The car shall remain at the landing irrespective of load. Clearance between the car sill and the hoistway landing shall not exceed 1 -1/4 inch.
- B. The door open time for elevators is not to be less than 3.0 fps.
- C. The door close time shall be based on the Code requirements with a door delay feature. The door delay is the minimum acceptable time from notification that a car is answering a call (lantern and audible signal) until the doors of the car start to close. Time shall be calculated by the following equation:
1. $T = D / (1.5\text{ft/s})$
 2. T = Total time in seconds.
 3. D = Distance from a point in the lobby sixty (60) inches directly in front of the hall station to the centerline of the door opening.
- D. Car Call: The minimum acceptable time for doors to remain fully open shall not be less than 5 seconds.
- E. The speed of the elevator shall not vary +/- 5% under loading conditions.
- F. The elevator is to be statically and dynamically balanced. With empty car, maximum pressure on any roller guide shall not exceed ten (10) pounds, with the elevator located at any point in the hoistway.
- G. Car Ride Quality
1. Horizontal acceleration within car during all riding and door operating conditions. Not more than 20 mg (geared) peak to peak in the 1 - 10 Hz range.
 2. Acceleration and Deceleration: Smooth constant and not more than 4 feet/second² with an initial ramp between 0.5 and 0.75 second.
 3. Sustained Jerk: Not more than 6 feet/second³.
 4. ISO standard ride quality shall be met.

2.6 HOISTWAY EQUIPMENT

- A. Guide Rails: Car and Counterweight-Planed steel, standard T-sections. Existing guide rails are to be retained. The rails and brackets are to be examined and re-secured as necessary. The machined surfaces of the rails are to be thoroughly cleaned. All rail joints

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shall be filed smooth and the alignment checked and adjusted as necessary to within 1/8" top to bottom and face-to-face. The un-machined portion of the rails are to be cleaned and painted.

- B. Car and Counterweight roller guide assemblies. Provide new ELSCO car and counterweight roller guide assemblies.
- C. Buffer: Car and Counterweight – Provide new.
 - 1. Provide spring return oil type buffers with NEMA switch. The buffers shall comply in all respects with the requirements of the ASME Code. The buffers shall be designed to withstand free-falling loaded car. Stands and pit channels to be painted steel.
 - 2. The buffers shall have been tested by a qualified testing laboratory and approved as complying with the ASME Code. The buffers marking plate shall be permanent and legible indicating the manufacturer's name, identification number and stroke
 - 3. Elevator #3 Only - Provide Working Platform (in elevator pit) for inspection access purposes and in accordance with ASME A17.1. (See Drawing)
- D. Counterweights: Provide New. The entire assembly shall be new including fastenings of all members. The counterweight shall be balanced with the elevator car so that it is equal to the weight of the elevator car plus 40% of the rated car capacity. Additional weights shall be provided and the same shall be held securely in alignment with the rods.
- E. Hoist and Governor Ropes: New - Fasten with adjustable shackles. Provide rope bands or annealing wire to seize rope ends. Tail ends of ropes shall be of equal length and not to exceed 12 inches.
- F. Provide sheave guards for all new overhead sheaves. Sheave guards to be painted safety yellow.
- G. All pit equipment is to be replaced with new.
- H. Elevator #3 - Access shall be provided to service, repair, or replace equipment located on the underside of the elevator platform and buffers. Install Working Platform (See Drawings). Working Platform shall meet AHJ and code requirements.

2.7 SAFETIES

- A. Safeties:
 - 1. Elevator #3 - Retain existing. The safeties are to be cleaned, overhauled and tested with rated load and at contract speed with the results documented with the governing authority. The safeties shall be activated by the speed governor. The safeties shall stop the elevator whenever excessive descending speed is experienced and means shall be provided to cut off power from the motor and apply brake prior to application of the safety. The safeties shall be modified and adjusted as necessary so that its operation complies with Code requirements.
 - 2. Elevator #7 – Provide New. Provide a governor actuated Type B flexible guide clamp mechanical safety device mounted under the car platform and securely bolted to the car sling. The car safety shall be sized for the capacity and speed noted herein.
 - a. When tripped, the safety mechanism shall engage the rails with sufficient force to stop a fully loaded car with an average rate of

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- retardation within the limits specified by the ASME Code for the capacity.
 - b. Install a car safety marking plate of corrosion resistant metal and, in addition to the data required by the ASME Code, indicate the manufacturer's name and manufacturer's catalog designation number for safety.
 - c. Make provisions to release the car safety. In no event shall the safety be released by downward motion of the car. Raising the car to reset the safety shall be allowed.
 - d. Provide an electrical safety plank switch that will interrupt the power to the hoist machine when the safety is set. Resetting the plank switch shall be separate from resetting the safety jaws.
- B. Automatic Terminal Stopping Device: New terminal stopping devices shall be provided at the top and bottom of the elevator hoistway and shall be operated by a fixed cam attached to the elevator. The switches shall be independent of any other stopping device and shall cut off power from the driving machine motor and brake.
- C. Wiring:
 - 1. Conductors: Provide copper insulated wiring with flame retarding and moisture resisting outer cover. Install in galvanized metal wire-ways and raceways. Conductors from shaft riser to door interlocks shall be SF-2 type or equal, maximum operating temperature 392 degrees F. All terminations shall be insulated to maintain integrity of wiring. Flexible conduit may be used for short connections. Provide 10% spare conductors throughout.
 - 2. Traveling Cables: UL labeled fire and moisture resistant outer braid and steel supporting strand. Provide five (5) pairs of shielded communication wires and car lighting circuits. Prevent cables from rubbing or chafing against hoistway or car items.
 - 3. Provide a minimum five (5) pair of shielded, two (2) RG-59 type coaxial.
 - 4. Work Light and Duplex Receptacles: Provide on top and bottom of car with 110volt GFI receptacle and work light with guard. Top of car illumination will be a minimum of 10 foot candles at any location on top of car.
 - 5. Hoist motor leads shall match insulation rating of the motor.

2.8 DOOR AND ENTRANCE EQUIPMENT

- A. Existing entrance frame assemblies are to be retained.
- B. Sills:
 - 1. Elevator #3 - The car and hoistway sills are to match. All car and landing sills are to be replaced with new nickel-silver.
 - 2. Elevator #7 - Elevator landing sills are to be cleaned and retained. All car sills are to be replaced with new nickel-silver.
- C. Each door panel is to be provided with two (2) new guides. These new guides are to be UL labeled and designed to be replaced without removing the door panels.
- D. Existing fascia, dust covers, and hangar covers are to be retained unless required by AHJ to replace. All of this equipment is to be cleaned, painted and inspected. If required, provide reinforcement as necessary or replace those components as deemed necessary. Any components that are missing are to be provided with new. All equipment is then required to be painted. Four (4) inch high numerals designating the appropriate floor shall be stenciled on the hoistway enclosure or hoistway doors.

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1. All surfaces are to be provided in a painted enamel finish and are first to be cleaned of all dirt, grease and oil and then provided with one (1) coat of rust inhibited mineral paint. A filler primer coat is then to be applied. Final painted enamel finish is to be achieved with two (2) applied enamel coats.
- E. New door stops and rubber bumpers shall be mounted to the top and bottom of each strut angle in order to cushion and limit the extreme travel of the door panels. Two (2) minimum.
- F. Provide jamb markings on the sides of each entrance frame and mounted sixty (60) inches from the finish floor if required. Each marking shall be a minimum of two (2) inch high numerals with Braille. Jamb Braille to match existing finishes.
- G. All car and hoistway door equipment, including operators, door tracks, hangers, interlocks, closers and wiring and all related door operating equipment is to be completely removed and replaced.
- H. New electro-mechanical interlocks with appropriate wiring shall be provided at all hoistway entrances. New Hoistway access key-switches are to be provided at top and bottom landings per code and located in the door jambs or in a separate box located adjacent to the entrance frame.
- I. Replace damaged sight guards and astragals.
- J. Retain hoistway door panels.
- K. Replace all car door panels with #4 brushed stainless steel.

2.9 CAR EQUIPMENT

- A. Car Frame and Platforms:
 1. Elevator #3 - Retain existing. All components are to be checked and secured as necessary.
 2. Elevator #7 – Provide new. (See Drawings)
 - a. The car frame and platform shall be made of steel members, with a factor of safety as required by the ASME Code. Car frame and platform shall be welded steel units designed and fabricated in accordance with applicable requirements herein and of the Code. A suitable car frame shall be provided with adequate bracing to support the platform and car enclosure. The buffer striking plate on the underside of the car-frame platform assembly must fully compress the oil buffer mounted in the pit. Provide welded or bolted ASTM 123 steel channel uprights affixed to crosshead and plank channels with welded or bolted bracing members and gusset plates. All components are to be painted steel.
 - b. Platform: The platform assembly is to be painted steel and the sub-flooring is to be provided with two (2) layers of 3/4" marine grade plywood. Cover the underside of the car platform with #26-gauge sheet steel fireproofing.
 - c. Recess passenger platforms to accept 1/4" thick tile with thin set mortar. Tile flooring shall be determined by the Architect.
 - d. Sound isolate the passenger elevator platform. The support frame shall carry rubber pads on which the platform shall rest without any connection to the steel frame.
- B. Toe Guards: Replace existing with new 48" toe guards and paint with black enamel.

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- C. Car Top:
 - 1. Elevator #3 - Clean and paint to new. Remove all dirt, grease and oils. Completely cleaned with heavy duty degreaser. This to include all car top equipment, flex, gutters, crosshead, rollers, etc.
 - 2. Elevator #7 – Provide New Cab Enclosure.
- D. Floor covering: Replace as part of cab allowance.
- E. Door Operator: Provide a high speed, heavy-duty, Solid State AC VVVF Linear electric power door operator to automatically open and close the car and hoistway doors. The doors shall be capable of smooth and quiet operation without slam or shock.
 - 1. Opening speed shall not be less than 3 fps.
 - 2. Hoistway doors shall be automatically closed by an auxiliary closing device if car leaves the landing zone.
 - 3. Differential door timing feature: Provide adjustable timers to vary the time that the doors remain open in response to a car or hall call. The doors shall remain open for one second in response to a car call and five to eight seconds for a hall call. This time shall be reduced to 2 second if the light ray is interrupted. The doors shall remain open as long as passengers are crossing the threshold.
 - 4. Nudging: When doors are prevented from closing for 20 seconds due to failure of the light ray or obstruction, the doors shall close at reduced speed and a buzzer shall sound.
- F. Door Edge Protection: Provide a new Panachrome light curtain door reversal device as manufactured by Janus Elevator Products or approved equal. The Door Reopening Device shall cause both the car and hoistway doors to reverse, should they detect an obstruction in the elevator. The device electrical wiring shall be supplied with quick disconnects terminals to facilitate replacement. The infrared curtain detector shall include the following:
 - 1. A protective infrared detector field delivered as 154 beam light curtain and shall provide a minimum coverage of 1"above the car sill to a height of 70.9".
 - 2. A fail-safe control system to prevent the doors from closing in case of power loss to the detector.
 - 3. A one-piece full door height protective lens cover designed to have a high resistance to water and dust.
 - 4. Light curtain shall illuminate green as the doors are opening, flash red as they start to close and stay red as the doors are moving together.
- G. Car Door Contacts: Electrical contacts shall prevent the operation of the elevator by normal operating devices unless car doors are closed or within tolerances allowed by Code.
- H. Door Clutch: Heavy-duty clutch, linkage arms, drive blocks and pickup rollers or cams to provide positive, smooth, quiet door operation. Design clutch so car doors can be closed, while hoistway doors remain open.
- I. Restricted Opening Device: Restrict opening of car door(s) to a maximum of four (4) inches outside unlocking zone. Restrictor device shall be mechanical design.
- J. Provide top of car railings for safety and to meet code requirements.
- K. Allowance per Passenger Elevator Car Enclosure: See Section 14 27 00 – Cab Interiors

2.10 SIGNALS AND FIXTURES

- A. Provide new signal and operating fixtures as manufactured by Innovation Industries Premier Series or approved equal.

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- B. Provide new emergency power indication as required by code.
- C. Car Operating Return Panels:
 - 1. Provide new car full swing return panels. Panel shall have illuminating buttons. Manufactured by Innovations Industry - Premier Series or approved equal. Owner to choose style and color of illumination.
 - 2. Push-buttons numbered to conform to floors served. Buttons shall be ultra bright LED illumination in yellow, white, red, green or blue as selected to show registration and extinguish when car stops in response to a call. Buttons shall be raised 1/8 inch above the faceplate. Each panel shall include an alarm bell button, DOOR OPEN and DOOR CLOSE button. A keyed operated switch shall be provided for security control and incorporated within the car operating panel. Keyed operated switch shall be a Schlage C-Keyway cylinder, cylinders shall be provided to the County of San Mateo for security keying. Bezels shall be labeled SECURITY.
 - a. All operating controls shall be located no higher than 54" above the car floor and 35" for alarm button. Provide Phase II emergency fire service switch and components behind a locked cabinet door clearly marked "Firefighters Operation" engraved and filled on the cabinet door. Fixtures drawings are to be submitted for approval prior to fabrication. Finish shall match existing. Include the following controls in lockable service cabinet with function and operating positions identified by signage:
 - i) Inspection switch.
 - ii) Light switch.
 - iii) 3-speed exhaust fan switch.
 - iv) Independent service switch.
 - v) Constant pressure test button for battery pack emergency lighting.
 - vi) 120-volt, AC, GFCI protected electrical convenience outlet.
 - b. Braille/Arabic designations shall be die cast and flush with inconspicuous mechanical mounting.
 - i) The plaques shall have numerals and background in a finish selected by the architect/Owner.
 - c. All device fasteners are to be tamper resistant.
 - d. Fireman's Service Phase I & II requirements for the elevator.
 - e. Engrave "Certificate of Operation on file with Management Office" 1/2" inch high lettering.
 - f. Engrave the car operating panels with the following:
 - i) No Smoking. 1/2" inch high lettering.
 - ii) Elevator Number: 1" inch high lettering.
 - iii) Elevator Capacity: 1" inch high lettering
 - iv) LED Emergency lighting in COP
- D. Car Position Indicator: Provide digital type with 3-inch high (maximum) indications within each operating panel. Fixture is to incorporate direction arrows and audible floor passing signal.
- E. Hall position/lantern indicators shall be flush mounted, digital and located at each landing.
- F. Hall Buttons: Provide Innovations Industry Premier Series to match car pushbuttons. Station shall include flush mounted faceplate. Provide code required Firemen's Service key switch and operational instructions at the main lobby. Emergency power indication shall be installed at the main landing. A keyed operated switch shall be provided for security control and incorporated within the hall station. Keyed operated switch shall be a Schlage C-

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Keyway cylinder, cylinders shall be provided to the County of San Mateo for security keying. Bezels shall be labeled SECURITY.

- G. Hall Lanterns: Provide new digital lanterns with incorporated car position indicators manufactured by Innovations Industries at each landing.

2.11 COMMUNICATION SYSTEM

- A. Telephone System: Provide new automatic dial hands-free telephone incorporated in the Car Operating Panel compliant with ADA standards. – Communication System shall meet the requirements of the State of California code adopted at the time of permitting.
 - 1. Provide engraved emergency instructions adjacent to the activation button. Instructions in Braille shall be provided below the engraved instructions.
 - 2. Provide a visual indication that consists of a jewel that illuminates once the master station has received a call. Instructions under the visual indicator or within the lighted jewel shall read: "WHEN FLASHING HELP IS ON THE WAY".
- B. Provide wiring from car to telephone terminal box in each elevator machine room.
- C. Provide communication between car, machine room and fire control room if required.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The contractor shall examine the supporting structure and the conditions under which the work shall be installed and notify the Owner of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the installation until unsatisfactory conditions have been corrected and are acceptable.
- B. Verify dimensions of supporting structure at the site by accurate field measurements. The work shall be accurately fabricated and fitted to the structure. Contractor shall satisfy himself by review of the working drawings and field observation that the clearances and the alignments are proper for the installation of this work.
- C. Coordinate work with the work of other trades and provide items to be placed during the installation at the proper time to avoid delays in the overall work. Use contractor's benchmarks where necessary.
- D. The elevator contractor shall review the existing electrical system and verify all conditions for proper installation of this work. Verify the size of all feeders and related equipment and furnish all equipment for proper operation. The contractor shall be responsible for electrical changes or upgrades required.

3.2 FIELD QUALITY CONTROL

- A. Tests:
 - 1. Pre-Inspection Tests with Owner's Representative prior to inspection by the AHJ (Authority Having Jurisdiction) Inspector.
 - 2. Perform as required by Code and as required by authorities having jurisdiction.
 - 3. Provide labor, materials, equipment and connections.
 - 4. All test results shall be documented and submitted for approval.
 - 5. Repair or replace defective work as required.

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6. Failures for any reason shall be identified with cause(s) and corrective action taken.
 7. Contractor is responsible for damages due to improper testing.
- B. Pre-Final Inspection: A pre-final inspection test shall be coordinated with the Owner and the Owner's Representative prior to the inspection by the AHJ Inspector. A testing and inspection date shall be arranged with the appropriate governing authority. The proper operation of every part of the elevator system and compliance with contract requirements, including compliance with all applicable requirements of the Code, shall be demonstrated to the Owner and the Owner's Representative. Furnish all test instruments, weights, and materials, required at the time of final inspection. The following tests shall be made on the elevator at the time of final inspection:
1. Test Period: The elevator shall be subjected to a test for a period of one-hour continuous run, with full-specified load in the car. During the test run, the car shall be stopped at all floors in both directions of travel for a standing period of 10 seconds per floor.
 2. Speed Load Tests: The actual speed of the elevator car shall be determined in both directions of travel with full contract load and with no load in the elevator car. Speed shall be determined by a tachometer. The actual measured speed of elevator car with full load shall be within 5% of rated speed. The maximum difference in actual measured speeds obtained under the various conditions outlined between the "UP" and the "DOWN" directions shall be checked.
 3. Floor-to-floor times with no load in the car, balanced load and full carload shall be checked.
 4. Car Leveling Tests: Elevator car leveling devices shall be tested for accuracy of landing at all floors with no load in car, balanced load in car, and with a full load in car, in both directions of travel. Accuracy of floor landing plus or minus ¼ inch shall be determined both before and after the full-load run test.
 5. Insulation Resistance Tests: The complete wiring systems of the elevator shall be free from short circuits and grounds, and the insulation resistance shall be determined by use of a "Megger." Conductors shall have an insulation resistance of not less than one meg-ohm between each conductor and ground and between each conductor and all other conductors.
 6. Vibration/Ride Quality Analysis test conducted in the presence of the Owner's Representative.
- C. Final Inspection: When all work is completed, and tested to the satisfaction of the Owner's Representative, the Contractor shall notify the Owner in writing that the elevators are ready for final inspection and acceptance test.
- D. Final Systems Tests for Smoke Detection/Elevator Recall: After work is completed, conduct a final test of entire system including generator test.
- E. Re-inspection: If any equipment is found to be damaged or defective, or if the performance of the elevator does not conform to the requirements of the contract specifications or the Safety Code, no approval or acceptance of the elevator shall be issued until all defects have been corrected. When the repairs and adjustments have been completed and the discrepancies corrected, the Owner shall be notified, and the elevator will be re-inspected. The rejected elevator may be used prior to re-inspection and approval so as to not further burden the occupants of the building. All costs associated with re-inspection are the responsibility of the Contractor. If additional reviews are required due to Contractors gross non-compliance with initial deficiency report, Owner's Representative shall bill the Contractor and the acknowledges he will pay, for additional compliance reviews.
- F. The elevator hoistway, pit and machine rooms shall be thoroughly cleaned. All elevator equipment located within the hoistway, machine room, along with machine room floor and

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pit floor shall be painted where required with two coats of deck enamel after all adjusting is completed. Dielectric matting is to be provided in front of each controller.

3.3 INSTRUCTIONS AND DEMONSTRATION TO OWNER

- A. Contractor shall provide four (4) hours of onsite demonstration and instructions to the owner and existing service personnel upon completion of the elevator modernization. Written Instructions are to include safety procedures, proper operation of all equipment. All instructions and demonstrations are to be videotaped and remain the property of the Owner.

3.4 ADJUSTING, CLEANING and PAINTING

- A. All equipment shall be adjusted prior to final testing and acceptance.
- B. Dielectric matting shall be provided in front of each controller.
- C. Erect all items square, plumb, straight, and accurately fitted with tight joints and intersections.
- D. Restore all exposed work soiled or damaged during installation to its original finish. Repair to match adjoining work prior to final acceptance.
- E. Painting: The following equipment shall be clearly identified by number using four-inch stenciled numerals: crosshead, pit equipment, stop switches, and all machine room and secondary equipment (including but not limited to machines, controllers, drives, transformers, mainline and auxiliary disconnects, etc.), numerical adhesive stickers shall not be utilized for labeling of equipment. The pit area shall be completely cleaned and painted from the pit floor up to the floor level of the first opening. This shall include the floor and walls. All new pit elevator equipment factory finishes shall be touch up/repainted if blemished and/or damaged. The cartop of the elevator shall be completely cleaned and painted. New cab enclosure cartop factory finishes shall be touch up/repainted if blemished and/or damaged. Cleaning shall include the top of the cab, stiles, crosshead, and all other top of car related equipment. The machine room shall be completely cleaned and painted. Painting shall include the floors, walls, pipes, and gutters. The machine and bed plates shall be cleaned and painted. All Factory finishes shall be touch up/repainted if blemished and/or damaged. The counterweight assembly shall be cleaned and painted.

END OF SECTION 14 21 00

SECTION 14 27 00 - ELEVATOR CAB INTERIORS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Pre-engineered elevator interior finish system including the following:
 - 1. Rear wall panels.
 - 2. Side wall panels.
 - 3. Handrails.
 - 4. Corner/flat reveals.
 - 5. Panel binders.
 - 6. Protective pads.
 - 7. Suspended ceiling.
 - 8. Ceiling lighting.

1.2 RELATED SECTIONS

- A. Section 14 21 00 - Elevators.

1.3 REFERENCES

- A. ASTM International (ASTM): ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00 – Submittal Procedures.
- B. Product Data: Provide manufacturer's data sheets on each product to be used.
- C. Shop Drawings: Details of construction, including relationship with adjacent materials. Include installation and maintenance instructions.
- D. Verification Samples: For each finish product specified, two samples, minimum size 2-1/2 inches (63 mm) by 1-1/2 inches (38 mm).

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 10 years' experience in manufacture of architectural surface materials and fabrication of elevator cab interiors.
- B. Installer Qualifications: Minimum 3 years' experience in the installation of elevators.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to installation site in manufacturer's original packaging. Handle products in accordance with manufacturer's instructions. Store in dry, secure location, protected against direct sunlight and excessive heat. Protect finished surfaces.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's limits.

1.8 WARRANTY

- A. Warranty: Provide manufacturer's standard three-year warranty against defects and workmanship, from the date of Substantial Completion.

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PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: SnapCab, which is headquartered at: 175 Titus Ave.; Warrington, PA 18976; Toll Free Tel: 888-766-7834; Email: Eric.Farah@SnapCab.com; Web: www.SnapCab.com

2.2 WALL PANELS AND SUSPENDED CEILING

- A. Elevator Interior Wall Panel System, Interlocking Panel Type:
1. Description: Interlocking panel system comprised of removable wall panels with interlocking joints, 1/8 inch (3 mm) black shadow lines set into surface, toe kicks, top caps with sight and vent guards, panel binders at exposed panel edges near doors and corner/flat reveals.
 2. Panel Model: Imperial I.
- B. Elevator Interior Suspended Ceiling System:
1. Description: Suspended ceiling with adjustable mounting legs and removable panel for access to escape hatch.
 2. Ceiling Style: Island Ceiling.

2.3 MATERIALS

- A. Wall Panel Core: Core Type will be determined based on manufacturing standards for face material selection:
1. Wall Panel Core Type 2: 5/8 inch (15 mm) minimum thickness fire-rated resin particle board, Class B or better fire rated as per ASTM E 84. Panel backer sheet and adhesives as per manufacturer to achieve fire rating as tested.
- B. Wall Panel Face:
1. Stainless Steel Face:
 - a. Smooth Surface Panels: Stainless steel, 20 gauge. Panel assembly to be Class B or better fire rated as per ASTM E 84.
 - 1) Finish: No. 4 Satin.
 - b. Textured Metal Surface Panels: Stainless steel, 20 gauge. Assembly to be Class B or better fire rated as per ASTM E 84.
 - 1) Pattern: TBD - As selected from manufacturer's standard product line.
 - c. Layers/Accents:
 - 1) Layer: Textured stainless steel on Layer 2.
 - 2) Layer: Stainless steel No. 4 on Layer 3.
 - 3) Layer: Textured stainless steel on Layer 4.
- C. Toe Kick and Toe Kick Binder with Concealed Ventilation Gap for Interlocking Panels:
1. Satin No. 4 finish 20 gauge stainless steel toe kick with anodized mill finish aluminum binder (standard).
- D. Top Cap:
1. Anodized mill finish aluminum top cap with integrated pad hook channel (standard).
- E. Corner and Flat Reveals:
1. Stainless steel, 20 gauge, No. 4 satin finish (standard).
- F. Panel Binders: Standard at exposed panel edges near door jambs.
1. Anodized mill finish aluminum (standard).

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- G. Handrails: Pre-installed on wall panel to measure 32 inches (831 mm) above finished floor unless indicated otherwise.
 - 1. Location: Back wall only.
 - 2. Type: Round handrail with returned ends.
 - a. Size: 2 inches (50 mm) diameter.
 - b. Material and Finish: Satin stainless steel with No. 4 finish.
- H. Protective Pads: Vinyl protective pads for cab walls.
 - 1. Type: Pads with pre-attached pad hooks that lock into integrated pad hook channel in the top cap, eliminating the need for pad buttons.
 - 2. Quantity: Set of 2.
 - 3. Color: Grey.
 - 4. Color: As selected from manufacturer's standard product line.
- I. Suspended Ceiling:
 - 1. Island Ceiling:
 - a. Type: Ceiling with concealed heavy-duty brushed 1.5 inch (38 mm) T aluminum frame, with adjustable mounting legs and divided into six sections, nine for larger cars, with a removable panel for access to the escape hatch. Ceiling Class B or better fire rated as per ASTM E 84 and LEED compliant.
 - b. Facing: Stainless steel with No. 4 satin finish.
- J. Ceiling Lights:
 - 1. LED Standard Fixtures Mounted on Suspended Ceiling: Standard LED downlights, low energy, low voltage, warm white (3000 Kelvin), 4 watt bulbs, 127 degree beam spread, up to 50,000 hours of life; integrated tamperproof metal trim ring. Pre-installed dimmer control included.
 - a. Emergency light battery backup.

PART 3 EXECUTION

3.1 PREPARATION

- A. Prepare surfaces using the methods recommended by the manufacturer in printed installation instructions for achieving the best result for the substrate under the project conditions.
- B. Protect elevator finishes, fixtures and equipment from damage.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions. Install in proper relationship to adjacent materials.
 - 1. Do not make structural changes to elevator cab.
 - 2. Do not install work in a manner that interferes with the safe operation of the elevator.

3.3 CLEANING AND PROTECTION

- A. Clean exposed surface in accordance with manufacturer's instructions.
- B. Protect exposed surfaces from damage by subsequent construction.

END OF SECTION