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DIVISION 01 - GENERAL REQUIREMENTS**

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END OF DOCUMENT 01 0111

DOCUMENT 01 2600
CONTRACT MODIFICATION PROCEDURES

ARTICLE I. GENERAL

1.01. Summary

- A. Document includes: Description of general procedural requirements for alterations, modifications, and extras.
- B. Reference: Public Contract Code Section 7105(d)(2).

1.02. General

- A. Any change in scope of Work or deviation from Contract Documents including, without limitation, extra work, or alterations or additions to or deductions from the original Work, shall not invalidate the original Contract, and shall be performed under the terms of the Contract Documents.
- B. [not used]
- C. Only CMR or Owner may initiate changes in scope of Work or deviation from Contract Documents. (See also paragraph 1.03.A.).
 - 1. CMR may initiate changes by submitting a Change Order Request (**COR**), Notice of Concealed or Unknown Conditions, or Notice of Hazardous Waste Conditions, accompanied by a Cost Proposal (see paragraph 1.03.A.).
 - a. A COR shall be submitted to request changes in the Contract Documents.
 - b. Notices of Concealed or Unknown Conditions shall be submitted in accordance with Document 00 7200 (General Conditions).
 - c. Notices of Hazardous Waste Conditions shall be submitted in accordance with Document 00 7200 (General Conditions).
 - 2. CMR shall submit RFIs for clarifications in the Contract Documents.
 - 3. Owner may initiate changes by issuing an Architectural Supplemental Instruction (**ASI**) or Amended Contract Document (**ACD**), which may revise, add to or subtract from the Work.
 - 4. Owner may initiate changes in the Work or Contract Time by issuing a Request for Proposal (**RFP**).
 - 5. Owner may also, by Construction Change Directive (**CCD**), order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly. A CCD shall be used in the absence of total agreement on the terms of a Change Order and may, upon express written notice designating it as a CCD, consist of a Change Order executed by Owner only.

1.03. Procedures

- A. Cost Proposal and Procedures. Whenever CMR is required in this Document 01 2600 to prepare a Cost Proposal, and whenever CMR is entitled to submit a Cost Proposal and

elects to do so, CMR shall prepare and submit to Owner for consideration a Cost Proposal using the form attached to this Document 01 2600. All Cost Proposals must contain a complete breakdown of costs of credits, deducts and extras; itemizing materials, labor, taxes, overhead and profit and any requested changes to Contract Time. All Subcontractor Work shall be so indicated. Individual entries on the Cost Proposal form shall be determined as provided in paragraphs 1.04 and 1.05 of this Document 01 2600. After receipt of a Cost Proposal with a detailed breakdown, Owner will act promptly thereon.

1. If Owner accepts a Cost Proposal, Owner will prepare Change Order for Owner and CMR signatures.
2. If Cost Proposal is not acceptable to Owner because it does not agree with cost and/or time included in Cost Proposal, Owner will submit in a response what it believes to be a reasonable cost and/or adjustment, if any. Except as otherwise provided in this Document 01 2600, CMR shall have seven (7) Days in which to respond to Owner with a revised Cost Proposal.
3. When necessity to proceed with a change does not allow Owner sufficient time to conduct a proper check of a Cost Proposal (or revised Cost Proposal), Owner may order CMR to proceed on basis to be determined at earliest practical date. In this event, value of change, with corresponding equitable adjustment to Contract, shall not be more than increase or less than decrease proposed.

B. Request for Information. Whenever CMR requires information regarding the Project or Contract Documents, or receives a request for information from a Subcontractor, CMR may prepare and deliver an RFI to Owner. CMR shall reference each RFI to an activity of Progress Schedule and shall note time criticality of the RFI, indicating time within which a response is required. CMR's failure to reference RFI to an activity on the Progress Schedule and note time criticality on the RFI shall constitute CMR's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI.

1. Owner will establish time for response to RFIs. CMR shall distribute response to all appropriate Subcontractors.
2. If CMR is satisfied with the response and does not request change in Contract Sum or Contract Time, then the response shall be executed without a change.
3. If CMR believes the response is incomplete, CMR shall issue another RFI (with the same RFI number with the letter "A" indicating it is a follow-up RFI) to Owner clarifying original RFI. Additionally, Owner may return RFI requesting additional information should original RFI be inadequate in describing condition.
4. If CMR believes that the response results in change in Contract Sum or Contract Time, CMR shall notify Owner with the issuance of a COR at a time established by Owner. If Owner disagrees with CMR, then CMR may give notice of intent to submit a Claim as provided in Article XII of Document 00 7200 (General Conditions), and submit its Claim as provided therein. If Owner agrees with CMR, or otherwise wishes CMR to submit a Cost Proposal, then CMR must submit a Cost Proposal at a time established by Owner. CMR's failure to deliver either the foregoing notice and Claim or Cost Proposal by the respective deadlines stated in

the foregoing sentences shall result in waiver of the right to file a Cost Proposal or Claim.

5. CMR shall be responsible for its costs to implement and administer RFIs throughout the Contract duration. Regardless of the number of RFIs submitted, CMR shall not be entitled to additional compensation for the effort required to submit the RFIs. CMR shall be responsible for both Owner and its Architect/Engineer's administrative costs for answering RFIs where the answer could reasonably be found by reviewing the Contract Documents, as determined by Owner; at Owner discretion, such costs may be deducted from progress payments or final payment.
- C. Supplemental Instruction or Field Modification. Owner may issue an Architectural Supplemental Instruction (**ASI**) or Amended Contract Document (**ACD**) (also called Field Modification) to CMR.
1. If CMR is satisfied with Supplemental Instruction and does not request change in Contract Sum or Contract Time, then Supplemental Instruction shall be executed without a Change Order.
 2. If CMR believes that Supplemental Instruction results in change in Contract Sum or Contract Time, then CMR must submit a COR and Cost Proposal to Owner at a time established by Owner.
- D. Construction Change Directives. If at any time Owner believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, Owner may issue a CCD with its recommended cost and/or time adjustment. Upon receipt of CCD, CMR shall promptly proceed with the change of Work involved and concurrently respond to Owner's CCD at a time established by Owner.
1. CMR's response must be any one of following:
 - a. Return CCD signed, thereby accepting Owner response, time and cost.
 - b. Submit a (revised if applicable) Cost Proposal with supporting documentation (if applicable, reference original Cost Proposal number followed by letter A, B, etc. for each revision), if Owner so requests.
 - c. Give notice of intent to submit a claim as described in Article XII of Document 00 7200 (General Conditions), and submit its claim as provided therein.
 2. If the CCD provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:
 - a. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
 - b. Cost to be determined in a manner agreed.
 3. CCD signed by CMR indicates the agreement of CMR therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

4. If CMR does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by Owner on the basis of reasonable expenditures and savings of those performing the Work attributable to the change including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. If the parties still do not agree on the price for a CCD, CMR may file a Claim per Article XII of Document 00 7200 (General Conditions). CMR shall keep and present an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this paragraph shall be limited to those provided in paragraphs 1.4 and 1.5 of this Document 01 2600.
 5. Pending final determination of cost to Owner, amounts not in dispute may be included in Applications for Payment. The amount of credit to be allowed by CMR to Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by Owner. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.
- E. Owner Requested RFP. Owner RFP will detail all proposed changes in the Work and request from CMR a Cost Proposal including proposed changes in Contract Sum and Contract Time from CMR. CMR shall furnish a Cost Proposal at a time established by Owner. Upon approval of Cost Proposal, Owner will issue a Change Order directing CMR to proceed with extra Work. If the parties do not agree on the price or time for an RFP, Owner may either issue a CCD or decide the issue per Article XII of Document 00 7200 (General Conditions). CMR shall perform the changed Work notwithstanding any claims or disagreements of any nature.
- F. Differing Site Conditions and/or Hazardous Waste Conditions. CMR shall submit Notices of Differing Site Conditions and/or Hazardous Waste Conditions to resolve problems regarding differing underground Site conditions encountered in the execution of the Work pursuant to Article XIV of Document 00 7200 (General Conditions). If Owner determines that a change in Contract Sum or Contract Time is justified, Owner will issue RFP or CCD.
- G. All Changes.
1. Documentation of Change in Contract Sum and Contract Time:
 - a. CMR shall document each proposal for a change in cost or time with sufficient data to allow evaluation of the proposal.
 - b. CMR shall, on request, provide additional data to support computations for:
 - (i) Quantities of products, materials, labor and equipment.
 - (ii) Taxes, insurance, and bonds.
 - (iii) Overhead and profit.
 - (iv) Justification for any change in Contract Time and new Progress Schedule showing revision due, if any.

- (v) Credit for deletions from Contract, similarly documented.
 - c. CMR shall support each claim for additional cost, and for Work performed on a cost-and-percentage basis, with additional information including:
 - (i) Credit for deletions from Contract, similarly documented.
 - (ii) Origin and date of claim.
 - (iii) Dates and times Work was performed and by whom.
 - (iv) Time records and wage rates paid.
 - (v) Invoices and receipts for products, materials, equipment and subcontracts, similarly documented.
 - H. Correlation of Other Items.
 - 1. CMR shall revise Schedule of Values and Application for Payment forms to record each authorized Change Order or CCD as a separate line item and adjust the Contract Sum as shown thereon prior to the next monthly pay period.
 - 2. CMR shall revise the Progress Schedules prior to the next monthly pay period.
 - 3. CMR shall enter changes in Project Record Documents prior to the next monthly pay period.
 - I. Responses. For all responses for which the Contract Documents, including without limitation this Document 01 2600, do not provide a specific time period, recipients shall respond within a reasonable time.
 - J. Disputes. For all disputes arising from the procedures herein, CMR shall follow Article XII of Document 00 7200.
- 1.04. Cost Determination
- A. Total Cost of Extra Work or Work Omitted. Total cost of extra Work or of Work omitted shall be the sum of actually incurred labor costs, material costs and equipment rental costs as defined herein (together, **Direct Costs of Construction**) plus overhead and profit markup as allowed herein. This limit applies in all cases of claims for extra Work, whether calculating Cost Proposals, Change Orders CCDs or any other Contract Modifications, or calculating claims of all types, and applies even in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. Neither CMR nor Subcontractors may recover any other costs arising out of or connected with the performance of extra Work, of any nature. No special, incidental or consequential damages may be claimed or recovered against Owner, its representatives or agents, whether arising from breach of contract, negligence or strict liability, unless specifically authorized in the Contract Documents.
 - B. Overhead and Profit Markup. (Overhead and Profit shall be as defined in paragraph 1.8 of this Document 01 2600) Overhead and profit markup shall be a maximum of 20 percent of the Direct Costs of Construction, to be allocated between CMR and Subcontractors as CMR directs.
 - 1. Overhead and profit on labor for extra Work shall be 15 percent.

2. Overhead and profit on materials for extra Work shall be 15 percent.
 3. Overhead and profit on equipment rental for extra Work shall be 10 percent.
 4. When extra Work is performed by a first tier Subcontractor, CMR shall receive a 5 percent markup on Subcontractors' total costs of extra Work. First tier Subcontractor's markup on its Work shall not exceed 15 percent.
 5. When extra Work is performed by a lower tier Subcontractor, CMR shall receive a total of 5 percent markup on the lower tier Subcontractors' total costs of extra Work. CMR and first tier Subcontractors and lower tier Subcontractors shall divide the 10 percent markup as mutually agreed.
 6. Notwithstanding the foregoing, in no case shall the total markup on any extra Work exceed 20 percent of the Direct Costs of Construction, notwithstanding the actual number of contract tiers.
- C. Contingency. Contingency shall be adjusted by 5 percent of Direct Cost of Construction of all extra work.
- D. On Contract Modifications covering both extra Work and Work omitted, overhead and profit shall be allowed, and contingency shall be adjusted, on the net increase only to Direct Costs of Construction. When the net difference is a deletion, no percentage for overhead and profit, or contingency, shall be allowed, but rather an appropriate percentage deduction shall be issued in the amount of the net difference.
- E. Overhead and profit markup shall include profit, small tools, cleanup, engineering, supervision, warranties, cost of preparing the cost proposal, jobsite overhead, home office overhead, and all amounts included within the definition thereof in paragraph 1.8 below. No markup will be allowed on taxes, insurance, and bonds.
- F. Taxes. All State sales and use taxes, County and applicable City sales taxes, shall be included. Federal and Excise tax shall not be included.
- G. Subcontract-Operated Equipment. When Subcontractor (of any tier)-operated equipment is used to perform extra Work, cost to Owner of operator shall be as follows:
1. Payment for equipment will be made in accordance with paragraph 1.5.3 below.
 2. Payment for cost of labor will be made at no more than rates of such labor established by collective bargaining agreements for type of worker and location of Work, whether or not owner-operator is actually covered by such an agreement.
- H. Accord and Satisfaction: Every Change Order, Contract Modification and accepted CCD shall constitute a full accord and satisfaction, and release, of all CMR and Subcontractor claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay and any other type of claim. CMR may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change Order or approves a CCD, but must do so expressly in a writing delivered concurrently with the executed Change Order or approved CCD, and must also submit a Claim for the reserved disputed items pursuant to Article XII of Document 00 7200 no later than thirty (30) days of CMR's first written notice of its intent to reserve rights.

1.05. Cost Breakdown

- A. Labor. Cost of labor for Subcontractor workers (including forepersons when authorized by Owner) used in actual and direct performance of extra Work. Labor rate, whether employer is Subcontractor or other forces, will be sum of following:
1. Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
 2. Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages as defined in paragraph 1.5.1(1) above, such as taxes and worker's compensation insurance. Such labor surcharge shall not exceed that set forth in California Department of Transportation official labor surcharges schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein.
- B. Material. Only materials furnished by Subcontractor and necessarily used in performance of extra Work will be paid for. Cost of such materials will be cost, including sales tax, to purchaser (Subcontractor or other forces) from supplier thereof, except as the following are applicable:
1. If cash or trade discount by actual supplier is offered or available to purchaser, it shall be credited to Owner notwithstanding fact that such discount may not have been taken.
 2. For materials salvaged upon completion of extra Work, salvage value of materials shall be deducted from cost, less discounts, of materials.
 3. If cost of a material is, in opinion of Owner, excessive, then cost of material shall be deemed to be lowest current wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in paragraph 1.5.2(1) of this Document 01 2600.
- C. Equipment Rental. For Subcontractor-owned equipment, payment will be made at rental rates listed for equipment in California Department of Transportation official equipment rental rate schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein. If there is no applicable rate for an item of equipment, then payment shall be made for Subcontractor-owned equipment at rental rate listed in the most recent edition of the Association of Equipment Distributors (AED) book. For rented equipment, payment will be made based on actual rental invoices. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by Owner. Rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Unless otherwise specified, manufacturer's ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates. Individual pieces of equipment or tools not listed in said publication and having a replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be

made therefor as payment is included in payment for labor. Rental time will not be allowed while equipment is inoperative due to breakdowns.

1. For equipment on Site, rental time to be paid for equipment shall be time equipment is in operation on extra Work being performed or on standby as approved by Owner. The following shall be used in computing rental time of equipment:
 - a. When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.
 - b. When daily rates are listed, less than four hours of operation shall be considered to be ½ Day of operation.
 2. For equipment that must be brought to Site to be used exclusively on extra Work, cost of transporting equipment to Site and its return to its original location shall be determined as follows:
 - a. Owner will pay for costs of loading and unloading equipment.
 - b. Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
 - c. Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission.
 - d. Owner will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
 3. Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which Owner directs discontinuance of use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and Owner legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four hours for zero hours of operation, six hours for four hours of operation and eight hours for eight hours of operation, time being prorated between these parameters. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight less number of hours equipment is inoperative due to breakdowns.
- D. Work Performed by Special Forces or Other Special Services. When Owner and CMR, by agreement, determine that special service or item of extra Work cannot be performed by forces of any Subcontractors, service or extra Work item may be performed by specialist. Invoices for service or item of extra Work on basis of current market price thereof may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with established practice of special service industry to provide complete itemization. In those instances wherein Subcontractors are required to perform extra Work necessitating a fabrication or machining process in a fabrication or machine shop facility away from Site, charges for that portion of extra Work performed in such facility may, by agreement, be accepted as a specialist billing. Owner must be notified in advance of all off-Site Work. In lieu of overhead and profit provided in

paragraph 1.4.2 of this Document 01 2600, 15 percent will be added to specialist invoice price, after deduction of any cash or trade discount offered or available, whether or not such discount may have been taken.

1.06. Force-Account Work

- A. If it is impracticable because of nature of Work, or for any other reason, to fix an increase or decrease in price definitely in advance, the CMR may be directed to proceed at a not-to-exceed (NTE) maximum price which shall not under any circumstances be exceeded. Subject to such limitation, such extra Work shall be paid for at actual necessary cost for Force-Account Work or at the negotiated cost, as determined by Owner. The cost for Force-Account Work shall be determined pursuant to paragraphs 1.04 and 1.05 of this Document 01 2600.
- B. Force-Account Work shall be used when it is not possible or practical to price out the changed Work prior to the start of that Work. In these cases, Force-Account Work will be utilized during the pricing and negotiation phase of the change. Once negotiations have been concluded and a bilateral agreement has been reached, the tracking of the Work under Force-Account is no longer necessary. Force-Account Work shall also be used when negotiations between Owner and CMR have reached an impasse and a bilateral agreement on the value of the changed Work cannot be reached. Owner may approve other uses of Force-Account Work.
- C. Whenever any Force-Account Work is in progress, definite price for which has not been agreed on in advance, CMR shall report to Owner each Business Day in writing in detail amount and cost of labor and material used, and any other expense incurred in Force-Account Work on preceding Day, by using the Cost Proposal form attached hereto. No claim for compensation for Force-Account Work will be allowed unless report shall have been made.
- D. Whenever Force-Account Work is in progress, definite price for which has not been agreed on in advance, CMR shall report to Owner when 75 percent of the NTE amount has been expended.
- E. Force-Account Work shall be paid as extra Work under this Document 01 2600. Methods of determining payment for Work and materials provided in this paragraph 1.06 shall not apply to performance of Work or furnishings of material that, in judgment of Owner, may properly be classified under items for which prices are otherwise established in Contract Documents.

1.07. Owner-Furnished Materials. Owner reserves right to furnish materials as it deems advisable, and CMR shall have no claims for costs and overhead and profit on such materials.

1.08. Overhead and Profit Defined

- A. The following constitutes charges that are deemed included in overhead and profit for all Contract Modifications, including Force-Account Work or CCD Work, whether incurred by CMR, Subcontractors, or suppliers, and neither CMR nor any Subcontractor may invoice or receive payment for these costs separately:
 - 1. Drawings: field drawings, Shop Drawings, etc., including submissions of drawings
 - 2. Routine field inspection of Work proposed

3. General Superintendence
4. General administration and preparation of cost proposals, schedule analysis, change orders and other supporting documentation as necessary
5. Computer services
6. Reproduction services
7. Salaries of project Architect/Engineer, superintendent, timekeeper, storekeeper and secretaries
8. Janitorial services
9. Temporary on-Site facilities: offices, telephones, plumbing, electrical (power, lighting), platforms, fencing, etc., water.
10. Home office expenses
11. Insurance and Bond premiums
12. Commissions
13. Procurement and use of vehicles and fuel used coincidentally in Work otherwise included in the Contract Documents
14. Surveying
15. Estimating
16. Protection of Work
17. Handling and disposal fees
18. Final cleanup
19. Other incidental Work
20. All amounts for items in Bid Items 3 and 4 as described in Document 01 1000 (Summary).

1.09. Records And Certification

- A. Force-Account (cost reimbursement) charges shall be recorded daily and summarized in Cost Proposal form attached hereto. CMR or authorized representative shall complete and sign form each day. CMR shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; a list by size type and identification number of equipment and hours operated; and an indication of all Work performed by specialists.
- B. No payment for Force-Account Work shall be made until CMR submits original invoices substantiating materials and specialists charges.
- C. Owner shall have the right to audit all records in possession of CMR relating to activities covered by CMR's claims for modification of Contract, including Force-Account Work and CCD Work.
- D. Further, Owner will have right to audit, inspect, or copy all records maintained in connection with this Contract, including financial records, in possession of CMR relating to

any transaction or activity occurring or arising out of, or by virtue of, the Contract. If CMR is a joint venture, right of Owner shall apply collaterally to same extent to records of joint venture sponsor, and of each individual joint venture member. This right shall be specifically enforceable, and any failure of CMR to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to the Article XII of Document 00 7200.

ARTICLE II. PRODUCTS – NOT USED

ARTICLE III. EXECUTION – NOT USED

END OF DOCUMENT 00 2600
(COST PROPOSAL FORM FOLLOWS ON NEXT PAGE)

COST PROPOSAL (CP)

Stephens Wing SPC2 Upgrade and Kitchen Relocation
 OSHPD Project No. I170009-01-00
 Contract Number _____

CP Number: ____
 Date: ____
 In Response To: _____

To: ALAMEDA HEALTH SYSTEM

Attention: _____
 [ENTER OWNER ADDRESS]
 Telephone (____) [____]
 Fax: (____) [_____]

Subject Ref. No: _____
 (for Project Manager use only)

From: [INSERT CMR'S NAME/ADDRESS]

This Cost Proposal is in response to the above-referenced _____ [insert RFP, etc. as applicable].
 Brief description of change(s): _____

ITEM DESCRIPTION	CMR	SUB 1	SUB 2	SUB 3	SUB 4	TOTAL
Direct Labor Cost						
Material						
Equipment						
TOTAL COST OF CONSTRUCTION						
Performing Subcontractor's O/H & P on Labor (15%)						
Performing Subcontractor's O/H & P on Materials (15%)						
Performing Subcontractor's O/H & P on Equipment (10%)						
O/H & P to CMR for Subcontractor's Work (5%)						
Contingency (5%)						
(Percent of Total Cost above not including any O/H, profit, or contingency)						
GRAND TOTAL						
REQUESTED CHANGE IN CONTRACT TIME (DAYS):						

END OF DOCUMENT – COST PROPOSAL

**DOCUMENT 01 3100
PROJECT MANAGEMENT AND COORDINATION**

ARTICLE I. GENERAL

1.01. Summary

- A. This Document includes:
 - 1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 - Related Documents And Sections
 - c. 1.03 – Definitions (Not Used)
 - d. 1.04 – Coordination
 - e. 1.05 – Pre-work Verification
 - f. 1.06 – Administrative Actions
 - g. 1.07 – Conservation
 - 2. Article II – Products (Not Used)
 - 3. Article III – Execution (Not Used)
 - 4. Article IV – Forms (Not Used)

1.02. Related Documents And Sections (Not Used)

1.03. Definitions (Not Used)

1.04. Coordination

- A. Contractor must not delegate Contractor’s responsibility for coordination of the Work to any Subcontractor.
- B. Contractor must provide a General Superintendent whose sole responsibility is administration of the Contractor’s Work and the coordination of the Work of the Contractor’s Subcontractors and suppliers.
- C. Contractor to financially compensate Owner for any originally-submitted Contractor’s staff being removed from the Project without Owner’s written authorization. Financial compensation is to be determined by Owner.
- D. Contractor must provide administrative and supervisory personnel as needed or required for timely compliance with all administrative requirements of the Contract Documents and proper coordination of the performance of the Work.
- E. Contractor must ensure that each Subcontractor provides personnel as reasonably required for management and coordination of the Subcontractor’s Work and for coordination of the Subcontractor’s Work with the Work of the entire Project.
- F. Contractor must coordinate the Work to ensure efficient and orderly installation of each part of the Work of the entire Project including but not limited to:

1. Coordinating all aspects of the Work as required to provide the Owner with a complete and operable facility.
2. Coordinating the Work with the work of other contractors and entities to ensure efficient and orderly installation of each part of the Work of the entire Project.
3. Managing the Project Shut Down process between and among all subcontractors in accordance with Owner's policy, which requires ten (10) working days' notice and approval prior to any Shut Down.
4. All MEP, utilities, and med gas Shut Downs that affect any hospital critical system will require an MOP (Method of Procedure) to be generated for that specific Shut Down. The MOP will then be submitted to Owner ten (10) working days prior for review and approval so as not to affect the Project schedule for this work.
5. Coordinating installation of different components and systems of the Work to ensure maximum accessibility for required maintenance, service, and repair.
6. Coordinating the Work included in different Sections of the Project Manual that depend on each other for proper installation, connection, and operation.
7. Coordinating the Work of all Subcontractors and suppliers.
8. Coordinating the Work in such a manner to avoid delays and permit proper and efficient installation of the Work by all Subcontractors.
9. Coordinating electrical/mechanical Work, particularly between general trades and mechanical/electrical trades, including the work of Owner and other contractors, so that sleeves, hangers, chases, openings, etc., required for pipe, conduit, and other installations of like character are duly and properly Provided and Installed as Work progresses.
10. Coordinating all cutting, fitting and patching that may be required to make the parts of the Work come together properly for the completed Project as shown or as reasonably implied by the Contract Documents.
11. Coordinating for future installation of work by others that is not included in the Contractor's Work but is shown or specified in the Contract Documents.
12. Coordinating delivery of materials in accordance with the Official Progress Schedule.
13. Coordinating and cooperating in the timing and sequencing of Contractor's Work with the work of other contractors or the Owner.
14. Sequencing the Work to obtain the best results where installation of one component of the Work depends on installation of other components, before or after its own installation.
15. Making adequate provisions to accommodate items scheduled for later installation by Contractor, Owner, or other contractors.
16. Checking the drawings of the Owner or other contractors for interferences with Contractor's Work and promptly reporting to Owner, in writing, any potential

interferences between the Contractor's Work and the work of Owner or the work of other contractors.

17. Utilizing the Contract Documents and Owner accepted Submittals to check and coordinate the Work so that no interferences or conflicts between trades occur. This checking and coordination must be performed and completed before construction is commenced in each affected area and may require the preparation and submission of Coordination Drawings.
18. Furnishing to other contractors, whose work is fitted to Contractor's Work, Record Documents, Coordination Drawings, details, and erection drawings giving full information regarding the Fabrication, assembly, and installation of Contractor's Work.
19. Preparing 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. Prepare similar memoranda for the Owner and separate contractors if coordination of their Work is required.
20. Resolving disputes between Subcontractors.
21. In the case of a request for a hospital critical system Shut Down, a meeting must be coordinated between Contractor, the subcontractor performing the work, Owner's Facilities Coordinator, and the CM/PM. The meeting will be for the sole purpose of reviewing the MOP submitted by the Contractor or Subcontractor performing the work and for all required participants to acknowledge and approve the MOP. Once all approve the MOP the Shut Down request will be signed off and distributed to all parties involved with a copy of the approved MOP attached.

1.05. Pre-Work Verification

- A. Prior to starting a particular type or kind of Work:
 1. Review all Contract Documents and other relevant data related to the type or kind of Work to be performed;
 2. Check Owner accepted Submittals and verify dimensions at Project Site;
 3. Review manufacturers' instructions applicable to conditions under which Work is to be installed;
 4. Inspect areas, surfaces or construction receiving the Work; and
 5. Report to Owner in writing any concerns, issues, or problems observed during Contractor's Pre-Work verification at least five (5) working days before beginning Phase II work on the Project.
- B. Start of Work shall signify compliance with the above requirements and acceptance of previously placed construction or substrates as being in satisfactory condition to achieve proper installations and first quality workmanship as intended under these Contract Documents. Failure to so inspect and report to Owner shall constitute an acceptance of the previously placed construction or substrates.

1.06. Administrative Actions

- A. Administrative actions include, but are not limited to, the following:
 - 1. Preparation, update, and revision of Contractor's Official Progress Schedule. (See Document 01 3200, Construction Progress Documentation.)
 - 2. Delivery and review of Submittals. (See Document 01 3300, Submittals.)
 - 3. Project Meetings. (See Document 01 3150, Project Meetings.)
 - 4. Project closeout activities. (See Document 01 7700, Closeout Procedures.)
 - B. Coordinate timing of required administrative actions with construction activities and activities of Owner and other contractors to avoid conflicts and ensure orderly progress of the Work.
- 1.07. Conservation
- A. Coordinate Work to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - B. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.

ARTICLE II. PRODUCTS (NOT USED)

ARTICLE III. EXECUTION (NOT USED)

ARTICLE IV. FORMS (NOT USED)

END OF DOCUMENT 013100

DOCUMENT 01 3200
CONSTRUCTION PROGRESS DOCUMENTATION

ARTICLE I. GENERAL

1.01. Summary

A. This Document includes:

1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 – Related Documents And Sections
 - c. 1.03 – Definitions
 - d. 1.04 – General Requirements
2. Article II – Products
 - a. 2.01 - Scheduling Software
3. Article III – Execution
 - a. 3.01 - Basic Progress Schedule Requirements
 - b. 3.02 - CPM Progress Schedule
 - c. 3.03 - Schedule Orientation Meeting
 - d. 3.04 - Preliminary Contract Schedule
 - e. 3.05 - Baseline Schedule
 - f. 3.06 - Official Progress Schedule
 - g. 3.07 - Monthly Update of Official Progress Schedule
 - h. 3.08 - Revised Official Progress Schedule
 - i. 3.09 - Short Interval Schedule
 - j. 3.10 - Recovery Schedule
 - k. 3.11 - Cost Breakdown
 - l. 3.12 - Time Extensions
 - m. 3.13 - Submittal Logs
 - n. 3.14 - Project Reports
4. Article IV – Forms (Not Used)

1.02. Related Documents And Sections (Not Used)

1.03. Definitions

- A.
- Baseline Schedule
- . The Contractor's initial CPM Progress Schedule accepted by the Owner as presenting an orderly and realistic plan for completion of the
- entire
- Work of the Project. When accepted by the Owner's Project Manager, the Contractor's Baseline Schedule becomes the initial version of the Official Progress Schedule.

- B. Basic Progress Schedule. The Basic Progress Schedule is the Contractor's Progress Schedule prepared in chart or graph format, consistent in all respects with the Contract Time(s) and order of Work, presented in sufficient detail to show the chronological relationship of all activities of the Project including but not limited to planned starting and completion dates of various activities, submittal of Shop Drawings, procurement of materials and equipment, and deliveries of materials and equipment.
 - C. CPM Progress Schedule. The Contractor's Progress Schedule prepared in CPM Precedence format using the scheduling software required by this Document 01 3200.
 - D. Official Progress Schedule. The Contractor's Progress Schedule and all revisions and updates thereto, accepted by the Owner, in accordance with the requirements of the Contract Documents.
 - E. Progress Schedule. The Contractor's schedule prepared in accordance with the requirements of the Contract Documents.
 - F. Preliminary Contract Schedule (also called an Initial Schedule). The Contractor's CPM Progress Schedule presenting its detailed sequence of early operations including procurement of materials and equipment for a minimum of ninety (90) Days from the official Contract start date stated in the Notice to Proceed. The Preliminary Contract Schedule must also present all Milestones, sequences, and activities occurring during the entire Contract Time that are specifically required by the Contract Documents to be shown on the Contractor's Preliminary Contract Schedule.
 - G. Recovery Schedule. Contractor's detailed schedule indicating how Contractor intends to recover lost time.
 - H. Revised Official Progress Schedule. Contractor's written request to revise the current version of the Official Progress Schedule. If the Owner accepts the Contractor's request to revise the Official Progress Schedule, it becomes the new current version of the Official Progress Schedule.
 - I. Short Interval Schedule. The Contractor's four-week schedule showing the past week, the week submitted, and two weeks thereafter. The Short Interval Schedule must correlate with the current version of the Official Progress Schedule and reference the appropriate activity numbers.
 - J. Updated Official Progress Schedule. The current version of the Official Progress Schedule updated to include the actual start and finish dates of activities and the percentage of completion of each activity.
- 1.04. General Requirements
- A. Perform scheduling of Work under this Contract in accordance with requirements of this Document 01 3200.
 - 1. Development of schedule, cost, and resource loading of the progress. Schedule, monthly payment requests, and project status reporting requirements of the Contract Documents shall employ scheduling as required in this Document 01 3200.
 - 2. The Schedule shall be cost-loaded based on Schedule of Values as approved by Owner.

- B. Upon Award of Contract, immediately commence development of Preliminary Contract Schedule to ensure compliance with schedule submittal requirements.
- C. Contractor's obligations under this Document 01 3200 are hereby deemed material obligations justifying Owner remedies for default if Contractor fails to perform. Nothing in this paragraph 1.04.C. of this Document 01 3200 or the lack of an express statement that any other Contract Documents provision is or is not material shall be considered in determining whether any such other provision is material.
- D. Employ competent scheduling personnel or a schedule consultant with experience performing scheduling required herein on a minimum of two prior, similar projects, and with first-hand knowledge of this Project, including monthly site visits.
- E. Progress Schedule shall be based on, and incorporate milestone and completion dates specified, in Contract Documents.
- F. Overall time of completion and time of completion for each milestone shown on Progress Schedule shall adhere to times in Document 00 5201 (Agreement), unless an earlier (advanced) time of completion is requested by Contractor and agreed to by Owner. A Change Order shall formalize any such agreement.
 - 1. Owner is not required to accept an earlier (advanced) schedule, i.e., one that shows early completion date(s) for the contract time.
 - 2. Contractor is not entitled to extra compensation in event agreement is reached on an earlier (advanced) schedule and contractor completes its work, for whatever reason, beyond completion date shown in earlier (advanced) schedule but within the contract time.
 - 3. A schedule showing the work completed in less than the contract time, which has been accepted by owner, shall be considered to have project float. The project float is the time between the scheduled completion of the work and contract substantial completion. Project float is a resource available to both owner and contractor.
 - 4. Float ownership: neither owner nor contractor owns float. The project owns the float. As such, liability for delay of any substantial completion or final completion date rests with the party whose actions, last in time, actually cause delay to a substantial completion or final completion date.
 - a. For example, in the event of unexcused delay by Party A and Party B, and if Party A uses some, but not all of the float and Party B later uses remainder of the float as well as additional time beyond the float, Party B shall be liable for the time that represents a delay to the Substantial Completion date.
 - b. Under this scenario, Party A would not be responsible for the time since it did not consume all of the float and additional float remained; therefore, the Substantial Completion Date was unaffected.
- G. Progress Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. Responsibility for developing Contract schedule and monitoring actual progress as compared to Progress Schedule rests with Contractor.

- H. Failure of Progress Schedule to include any element of the Work or any inaccuracy in Progress Schedule will not relieve Contractor from responsibility for accomplishing the Work in accordance with the Contract. Owner 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 Owner, or act to relieve Contractor of its responsibility for means and methods of construction.
- I. Transmit to Owner by email, no less than monthly, current progress schedule in electronic form, to include the entire electronic file without abridgment, inclusive of all updates.

ARTICLE II. PRODUCTS

2.01. Scheduling Software

- A. Utilize latest version of Microsoft Project computer-scheduling software, for all scheduling including schedule updates, and employ scheduling personnel experienced and competent in it. For all activities or impacts shown in schedule, Contractor shall complete all data points in the software to specifically include the activities, their durations, their logic ties and their resources.
- B. Each Schedule (Preliminary, Baseline, Official and updates) shall indicate all separate fabrication, procurement and field construction activities required for completion of the Work, including but not limited to the following:
 - 1. All Contractor, Subcontractor, and assigned Contractor work shall be shown in a logical work sequence that demonstrates a coordinated plan of work for all contractors. The intent is to provide a common basis of acceptance, understanding, and communication, as well as interface with other contractors.
 - 2. Activities related to the delivery of Contractor and Owner-furnished equipment to be Contractor-installed per Contract shall be shown.
 - 3. All activities shall be identified through codes or other identification to indicate the building (i.e. buildings, Site work) and Contractor/Subcontractor responsibility to which they pertain.
 - 4. Break up the Work schedule into activities of durations of approximately twenty-one (21) Work Days or less each, except for non-field construction activities or as otherwise deemed acceptable by Owner.
 - 5. Show the critical path in red. For each activity, show early start, late start, early finish, late finish, durations measured in Days, float, resources, predecessor and successor activities, planned workday/week for the activity, material quantities, and scheduled/actual progress payments.
- C. Seasonal weather conditions (which do not constitute a delay as defined herein) shall be considered in the planning and scheduling of all work influenced by high or low ambient temperatures or presence of high moisture for the completion of the Work within the allotted Contract Time.
- D. Failure by Contractor to include any element of Work required for performance of the Work on the detailed construction schedule shall not excuse Contractor from completing all Work required within the Contract Time.

- E. A three-week "look ahead," detailed daily bar chart schedule shall be updated and issued weekly in hard copy and electronically.
- F. Monthly updates shall include schedule sorts in hard copy, by bid item (geographic work area) with critical items shown in red float and with early/late start and finish dates, to facilitate meaningful review and assessment of schedule.

ARTICLE III. EXECUTION

3.01. Basic Progress Schedule Requirements

- A. Unless a computerized CPM Progress Schedule is required, Contractor must submit a Basic Progress Schedule within twenty-one (21) Days of the start date for the Work stated in the Notice to Proceed. The Basic Progress Schedule submittal must include three (3) schedule prints (plots) and corresponding electronic data files on Compact Disks (CDs). The CDs must be permanently labeled to indicate the contents of the CD and include the submittal number and data date.
- B. Owner will review the Basic Progress Schedule for conformance with the requirements of the Contract Documents. Within twenty-one (21) days after receipt, Owner's Project Manager will accept the Basic Progress Schedule or return it with comments, in which case Contractor must revise and resubmit the Basic Progress Schedule.
- C. After acceptance of the Basic Progress Schedule by Owner, it will become the initial version of the Official Progress Schedule.
- D. With the Basic Progress Schedule submission, Contractor must submit an anticipated monthly billings report indicating Contractor's estimated per month billings over the life of the Project. The report must show the anticipated monthly billing and estimated cumulative billed to date value for each month of the Contract Time. Submit three (3) paper copies and corresponding electronic data files on Compact Disks (CDs). The CDs must be permanently labeled to indicate the contents of the CD and include the submittal number and data date.

3.02. CPM Progress Schedule

- A. General Requirements.
 - 1. When indicated in the Notice to Bidders, Contractor must submit a CPM Progress Schedule.
 - 2. Personnel preparing CPM Progress Schedules must be qualified and experienced in preparing Critical Path Method ("CPM") schedules and must be capable of producing the schedules and reports required by this Document. At least seven (7) Days prior to the Schedule Orientation Meeting, Contractor must submit for Owner acceptance, three (3) copies of the qualifications of Contractor's proposed scheduler including references from the owner on the last three (3) recent projects where the proposed scheduler prepared the required project schedules. Owner's acceptance of Contractor's proposed scheduler may be withheld until twenty-one (21) days after Contractor's Baseline Schedule Submission.
 - 3. Contractor must use scheduling software as required by Document 01 3200.
 - 4. Contractor must provide Owner with three (3) copies (plots) of each schedule submission and electronic copies of the schedule data files on Compact Disks

(CDs). The CDs must be permanently labeled to indicate the contents of the CD and include the submittal number and data date.

5. The Project Time for completion of the entire Project and the Milestone times must adhere to the start and finish times stated in the Contract Documents, unless Contractor formally requests and Owner's Authorized Representative Approves in writing earlier (advanced) time(s) of completion. Approval of such request shall be at Owner's discretion and must be in the form of a Change Order.
6. Float Time is not for the exclusive benefit of either Contractor or Owner. Contractor must not include contingency activities.
7. Failure of the Official Progress Schedule to include an element of the Work required for performance of this Contract, or inaccuracy in Official Progress Schedule, will not relieve Contractor from responsibility for accomplishing all the Work required and will not constitute grounds for delay.
8. Failure of Contractor to substantially comply with requirements of this Document 01 3200 will constitute a failure by Contractor to prosecute Work with such diligence as will ensure its completion within Contract Time(s) and may be considered grounds for termination or other remedy by Owner pursuant to terms of this Contract.

3.03. Schedule Orientation Meeting

- A. Within seven (7) Days of the official Contract start date stated in the Notice to Proceed, Owner's Project Manager will conduct a Schedule Orientation Meeting to review the requirements of the Contract Documents for preparing, submitting, updating, and revising the various Project schedules. This is a separate meeting from the Preconstruction Conference and is dedicated exclusively to discussions about the scheduling requirements for the Project.
- B. Contractor must review the requirements of the Contract Documents related to scheduling prior to the meeting and be prepared to discuss its general approach to meeting the requirements. This meeting must be attended by:
 1. Owner's Project Manager or designee.
 2. Contractor's Authorized Representative and scheduler.
 3. Representatives from Subcontractors
 4. Any other personnel deem advisable to attend by Owner or Contractor.
- C. The following items will be reviewed and discussed during the meeting:
 1. Qualifications of Contractor's scheduler
 2. Schedule preparation and submission requirements
 3. Level of involvement of Subcontractors in the schedule development effort
 4. Resource loading
 5. Schedule updates.
 6. Schedule revisions.

7. Recovery Schedules
8. Short Interval Schedules (SIS)
9. Cost Breakdown and activity cost loading
10. Payment for Mobilization
11. Establishing the time element of Change Orders.
12. Monthly Earnings Forecast
13. Interface Flags
14. Holidays and Hours of Work
15. Technical Scheduling Requirements
16. Data exchange and communication.

3.04. Preliminary Contract Schedule

- A. No later than twenty-eight (28) Days after the start date for the Work stated in the Notice to Proceed, Contractor must submit three (3) prints (plots) of a Preliminary Contract Schedule and corresponding schedule data files on Compact Disks (CDs). The CDs must be permanently labeled to indicate the contents of the CD and include the submittal number and data date.
- B. The Preliminary Contract Schedule must be a time-scale, resource loaded, precedence CPM diagram. The data/status date for the Preliminary Contract Schedule must be the first day of the Contract Time as stated in the NTP.
- C. The Preliminary Contract Schedule must include:
 1. The Contractor's general plan of Work in accordance with the Milestones and Project Time(s) stated in the Contract Documents.
 2. Details of Contractor's planned mobilization.
 3. Sequence of early operations including procurement of materials and equipment for a minimum of 90 days from the official Contract start date stated in the Notice to Proceed.
 4. All mandatory activities, sequences, and durations required in the Contract Documents including but not limited to:
 - a. A start Milestone for the Notice to Proceed.
 - b. An activity for verification of all existing conditions and dimensions.
 - c. An activity for installation of temporary site enclosure fence.
 - d. All completion Milestones.
 - e. All Owner Inspection and Punchlist activities preceding each completion Milestone. The durations for each of these activities must be consistent with the durations allowed by the Contract Documents.
 - f. All equipment and system Performance Periods (run-in periods).
 - g. Key Commissioning activities and sequences.

- D. Owner will review the Preliminary Contract Schedule for conformance with the requirements of the Contract Documents. Owner will return the Preliminary Contract Schedule with comments within twenty-one (21) Days after receipt.
- E. Contractor must use the Owner accepted Preliminary Contract Schedule with Owner's comments as the basis for the Baseline Schedule submission. Unless otherwise requested by the Contractor and approved in writing by the Owner's Project Manager, the activities, durations, and logic that appear in the Owner accepted Preliminary Contract Schedule must remain unchanged in the Baseline Schedule submission.

3.05. Baseline Schedule

- A. Within fourteen (14) Days from the official Contract start date stated in the Notice to Proceed, Contractor must submit a Baseline Schedule presenting an orderly and realistic plan for completion of the entire Work of the Project including consideration of and compliance with all Milestones, activity sequencing, activity durations, and other scheduling restrictions imposed by the requirements of the Contract Documents. The Baseline Schedule submittal must include three (3) schedule prints (plots).
- B. The Baseline Schedule submission must include and/or comply with the following minimum requirements:
 - 1. Provide a time scaled, cost and resource loaded CPM schedule in precedence format.
 - 2. Show the plan for completion of the Work for each Milestone within the time(s) specified. Each activity must be coded to its corresponding Milestone.
 - 3. Dates Contractor requests access to areas requiring removal of Asbestos containing materials by Owner.
 - 4. Provide a list identifying all imposed restraints.
 - 5. Activity Calendars:
 - a. Indicate all activity calendars used.
 - b. All activity calendar(s) must identify workdays, holidays, and shift work (by trade).
 - c. All activity calendar(s) must include:
 - (i) All work hour restrictions including but not limited to CEQA requirements, anticipated weather delays, and restriction imposed by local Governmental Agencies.
 - (ii) All workday activity calendars must have the same holidays unless approved in writing by the Project Manager.
 - (iii) All activity calendars must cover entire Contract Time. The global seven-day/week activity calendar must have no non-work days.
 - 6. All completion Milestones required by the Contract Documents must be shown on the specific Milestone completion date(s) identified in the Contract Documents and must be attached to a seven-day/week activity calendar. The seven-day/week activity calendar must have no non-work days.

7. Include dependencies (relationships) and logic ties between activities.
8. Open-ended activities are not permitted.
9. Unless otherwise Approved in writing by Owner's Project Manager, no single activity on the schedule shall have a duration longer than fifteen (15) workdays, except for fabrication, installation, procurement, Punch List, and equipment commissioning (run-in) activities.
10. Activity durations shall be the total number of actual days required to perform each activity. The consideration of weather impact on completion of the Work must be included in the associated activity calendar and not included in individual activity durations.
11. No single activity shall have more than one Subcontractor responsible for its performance.
12. For Subcontractor activities, include a responsibility code for each activity corresponding to the Subcontractor responsible for performing the Work.
13. The sum of the values of all activities performed by a Subcontractor must equal the Subcontract value of the Subcontract between the Contractor and the Subcontractor.
14. Unless otherwise Approved by the Owner's Project Manager, the Contractor must indicate cost resources by US dollars (\$) for all cost resources. Contractor's overhead (including general conditions costs), and profit must be proportionally prorated over all cost loaded activities as a fixed percentage of the value of the activity. Except as otherwise Directed or Approved by Owner, activities that are not directly associated with the cost of Work-in-place, such as mobilization, temporary facilities, and Submittal preparation must not be cost loaded.
15. The sum of the values of all the activities in the Baseline Schedule must equal the total Contract Sum.
16. Include (resource load) manpower requirements, by prevailing wage classification, for each activity. Unless otherwise Approved by the Owner's Project Manager, Contractor must indicate manpower resource requirements by man-days (MD) for all manpower resources.
17. Include (resource load) the major construction equipment required to perform each activity. Unless otherwise Approved by the Owner's Project Manager, Contractor must indicate equipment resource requirements by equipment hours (EH) for each major piece of construction equipment.
18. Unless otherwise specifically Approved in writing by the Owner's Project Manager, if the start of an activity depends on the Owners acceptance of a Submittal(s), identify as two (2) separate preceding activities the preparation and review of the Submittal(s).
19. Unless a longer period is specifically stated in the Contract Documents, Owner will have a minimum of 21 Days to review Complete Submittals.
20. Do not schedule activities that are dependent on Submittal acceptance or material delivery to start earlier than the expected approval or delivery dates.

21. Identify as separate activities procurement of major equipment and materials. At a minimum, procurement of major equipment and materials must include the following five (5) dependent activities:
 - a. Place purchase order
 - b. Prepare Submittal
 - c. Review and accept Submittal
 - d. Fabricate/Manufacture
 - e. Delivery
22. Identify as separate activities the installation of all Owner Furnished Items. If Contractor requires product installation information for Owner Furnished Items, include specific interface flags indicating when product installation information is required.
23. If required, include activities for all equipment/systems Performance Period(s). Performance Period activities must occur after operational testing is completed and before Contractor certifies the Work of the Milestone is complete.
24. Include individual activities for the final clean-up effort associated with each Milestone and the final cleanup of the entire Project.
25. Include activities for Contractor completion certification for each Milestone and Project Completion Certification.
26. Include activities and indicate the number of Days (21 Days) allowed for the Owner to perform Milestone and Project completion inspections.
27. Show the number of days needed by the Contractor to correct deficiencies in the completed Work (Punch List durations) for each Milestone and final Project completion.
28. The duration for Contractor's Punch List activities must not be less than thirty (30) Days. Punch list activities must be shown as starting no earlier than Contractor's receipt of Owner prepared Punch List.
29. Include interface flags for all points of coordination with the work of other contractors engaged by Owner at the Project Site.
30. With the Baseline Schedule Submission, Contractor must submit a monthly earnings forecast indicating the Contractor's estimated per month and cumulative-to-date billings to the Owner over the entire Contract Time. The report must include a cash flow envelope diagram, based on the Contractor's cost loaded Baseline Schedule, showing the cumulative total cost for early start and late finish from the start of the Project to its completion. Submit three (3) paper copies and corresponding electronic data files on Compact Disks (CDs). The CDs must be permanently labeled to indicate the contents of the CD and include the submittal number and data date.
31. The data/status date for the Baseline Schedule must be the first day of the Contract Time as stated in the NTP.

32. Show each Milestone required by the Contract Documents as independent. Do not tie (link) milestones together.
 33. All Milestones required by the Contract Documents must be shown on the specific Milestone completion date identified in the Contract Documents and must be attached to a seven-day activity calendar.
 34. Include a Project start milestone for the Notice to Proceed (NTP)
 35. Unless otherwise requested by the Contractor and approved in writing by the Owner's Project Manager, the activities, durations, and logic that appear in the Owner accepted Preliminary Contract Schedule must remain unchanged in the Baseline Schedule submission
 36. Activities must be included for all required reviews, approvals, and permits performed by or issued by regulatory agencies.
 37. Activities must be included for final submission of Record Documents (as-built Drawings and Project Manual) and other key closeout activities.
- C. If Owner provides Activity ID Code guidelines, Activity Code requirements, or activity Interface Flag requirements to the Contractor for the purpose of merging the Contractor's Baseline Schedule into the Owner's master Project Schedule, Contractor must comply with these requirements and restrictions.
- D. Owner will review the Baseline Schedule submission for conformance with the requirements of the Contract Documents. Within twenty-one (21) Days after receipt, Owner's Project Manager will accept the Baseline Schedule or will return it with comments. If the Baseline Schedule is returned with comments, Contractor must revise the schedule to incorporate the comments and resubmit within three (3) Days.
- 3.06. Official Progress Schedule
- A. The Owner accepted Baseline Schedule becomes the initial version of the Official Progress Schedule.
 - B. The Official Progress Schedule must not be revised without the prior written Approval of the Owner's Project Manager.
- 3.07. Monthly Update Of The Official Progress Schedule
- A. Contractor must submit a monthly update to the Official Progress Schedule. All updates must be submitted with three (3) prints (plots) of the Updated Official Progress Schedule.
 - B. The submission of the Updated Official Progress Schedule must coincide with the end date of the monthly progress payment period.
 - C. The Updated Official Progress Schedule must include:
 1. Contractor's estimated percentage complete for each activity not yet complete.
 2. Actual start/finish dates for each activity.
 - D. The Updated Official Progress Schedule must **not** include:
 1. Added or deleted activities
 2. Changes to the network logic

3. Changes to the cost or resource loading
 4. Any other changes, revisions or modifications of any kind
- E. Owner's Project Manager will meet with Contractor at the Project Site to verify the Contractor's estimate of the percentage complete for each activity not yet complete. If agreement cannot be reached on the actual progress for any activity, Owner's determination will be used.
- F. If, during the updating process, it is discovered that actual progress is posted against out of sequence activities, before submission of the next Updated Official Progress Schedule, Contractor must submit a Revision Request to the Owner, revising the schedule logic to be consistent with the actual progress and sequence of the Work.
- G. Special Reports
1. Owner may request, from month-to-month, any two of the following special reports:
 - a. Total Float Time sorted from least to most.
 - b. Activities sorted by early start.
 - c. Activities sorted by late start.
 - d. Activities grouped by subcontractor, selected trades or buildings.
 - e. Activities with scheduled early start dates in a given time frame (i.e. 30-day or 60-day outlook).
 - f. A manpower report based on actual person hours per month and compared to total planned person hours per month for early start and late start of the activities.

3.08. Revised Official Progress Schedule

- A. A Revised Official Progress Schedule must be submitted by the Contractor whenever the Contractor desires to change its sequence or method of construction, add or delete activities, change logic ties or restraints, change activity durations, modify cost or resource loading, incorporate Approved Change Orders into the schedule, or whenever Directed by Owner's Project Manager.
- B. All revision requests must be in writing, must explain in narrative why each activity change or revision is being requested, and must be based on the most recent Owner accepted Updated Official Progress Schedule
- C. When out of sequence activities appear in the Updated Official Progress Schedule, Contractor must submit a Revised Official Progress Schedule. The Revised Official Progress Schedule must incorporate a revised schedule logic that conforms to current job status.
- D. All Revised Official Progress Schedule revision requests must be submitted with three (3) prints (plots) of the requested revisions and must also be submitted via email.
- E. If the Owner's Project Manager accepts the Revised Official Progress Schedule, it will become the new current version of the Official Progress Schedule.
- F. If Owner provides additional Interface Flag requirements to the Contractor for the purpose of coordinating the Contractor's schedule with the Schedules of other contractors or the

Owner's master Project Schedule, Contractor must revise their schedule to incorporate the Interface Flags at no additional cost to the Owner.

3.09. Short Interval Schedule

- A. An updated Short Interval Schedule (SIS) must be submitted to the Owner at each Progress Meeting. Each attendee at the Progress Meeting must be provided One (1) copy of the SIS.
- B. The Short Interval Schedule must be submitted throughout the entire Contract Time.
- C. The Short Interval Schedule must be a four-week schedule and include the past week, the week submitted, and two weeks thereafter.
- D. The Short Interval Schedule must contain sufficient detail to evaluate daily progress and manpower/equipment loading and must correlate with the current version of the Official Progress Schedule and reference the appropriate activity numbers.
- E. The Short Interval Schedule must indicate all planned and actual tests and inspections. (See also Document 01 4300.1.09.G)

3.10. Recovery Schedule

- A. If any activity falls more than 21 Days behind schedule, upon Owner's request, Contractor must submit a Recovery Schedule within five days indicating how Contractor intends to make up the lost time. Form and detail of the Recovery Schedule must be appropriate to explain and display how Contractor intends to reschedule delinquent activities to regain compliance with the Contract Time(s). Submit three copies (plots).
- B. If the Owner's Authorized Representative accepts the Contractor's Recovery Schedule, Contractor must submit a Revised Official Progress Schedule revision request as required by Document 01 3200.3.08 above. The Revised Official Progress Schedule must be based on and limited to the modifications indicated in the Recovery Schedule and accepted by the Owner's Authorized Representative.

3.11. Cost Breakdown

- A. For the Preliminary Contract Schedule. Contractor must submit with the Preliminary Contract Schedule three (3) copies and corresponding electronic data files via email of a Cost Breakdown covering the activities shown as starting during the first 90 days of the Preliminary Contract Schedule. This Cost Breakdown must differentiate costs of labor, equipment, materials, overhead (including general conditions costs) and profit and shall be subject to Owner's acceptance. The Owner accepted Cost Breakdown will be used as a basis for progress payments during the first 90 days.
- B. For the Baseline Schedule. Contractor must submit with the Baseline Schedule a Cost Breakdown covering each activity in the Baseline Schedule. This Cost Breakdown must differentiate costs of labor, materials, equipment, overhead (including general conditions costs) and profit, and shall be subject to Owner's acceptance. The Owner accepted Cost Breakdown will be used as a basis for monthly progress payments during the entire Contract Time. Submit three (3) paper copies and corresponding electronic data files via email
- C. Except as otherwise Directed or Approved by Owner, activities that are not directly associated with the cost of Work-in-place, such as mobilization, temporary facilities, and

Submittal preparation must not be cost loaded. (See Document 01 2900, "Payment Procedures" for additional requirements concerning the Cost Breakdown)

- D. A Cost Breakdown may be rejected if in Owner's opinion any item is unbalanced.

3.12. Time Extensions

- A. When Contractor is directed to proceed with changed work or otherwise requests a time extension, Contractor shall prepare and submit, within five (5) Days from the direction to proceed, a Time Impact Analysis (TIE) that includes both a written narrative and a schedule diagram depicting how the changed work affects other schedule activities. The schedule diagram shall show how Contractor proposes to incorporate the changed work in the schedule, and how it impacts the current Schedule update critical path or otherwise. Contractor is also responsible for requesting time extensions based on the TIE's impact on the critical path. The diagram shall be tied to the main sequence of scheduled activities to enable Owner to evaluate the impact of changed work to the scheduled critical path. Use attached form. Comply with their requirements of paragraph 3.12.A. of this Document 01 3200 for all types of delays such as, but not limited to, Contractor/Subcontractor delays, adverse weather delays, strikes, procurement delays, fabrication delays, etc. Contractor is responsible for all costs associated with the preparation of TIEs, and the process of incorporating TIEs into the current schedule update. Provide Owner with four copies of each TIE both in hard copy and CD.
- B. Contractor is responsible for requesting time extensions for time impacts that, in the opinion of Contractor, impact the critical path of the current schedule update. Notice of time impacts shall be given in accordance with Document 00 7200 (General Conditions).
- C. Where an event for which Owner is responsible impacts the projected Substantial Completion date, 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. Contractor shall also include a detailed cost breakdown of the labor, equipment, and material Contractor would expend to mitigate Owner-caused time impact. Contractor shall submit mitigation plan to Owner within seven (7) Days from the date of discovery of said impact. Contractor is responsible for the cost to prepare the mitigation plan.
- D. Failure to request time, provide TIE, or provide the required mitigation plan will result in Contractor waiving its right to a time extension and cost to mitigate the delay.
- E. No time will be granted under the Contract Documents for cumulative effect of changes.
- F. Owner will not be obligated to consider any time extension request unless requirements of Contract Documents are complied with.
- G. Failure of Contractor to perform in accordance with the current schedule update shall not be excused by submittal of time extension requests.
- H. Notwithstanding any other provision of this Document 01 3200, if Contractor does not submit a TIE within the required seven (7) Days for any issue, Contractor hereby agrees that Contractor does not require a time extension for that issue.
- I. If the Owner's Authorized Representative Approves a time extension request, a Change Order extending the Contract Time will be issued.

- J. Upon receipt of an executed Change Order, modifying the Contract Time, or earlier if Directed in writing by the Owner, Contractor must submit a request for revision to the Official Progress Schedule. The revision request must be based on and limited to the modifications to the Contract Time identified in the Change Order. Submit three (3) copies and corresponding electronic data via email.
- K. Owner is not obligated to consider time extension requests unless the requests are made in accordance with the requirements of the Contract Documents.

3.13. Submittal Log

- A. Within fourteen (14) Days after the Contract start date stated in the Notice to Proceed, Contractor must Submit three (3) copies of a Submittal Log and corresponding electronic data files via email. Submittal Log must be prepared in accordance with the requirements of Document 01 3320, (Submittal Log).
- B. Unless otherwise specifically stated in the Contract Documents, no Submittal shall show an Owner's review and return duration of less than twenty (21) Days.
- C. Owner may refuse to take action on any Submittal without prior receipt and acceptance of the Submittal Log.
- D. Submittals must indicate the corresponding activity numbers on the Contractor's Preliminary Contract Schedule.
- E. Each week, on a day agreed to between Contractor and Owner's Project Manager, Contractor must review the Submittal Log with the Owner's Project Manager. If requested by the Owner's Project Manager prior to the weekly meeting, Contractor must provide the Owner's Project Manager with two (2) copies of an updated Submittal Log and corresponding electronic data files on Compact Disks (CDs) indicating the current status of all required Submittals. The CDs must be permanently labeled to indicate the contents of the CD and include the submittal number and data date.
- F. The updated Submittal Log must be grouped by Definable Feature of Work and include, at a minimum, the following information for all Submittals and resubmittals in accordance with the Contract Documents:
 - 1. A unique Submittal tracking number
 - 2. Description of the Submittal
 - 3. Date required by Contract Documents for submission of Submittal to Owner
 - 4. Owner's Distribution Group (Owner's parallel reviewers)
 - 5. Total number of Copies of Submittal required to be Submitted to Owner's reviewers
 - 6. Anticipated date Contractor will receive Submittal information from Subcontractor/Supplier.
 - 7. Actual date Contractor received Submittal information from Subcontractor/Supplier.
 - 8. Anticipated Date for Submission to Owner
 - 9. Actual Date Transmitted to Owner

10. Owner Review Time allowed by Contract Documents (No less than 21 Days)
 11. Cross reference to corresponding activity number on Contractor's Progress Schedule
 12. Project Manual section(s) requiring submission of Submittal
 13. Actual date when Contractor received Submittal(s) back from Owner
 14. Owner's action on Submittal (No Exceptions Taken, Make Corrections Noted, Revise and Resubmit, or Rejected)
 15. Submittal Type (Type 1 or Type 2)
 16. Submittal Designation
 17. Definable Feature of Work (DFOW)
 18. Comments/Remarks
- G. After acceptance of the Contractor's Submittal Log by the Owner, Contractor must make all Submittals in accordance with the "Anticipated Date for Submission to Owner" indicated in the Log. Owner has the right to return all Submittals to the Contractor "Returned Without Review," if the Submittal is submitted prior to the "Anticipated Date for Submission to Owner" indicated in the accepted Contractor's Submittal Log.
- 3.14. Project Reports
- A. Contractor's Daily Report.
1. Contractor must submit a Contractor's Daily Report, in a form prescribed or accepted by Owner, for each day worked. At a minimum the report must indicate:
 - a. All workers by trade
 - b. Subcontractor activity
 - c. Activity identification number(s)
 - d. Cost Breakdown number(s) if a Basic Project Schedule is required
 - e. Equipment on site
 - f. Material deliveries
 - g. Tests and Inspections performed
 - h. Infection Control
 - i. Interim Life Safety
 - j. Weather conditions
 - k. Other significant items
 2. Each Contractor's Daily Report must be submitted no later than the following day.
- B. Procurement Status Log.
1. Contractor must submit three (3) copies and corresponding electronic data files via email of a Procurement Status Log not later than twenty-one (21) Days after the start date for the Work stated in the Notice to Proceed.

2. The Procurement Status Log must include:
 - a. A complete list of items to be purchased that require acceptance by the Owner of a Submittal
 - b. The Submittal tracking number from the Submittal Log that uniquely identifies the Submittal.
 - c. The corresponding CPM activity identification number from the Preliminary Contract Schedule, Baseline Schedule, or Official Progress Schedule as available.
 - d. The date the purchase order was placed or is anticipated to be placed
 - e. If the purchase order is placed, indicate the purchase order number, name of the Supplier, and Fabricator or Manufacturer of each item
 - f. The time required by the vendor to prepare the Submittal
 - g. The review and approval duration for the Submittal (21 Days)
 - h. The anticipated duration of Fabrication/Manufacture
 - i. The delivery duration
 - j. The anticipated delivery date
 - k. The actual delivery date
 3. Each month, the Procurement Status Log must be updated and submitted with the Updated Official Progress Schedule or more frequently if requested by Owner's Project Manager. Submit three (3) copies of updated Procurement Log and corresponding electronic data files via email.
 4. If requested by Owner's Project Manager, Contractor must submit two (2) copies of each purchase order *issued by Contractor or Subcontractors*.
- C. Other Reports
1. Contractor must submit to Owner, as specified or Directed, copies of all other reports required by the Contract Documents or other Governmental Agencies including but not limited to:
 - a. Certified Payroll
 - b. Hazardous Materials list(s)
 - c. Copies of incident or accident and injury reports
 - d. Force Account Reports and Documentation
 - e. Monthly Progress Payment Requests

ARTICLE IV. FORMS (NOT USED)

END OF DOCUMENT 01 320

DOCUMENT 01 3250
RECORD DOCUMENTS (AS-BUILTS)

ARTICLE I. GENERAL

1.01. Summary

- A. This Document includes:
 - 1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 – Related Documents and Sections
 - c. 1.03 – Definitions
 - d. 1.04 - Record Documents
 - e. 1.05 - Concealed Work
 - f. 1.06 – Maintenance of documents and samples
 - g. 1.07 – Record Set
 - h. 1.08 - Progress Payments
 - i. 1.09 - Closeout and Acceptance of the Work
 - j. 1.10 – Submittals
 - 2. Article II – Products (Not Used)
 - 3. Article III – Execution (Not Used)
 - 4. Article IV – Forms (Not Used)

1.02. Related Documents And Sections (Not Used)

1.03. Definitions

- A. As-Builts. A set of the Contract Documents including Drawings and Project Manual updated on a continuous basis to indicate conditions encountered and the final configuration of a Project as it was constructed. As-Builts include any change or clarification to the Contract Documents and dimensional information showing the actual locations of Installed components of the Work. (Also known as “Record Documents” or “As-Built Documents.”)
- B. Record Set. Project Manual, Drawings, Addenda, Change Orders, Field Modifications, Requests for Information (RFI), Submittals, Product Data, Samples, Shop Drawings, Field Test and inspection records, and Coordination Drawings located at the Project Site.

1.04. Record Documents

- A. As-Builts Drawings.
 - 1. Contractor must maintain at the Project Site at least one set of As-Built Drawings indicating the actual configuration of the Project as it is constructed.

2. The Contractor must maintain the As-Built Drawings in good and current condition and post all changes and clarifications to the As-Built Documents on a daily basis.
 3. Contractor must handle the As-Built Drawings with great care, must not use the As-Built Drawings for any other purpose, and must keep them clean and readable.
 4. The As-Built Drawings must provide sufficient detail to make it possible to correctly and easily locate, identify, and establish sizes and routing of all piping and the like, as well as other features of concealed Work.
 5. The As-Built Drawings must indicate, by appropriate notations in the As-Built Drawings, all modifications or changes made to the Drawings by Addenda, Change Order, RFI, or Field Modification.
 6. If Work is installed differently from, or in a location other than that shown on the Drawings, or if Contractor finds existing conditions to be different than indicated on the Drawings, Contractor must accurately note such variations on the As-Built Drawings in red pencil on a daily basis as the Work progresses.
 7. Label each page of the field set of the As-Built Drawings, "As Built Record Drawings" in neat large printed letters in the lower right hand corner.
 8. Contractor must post to the As-Built Drawings on a daily basis all:
 - a. Addenda
 - b. Changer Orders
 - c. Field Modifications
 - d. Requests for Information
 - e. Approved Product Substitutions
 - f. All other details and dimensions not on the Bid Documents
- B. As-Built Project Manual.
1. Contractor must post to the As-Built Project Manual on a daily basis:
 - a. All modifications or changes made to the Project Manual by:
 - (i) Addenda
 - (ii) Change Order
 - (iii) Field Modification
 - (iv) Request for Information (RFI)
 - (v) Approved Product Substitutions
 - (vi) All other information not in the Bid Documents
 - b. The Products selected and used in the Work of the Project. For each Product actually Provided and/or Installed, legibly mark each section of the Project Manual to record Manufacturer, Trade name, Catalog number, and Supplier

1.05. Concealed Work

- A. The As-Built Documents must indicate the locations of underground Work and Work concealed inside any construction.
 - B. Do not conceal any Work until required information is recorded in the As-Built Documents.
 - C. The specific location of all turns, centerline, invert elevations and rates of fall in underground and concealed Work must be indicated.
 - D. Dimensions to column lines, walls or other prominent features must be used for proper reference.
 - E. Legibly mark to record actual construction:
 - 1. Depths of various elements of foundation in relation to finish first floor datum.
 - 2. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - a. Give sufficient horizontal and vertical dimensions to accurately trace route and invert of each concealed line or item.
 - b. Accurately locate each capped, plugged or stubbed line.
 - 3. Location of internal utilities and appurtenances concealed in the Work, referenced to visible and accessible features of the structure.
 - a. Give sufficient horizontal and vertical dimensions to accurately trace route and invert of each concealed line or item.
 - b. Accurately locate each capped, plugged or stubbed line.
- 1.06. Maintenance Of Documents And Samples
- A. Store As-Built Documents in Contractor's field office apart from documents used for construction.
 - B. Provide files and racks for storage of As-Built Documents.
 - C. File Record Set documents in accordance with CSI format.
 - D. Maintain all documents in a clean, dry, legible condition and in good order.
 - E. Do not use As-Built Documents for construction purposes.
 - F. Make As-Built and Record Set documents available at all times for inspection by Owner's Project Manager.
- 1.07. Record Set
- A. Contractor must maintain at the Project Site at least one (1) copy of the Record Set including but not limited to:
 - 1. Project Manual (Bid Documents)
 - 2. Drawings (Bid Documents)
 - 3. Addenda
 - 4. Change Orders
 - 5. Field Modifications

6. Requests for Information (RFI)
 7. Submittals
 8. Product Data
 9. Samples
 10. Shop Drawings
 11. Test and inspection records
 12. Coordination Drawings
 13. Approvals from Government Agencies and regulatory authorities
 14. All Correspondence
- B. Record Product Data.
1. Maintain one copy of each Owner accepted Product Data Submittal at the Project Site.
 2. Mark-up changes in actual Work in comparison with submitted information.
 - a. Include both variations in product as delivered to Project Site and variations from manufacturer's instructions and recommendations for installation.
 - b. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned at a later date by direct observation.
 3. Note Related Change Orders, if any.
- 1.08. Progress Payments. The Inspector shall review the As-Built Documents prior to and as a condition of approving each progress payment.
- 1.09. Closeout And Acceptance Of The Work
- A. Contractor must transfer all entries from the As-Built Documents that were maintained at the Project Site to a complete set of Record Documents consisting of reproducible copies of the As-Built Drawings and hard copies of the As-Built Project Manual.
 - B. Contractor must mark the drawings "As-Built Record Drawings" and mark the As-Built Project Manual "As-Built Record Project Manual."
 - C. Contractor must sign each drawing in the final set of As-Built Drawings and sign the cover of the final As-Built Project Manual.
 - D. The Work shall not be recommended for Acceptance until Owner's Project Manager receives satisfactory Record Documents from Contractor.
- 1.10. Submittals
- A. Submit three (3) paper copies of all Record Documents (As-Built) and three (3) electronic copies on compact disk.
 - B. Accompany submittal with a transmittal letter, in duplicate, containing:

1. Date
 2. Project title and number
 3. Contractor's name and address
 4. Title and number of each Record Document (As-Built)
 5. Signature of QC Manager or Contractor's Authorized Representative
- C. Samples.
1. Within fourteen (14) Days of Contractor's certification of completion and request for Final Inspection, Owner's Project Manager will meet with Contractor at Project Site to determine which, if any, of submitted samples maintained by Contractor during progress of the Work shall be transmitted to Owner for record purposes.
 2. Comply with Owner's instructions for packaging, identification marking, and delivery to Owner's sample storage space.
- D. Submit evidence of compliance with the requirements of Governing Agencies and regulatory authorities.
1. Certificates of Inspection:
 - a. Elevators
 - b. Fire Marshal
 2. Other Certificates: Occupancy Certificate from local building department
 3. SWPPP Notice of Termination (NOT)

ARTICLE II. PRODUCTS (NOT USED)

ARTICLE III. EXECUTION (NOT USED)

ARTICLE IV. FORMS (NOT USED)

END OF DOCUMENT 01 3250

**DOCUMENT 01 4300
TESTING AND INSPECTION SERVICES**

ARTICLE I. GENERAL

1.01. Summary

A. This Document includes:

1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 – Related Sections
 - c. 1.03 – Definitions (Not Used)
 - d. 1.04 – Qualifications
 - e. 1.05 - Testing Equipment
 - f. 1.06 - Inspection and Testing Personnel and Facilities
 - g. 1.07 - Laboratory Reports
 - h. 1.08 - Laboratory Responsibilities
 - i. 1.09 - Contractor's Responsibilities
2. Article II – Products (Not Used)
3. Article III – Execution (Not Used)
4. Article IV – Forms (Not Used)

1.02. Related Sections (Not Used)

1.03. Definitions (Not Used)

1.04. Qualifications. Testing and inspection agency must have a minimum 5 years continuing experience preceding date of these Contract Documents.

1.05. Testing Equipment. Testing equipment must be calibrated at intervals with devices of accuracy traceable to either National Bureau of Standards or accepted values of natural physical constants.

1.06. Inspection And Testing Personnel And Facilities

A. Testing and Inspection Agency.

1. The Owner will employ and pay for the services of an independent testing and inspection agency to perform the tests and inspections required herein except where noted otherwise.
2. Employment of the testing and inspection agency shall in no way relieve the Contractor's obligation to perform the Work as required in the Contract Documents.

B. Limitations of authority of the Testing and Inspection Agency.

1. Testing and Inspection Agency is not authorized to:

- a. Release, revoke, alter, or enlarge on the requirements of the Contract Documents
 - b. Approve or accept any portion of the Work, or;
 - c. Perform any duties of the Contractor.
 - C. All Work must conform to the requirements of all applicable laws, codes, ordinances, regulations and job contract documents.
 - D. Testing and Inspection Agency must perform tests and inspections as required by the code and Contract Documents.
 - E. Testing and Inspection Agency must prepare, cure, store, and transport Project samples to the Laboratory.
- 1.07. Laboratory Reports
- A. Within two (2) workdays after each inspection and test, post inspection or test performed in the field results on Owner's approved Project Management software, report to include:
 - 1. Date issued
 - 2. Project title and number
 - 3. Name of Inspector from Testing and Inspection Agency
 - 4. Date and time of sampling or inspection
 - 5. Identification of product and Project Manual section
 - 6. Location in the Project
 - 7. Type of inspection or test
 - 8. Date of test
 - 9. Results of tests
 - 10. Conformance with Contract Documents
 - 11. Whether original test or re-test
 - 12. State/local permit number
 - B. Within 3 days from the end of any given week, a typed Summary report must be published on Owner's approved Project Management software with the aforementioned information and summary of all tests and inspections performed the week prior.
- 1.08. Laboratory Responsibilities
- A. Provide qualified, (as defined by the code) personnel at the site.
 - B. Cooperate with Project Inspector in performance of services.
 - C. Perform specified inspecting, sampling, and testing of Products in accordance with specified standards.
 - D. Ascertain compliance of materials and mixes with requirements of Contract Documents.

- E. Promptly notify Owner, Project Inspector and Contractor of observed irregularities or non-conformance of Work or Products.
 - F. Perform additional inspection and testing required by Quality Control Manager.
 - G. Attend Preconstruction Meeting and progress meetings when requested.
- 1.09. Contractor's Responsibilities
- A. Coordinate all Testing and Inspection Services required by the Contract Documents and additional tests as required by the Owner.
 - B. Provide access to Work, including off-site manufacturer or fabricator's operations.
 - C. Provide required quantities of material samples to be tested.
 - D. Samples will be selected and taken by representative of Testing and Inspection Agency.
 - E. Furnish copies of product data and test reports as required.
 - F. Furnish incidental labor and facilities:
 - 1. To provide access to work to be tested;
 - 2. To obtain and handle samples at the Project Site, or at the source of the Product to be tested or inspected;
 - 3. To facilitate inspections and tests, and;
 - 4. For storage and curing of test samples at the Project Site.
 - G. Include in the weekly Short Interval Schedule (SIS) submission activities that identify upcoming testing and inspection requirements.
 - H. Schedule the tests and inspections required by the Contract Documents and applicable codes and regulations with the IOR and the Testing and Inspection Agency, a minimum of 48 hours in advance.
 - I. Do not cover corrected Work until said Work has been re-tested and or re-inspected.
 - J. Comply with the specifications set forth in Document 01 4500, et al and other relevant sections in this document.

ARTICLE II. PRODUCTS (NOT USED)

ARTICLE III. EXECUTION (NOT USED)

ARTICLE IV. FORMS (NOT USED)

END OF DOCUMENT 01 4300

DOCUMENT 01 4500
QUALITY CONTROL (QC) PROCESS

ARTICLE I. GENERAL

1.01. Summary

- A. This Document includes:
 - 1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 - Related Documents and Sections
 - c. 1.03 - Definitions
 - d. 1.04 – References
 - e. 1.05 - Owner's Quality Control (QC) Program
 - f. 1.06 - Project QC Plan Organization
 - g. 1.07- Notification of Non-Compliance
- B. Article II – Products (Not Used)
- C. Article III – Execution (Not Used)

1.02. Related Documents and Sections (Not Used)

1.03. Definitions

- A. The following definitions as used in this Section mean:
 - 1. **Jurisdiction Having Authority (JHA)**, typically the Agency issuing permits and providing governmental oversight.
 - 2. **Corrective Action Plan** – A written document submitted by the Contractor to the Owner stating the Contractor's plan to correct an item of Work that fails to conform to the requirements of the Contract Documents. The Corrective Action Plans must be submitted with the Report of Test Results, inspection report, or Owner's Deficiency Notice no later than 10 a.m. the third workday after each failed test, inspection, or receipt by Contractor of a Deficiency Notice from the Owner.
 - 3. **Deficiency Notice** – A Report issued by the Project Inspector identifying work, which is not in compliance with the requirements of the Contract Documents, Submittals, JHA requirements and Codes. Correction by the Contractor and a request for re-inspection is required to clear the notice.
 - 4. **Quality** - Conformance to the requirements established by the Contract Documents.
 - 5. **Quality Control (QC)** - The Contractor's system in place during execution of the Work, to manage and control its own, and its Suppliers' and Subcontractors' activities to comply with the requirements of the Contract Documents.

6. **Quality Level** - The degree of excellence, basic nature, character, or kind of performance of a particular type of Work set forth in the Contract Documents.
7. **Quality Management** - Quality Control and assurance activities instituted to achieve the Quality Levels established by the Contract Documents.
8. **Deficiency List** - A written list of Work that does not comply with the requirements of the Contract Documents (Deficiency Notice), maintained by the Project Inspector, identifying the items of Work requiring correction, the date the item was originally discovered, the anticipated date for correction of the item, and the actual date of correction.
9. **Submittal Log** - A written list in a format furnished by or accepted by the Owner, indicating the status of all Submittals required by the Contract Documents, grouped by Definable Feature of Work (DFOW), and prepared and maintained by the Contractor.

1.04. References

- A. The publications listed below are part of the requirements of the Contract Documents to the extent referenced:
 1. ASTM A 880 (current edition) Criteria for Use in Evaluation of Testing Laboratories and Organization for Examination and Inspection of Steel, Stainless Steel, and Related Alloys
 2. ASTM C 1077 (current edition) Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
 3. ASTM D 3666 (current edition) Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
 4. ASTM D 3740 (current edition) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
 5. ASTM E 329 (current edition) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction
 6. ASTM E 543 (current edition) Agencies Performing Nondestructive Testing

1.05. Owner's Quality Control (QC) Program

- A. The Owner's Quality Control Program is separate, but coordinated and integrated with the Contractor's QC System, which is the means by which Contractor ensures the Quality Level required by the Contract Documents. The Owner's QC Program incorporates the Project Inspector, Testing Lab and other QC consultant's necessary for the obligations to the JHA and Owner's Project Goals. The Contractor maintains the responsibility for the coordination and implementation necessary for both systems to be successful by calling for the Owner's QC Program to be used in the appropriate timing and completion to maintain the Schedule, including re-inspections.
- B. Contractor must establish and maintain a QC System, performing sufficient inspections and tests of all items of Work, including Work of its Subcontractors and Suppliers, to

ensure conformance with the requirements of the Contract Documents. Contractor's Quality Control measures must be adequate to cover all construction operations and must be correlated with the Official Progress Schedule.

- C. Contractor must closely inspect all materials upon delivery, and all Work in progress for compliance with the requirements of the Contract Documents. Contractor must promptly reject and return all defective materials and rework any substandard Work without waiting for rejection by Owner or its' Project Inspector.

1.06. Project QC Plan Organization

- A. Project Inspector (Inspector of Record).
 - 1. Owner will provide a Project Inspector at the Work site to provide for the inspection of the work by contractor. Contractor's QC Plan should coordinate with and integrate with the Owner's Project Inspector and testing agency outlined in Section 01 4300, et al.
 - 2. Duties: The Project Inspector shall have personal knowledge, obtained by continuous inspection of all parts of the work of construction in all stages of its' progress to assure that the work is in accordance with the approved contract documents. Continuous inspection means complete inspection of every part of the work.
 - a. Immediately report to the contractor, owner and JHA any work that does not comply with requirements of the Contract Documents
 - b. Conduct inspections of Work performed to ensure compliance with requirements of the Contract Documents and codes.
 - c. Certify that all Work performed, on and off the construction site, conforms to requirements of the Contract Documents; certify that all materials and equipment delivered or installed in the Work comply with the requirements of the Contract Documents. Report any deficiencies to the owner, contractor and JHA.
 - d. Supervise and coordinate the inspections and tests made by the Owner's Testing Laboratory as defined in Document 01 4300.
 - e. Ensure that all required tests are performed and results are reported. Indicate whether test results do or do not conform to requirements of the Contract Documents.
 - f. Certify each payment invoice.
 - g. Verify completion prior to Contractor requesting Final Inspection from JHA.
 - h. Attend all key Project Meetings including Preconstruction Conference, Schedule Orientation Meeting, Progress Meetings, Demonstration and Training Meetings, and Closeout Conference.
- B. Testing Inspection and Observation Program (TI&O).

1. The TI&O will be used to assist the contractor establish his schedule and the construction schedule will reflect, in sequence, the required inspection line item. Appropriate time will be afforded for each inspection on the contractor's schedule, including the three week look ahead schedule.
 2. Although the TI&O calls for specific inspections and tests to be performed, at varying stages of construction, continuous and ongoing inspections and tests will be conducted during the entirety of the Project.
 3. Contractor is required to provide an Inspection Request utilizing the Inspection Request Form, with 48 hours' notice.
 4. Contractor is responsible to keep track of all inspections and tests, their results and any re-inspection required that is subject to the TI&O.
 5. Meetings to discuss the inspection process, upcoming inspections and personnel necessary for those inspections as well as any outstanding deficiencies will be held at an interval set at the commencement of the project, however, the interval shall, at a minimum, be once per week during the entirety of the Project.
- C. Contractor's QC Management(s) Duties and Qualifications.
1. As a minimum, Contractor shall provide **personnel** at the Project Site to coordinate with and oversee the work being performed. **No work may be performed without the Contractor's appropriate qualified personnel on site.**
 2. The Contractor's QC personnel will assist and request directly to the Project Inspector for regular inspections for all required inspections.
- D. Invoice Certification.
1. Furnish the following certification with each payment request, signed by the QC Personnel:
 - a. "The Work for which payment is requested, including Materials On Hand, is in compliance with the requirements of the Contract Documents. Record Documents ('as-built' Drawings and Project Manual) are current, accurate, and correctly show Work installed as of the date of the payment request.
 - b. Certified by QC Personnel _____,
Date _____" (Signature)
- E. Project Completion Certification.
1. Prior to requesting Final Inspection of the entire Work of the Project, the QC Personnel must furnish the following Project Completion Certification to Owner:
 - a. "The entire Work of the Project has been completed, inspected, tested and is in full compliance with the requirements of the Contract Documents except for the minor deficiencies listed in the attached Deficiency List.
 - b. Certified by QC Personnel _____,
Date _____" (Signature)
- F. Record Document Certification.

1. Accompanying submission of the final Record Documents, and prior to requesting Final Payment, the QC Personnel must furnish the following Certification to Owner:
 - a. "The attached Record Documents ('as-built' Drawings and Project Manual) for (Contract Name and Number) were prepared in accordance with the requirements of the Contract Documents, are accurate and complete, and may be relied on by the Owner to locate installed Work.
 - b. Certified by QC Personnel _____,
Date _____" (Signature)

1.07. Notification Of Noncompliance

- A. If Owner or Project Inspector notifies Contractor of any observed non-compliance with the requirements of the Contract Documents, Contractor must take immediate corrective action upon receipt of such notice. Such notice, when delivered to Contractor at the Project Site, is sufficient for the purpose of notification.
- B. If Contractor fails or refuses to promptly comply with any notice of noncompliance, Owner may, in addition to other remedies provided by law and/or the Contract Documents, issue an Order to the Contractor to suspend part or all of the Work until Contractor has taken satisfactory corrective action. No part of the cost or time expended by Contractor or its Subcontractors due to such Order to suspend Work shall be made the subject of a Dispute or Claim against Owner for extension of the Contract Time, Contract Sum, or for excess costs or damages of any kind. Contractor maintains the responsibility to perform according to the contract documents, plans, specifications and at the minimum, the code.

ARTICLE II. PRODUCTS (NOT USED)

ARTICLE III. EXECUTION (NOT USED)

END OF DOCUMENT 01 4500

DOCUMENT 01 4600
TESTING LABORATORY SERVICES

ARTICLE I. GENERAL

1.01. Contractor's Responsibilities

- A. Required Tests and Inspections. Arrange and pay for all tests and inspections required by laws, ordinances, rules, regulations, orders, etc. of Governing Authorities that are not specified to be performed by the Owner's Independent Testing Laboratory, including, but not necessarily limited to, those required by the Uniform Building Code, Section 108 - "Inspections".
- B. General. Cooperate with Governing Authorities and Laboratory personnel, provide access to Work and manufacturing operations.
 - 1. Coordination: Ensure that parts of the work required to remain visible for tests and inspections remain uncovered, and that construction operations that would interfere with testing and inspection are delayed, until testing and inspection are complete.
 - 2. Covered Work: Uncover as required.
- C. Samples. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- D. Design Mixes. Furnish to the laboratory the preliminary design mix proposed to be used for concrete and other materials which require control by the Laboratory.
- E. Manufacturer's Test Reports and Certifications. Furnish copies to laboratory when required.
- F. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples done at the project site.
- G. Schedule. Provide schedule of construction to laboratory; update as required. Allow within the construction schedule the time required for the laboratory to perform tests and issue findings. Coordinate revisions to the construction schedule with the laboratory.
- H. Advance Notification. Notify the Inspector of Record sufficiently in advance of operations, 48 hours minimum, to allow for assignment of personnel and scheduling of tests.
 - 1. Compensation: When tests or inspections cannot be performed after such notice, Contractor will reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence.

I. Contractor's Testing. Employ and pay for the services of a separate, equally qualified, independent testing laboratory to perform additional inspections, sampling and testing that may be required for the Contractor's convenience.

J. Change of Source. Pay for costs of additional inspections and tests when sources of supply are changed by Contractor.

1. Submittals: Resubmit required mix designs, certifications, etc.

1.02. Additional Testing And Inspection

A. Failure of Initial Tests. If initial inspection or testing reveals a failure of the Work to comply with the Contract Documents, the Contractor shall bear all costs for any required retesting or reinspection, including reimbursement to Owner for all additional services made necessary by such failure.

B. Other Additional Testing. If the Architect/Engineer determines that any Work requires additional inspection, testing or approval, he will, upon written authorization from the Owner, direct the Contractor to order such inspection, testing or approval.

1. Failure: If additional inspection, testing or approval reveals a failure of the Work to comply with the Contract Documents, the Contractor shall bear all costs, including reimbursement to the Owner for all additional services made necessary by such failure.

2. Compliance: If additional inspection, testing or approval indicates that the Work complies with the Contract Documents, the Owner shall bear all costs, and an appropriate Change Order shall be issued.

ARTICLE II. PRODUCTS (NOT USED)

ARTICLE III. EXECUTION (NOT USED)

END OF DOCUMENT 01 4600

**DOCUMENT 01 5800
PROJECT IDENTIFICATION AND SIGNS**

ARTICLE I. GENERAL

1.01. Summary

- A. Document Includes: Project identification sign, Project informational signs, maintenance, removal.
- B. Related Documents: Document 01 1000: Summary

1.02. Quality Assurance

- A. Design sign and structure to withstand fifty (50) miles/hr wind.
 - 1. Sign Painter: Experienced as a professional sign painter for a minimum of five (5) years.
 - 2. Finishes, Painting: Adequate to withstand weathering, fading, and chipping for duration of construction.

1.03. Submittals

- A. Document 01 3300 Submittals, shop drawings and product data. Show content, layout, lettering, color, structure, sizes, and proposed locations for signs.

ARTICLE II. PRODUCTS

2.01. Sign Materials

- A. Structure and Framing: New, structurally adequate. No wood signage permitted indoors.
- B. Sign Surfaces: Exterior grade plywood with medium density overlay, minimum 3/4 - inch thick, standard large sizes to minimize joints.
- C. Rough Hardware: Galvanized.
- D. Paint and Primers: Exterior quality, two coats; sign background of color as selected.
- E. Lettering: Exterior quality paint, contrasting colors as selected.

ARTICLE III. EXECUTION

3.01. Installation

- A. Install project identification sign within thirty (30) days after date of Notice to Proceed.
- B. Erect one Project sign at a location near to the Central Plant, with final location to be reviewed with Owner before installation.
- C. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.
- D. Paint exposed surfaces of sign supports and framing.
- E. Maintenance. Maintain sign and supports, keep clean repair deterioration and damage.

- F. Removal. Remove sign, framing, supports and foundations at completion of Project and restore area.

END OF DOCUMENT 01 5800

DOCUMENT 01 6300
PRODUCT SUBSTITUTION PROCEDURES

ARTICLE I. GENERAL

1.01. Summary

- A. This Document includes:
1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 – Related Documents
 - c. 1.03 – Definitions (Not Used)
 - d. 1.04 – General
 - e. 1.05 – Submission Requirements
 - f. 1.06 – Owner’s Action
 2. Article II – Products
 3. Article III – Execution (Not Used)
 4. Article IV – Forms (Not Used)
 5. Form 016300-F1 (Substitution Request Form)

1.02. Related Documents (Not Used)

1.03. Definitions (Not Used)

1.04. General

- A. Owner’s Authorized Representative will consider proposals for Substitution of a service, product, material, process or article at his or her discretion, only when such proposals are:
1. Submitted within the time periods stated in the Contract Documents.
 2. Accompanied by full and complete technical data.
 3. All supporting information requested by Owner’s Authorized Representative to substantiate or prove quality, delivery time, and cost are submitted
 4. Substitution request is accompanied by Substitution Request Form (Form 01 6300-F1) at the end of this Document 01 6300 (Product Substitution Procedures), properly completed by Contractor, and properly certified by the Contractor’s Authorized Representative. If the Substitution request is a pass through request from a Subcontractor, both Contractor’s Authorized Representative and an officer of the Subcontractor must certify the Substitution requests.
- B. The burden of proof as to the equality of any service, product, material, process or article Contractor proposes for Substitution rests with Contractor.
- C. The Contractor must not order substitute services, products, materials, or articles without prior written acceptance of the Substitution by Owner’s Authorized Representative.

- D. The Owner has the right to reject proposals due to insufficient information.
- E. Contractor must certify that proposed Substitution meets or exceed all the requirements of the Contract Documents.
- F. Contractor must assume responsibility for Owner's additional costs related to the redesign and/or modifications to any parts of the Work and/or Contract Documents caused by the Substitutions.
- G. Contractor's Substitution requests that do not comply with the requirements of the Contract Documents may be returned to Contractor without review.
- H. If Contractor's Substitution request is returned without review or returned rejected, Contractor must furnish the originally specified items.

1.05. Submission Requirements

- A. Submit three (3) paper copies and an electronic copy via Buzzsaw of each request for Substitution.
- B. Identify product or fabrication or installation method to be replaced including specification Section number and title and Drawing numbers and titles.
- C. Include three (3) paper copies and an electronic copy via Buzzsaw of completed and signed Substitution Request Form 01 6300-F1, furnished at the end of this Document 01 6300 (Product Substitution Procedures).
- D. Submit the following documentation:
 - 1. Statement indicating why specified material or product cannot be provided.
 - 2. Coordination information including:
 - a. A list of changes or modifications needed to other parts of the Work that are necessary to accommodate proposed Substitution.
 - b. A list of changes or modifications to work performed by Owner and/or separate contractors that are necessary to accommodate proposed Substitution.
 - 3. Detailed comparison including:
 - a. Comparison of significant qualities of proposed Substitution with those of the Work specified. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 4. Drawings to same (or larger) scale as pertinent portions of Contract Documents, marked to show:
 - a. How differences will be accommodated.
 - b. Complete system/assembly as revised.
 - c. Difference(s) in size, configuration, connections, service, accessibility, or any other significant characteristics.

5. Contractor must show complete layout of system unless it is identical to the layout shown in the Contract Documents. Show unchanged portion to indicate clearances, etc. relative to changed portion.
 6. Wherever applicable, include complete detail drawings of supports for all Substitute equipment and complete load calculations for adequacy of support prepared and signed by a California Registered Engineer.
 7. Product Data, including drawings and descriptions of Products and fabrication and installation procedures.
 8. Samples, where applicable or requested.
 9. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and Owners.
 10. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 11. Research/evaluation reports evidencing compliance with building codes in effect for Project from a model code organization acceptable to authorities having jurisdiction.
 12. Evidence that proposed product provides specified Warranty.
 13. Cost information, including a proposal of change, if any, in the Contract Sum.
- E. Submit a detailed comparison of Contractor's Progress Schedule with and without using proposed Substitution showing effect on the Contract Time(s).
- F. If specified product cannot be provided within the Contract Time(s), include letter from Manufacturer, on Manufacturer's letterhead, stating the reason(s) for the lack of availability or delays in delivery.
- G. Provide Contractor's certification that proposed Substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
- H. Provide Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed Substitution to produce indicated results.
- 1.06. Owner's Action
- A. If necessary, Owner will request additional information or documentation within fourteen (14) Days of receipt of a request for Substitution.
 - B. Owner will notify Contractor of acceptance or rejection of proposed substitution within twenty-one (21) Days of receipt of request, or seven (7) Days of receipt of additional information or documentation, whichever is later.

ARTICLE II. PRODUCTS (NOT USED)**ARTICLE III. EXECUTION (NOT USED)**

(SUBSTITUTION REQUEST FORM FOLLOWS NEXT PAGE)

FORM 01 6300-F1 – SUBSTITUTION REQUEST FORM

All Substitution requests must be accompanied by the following form, completed by the Contractor, and properly certified.

Stephens Wing SPC2 Upgrade and Kitchen Relocation
 OSHPD Project No. I170009-01-00
 Contract Number _____

Date: _____

To: ALAMEDA HEALTH SYSTEM

Attention: _____
 [ENTER OWNER ADDRESS]
 Telephone (____) [____]
 Fax: (____) [_____]

From: [INSERT CMR'S NAME/ADDRESS]

Re:

Summary of Substitution Request	
Specification Title	
Description	
Section / Page / Document / Paragraph	
Proposed Substitution	
Manufacturer	
Address / Phone	
Trade Name	
Model Number	
Installer	
Installer Address / Phone	

History: New Product 2-5 Years Old 5-10 Years Old More Than 10 Years Old

Similar Installation:

Project: _____ Architect: _____
 Address: _____ Owner: _____
 Date Installed: _____

Differences between proposed substitution and specified product:

Required point-by-point comparative data attached. Yes No

The supporting data attached consists of Drawings Product Data Samples Tests Reports Other

Proposed substitution affects other parts of Work: No If Yes, please explain: _____

Reason for not providing specified item: _____

Savings Cost to Owner for accepting substitution: \$_____

Proposed Substitution changes Contract Time. No Yes _____ Days

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 provided 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 as indicated on the current version of the Official Progress Schedule.
- Cost and time data as stated above is complete and accurate
- Contractor and, if applicable, Subcontractor waives right to Claim for additional costs and time related to accepted Substitution, which may subsequently become apparent.
- Proposed Substitution does not affect dimensions and functional clearances.
- Coordination, installation, and changes in the Work as necessary for accepted Substitution have been or will be performed in all respects.

Contractor's Certification:

Submitted by: _____ Signed by: _____

Firm: _____ Phone: _____

Address: _____

Subcontractor's Certification:

Submitted by: _____ Signed by: _____

Firm: _____ Phone: _____

Address: _____

List Attachments:

DESIGNER OF RECORD REVIEW AND ACTION

- Substitution Recommended - Make Submittals in accordance with Section 01 3300, "Submittals".
- Substitution Recommended as Noted - Make submittals in accordance with Section 01 3300, (Submittals).
- Substitution Rejected - Use specified Products.
- Substitution Request Received too late - Use specified Products.

Signed by: _____ Date: _____

Additional Comments: Contractor Subcontractor Supplier Manufacturer Architect

OWNER ACCEPTANCE

- Substitution Accepted - Make submittals in accordance with Section 01 3300, "Submittals".

- Substitution Accepted as Noted - Make submittals in accordance with Section 01 3300, "Submittals".
- Substitution Rejected - Use specified Products.
- Substitution Request Received too late - Use specified Products.
-

Signed by: _____ Date: _____
(Owner's Authorized Representative)

END OF DOCUMENT 01 630

**DOCUMENT 01 7250
SURVEYING AND FIELD ENGINEERING**

ARTICLE I. GENERAL

1.01. Summary

A. This Document includes:

1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 – Related Documents And Sections
 - c. 1.03 – Definitions
 - d. 1.04 – Field Layout
 - e. 1.05 – Locations and Elevations in the Contract Drawings
 - f. 1.06 – Survey and Site Work
 - g. 1.07 – Underground Infrastructure, Utilities & Other Facilities
 - h. 1.08 – Penetrations
 - i. 1.09 – Quality Assurance
 - j. 1.10 – Submittals
2. Article II – Products
 - a. 2.01 - Equipment
3. Article III – Execution
 - a. 3.01 - Survey
4. Article IV – Forms (Not Used)

1.02. Related Documents and Sections (Not Used)

1.03. Definitions

- A. As used in this Section 01 7250, "Surveying and Field Engineering", the following definitions apply:
1. Approximate Location of Subsurface Installations – A strip of land not more than 24 inches on either side of the exterior surface of an Existing Subsurface Installation.
 2. Existing Subsurface Installation - Any existing underground pipeline, conduit, duct, wire, or other structure.
 3. Rearranged - Rearrangement includes relocation, removal, alteration or installation.

1.04. Field Layout

- A. Contractor is responsible for all investigations, coordination, techniques and determinations as may be necessary to properly fit, Install and complete the Work.
- B. Data and information shown and indicated in the Contract Documents are as accurate as could be obtained but are not guaranteed.
- C. Contractor must, before beginning any Work, compare actual Project Site conditions with the requirements of the Contract Documents, and verify all existing conditions and dimensions.
- D. Verifications.
 - 1. As a minimum, Contractor must perform the following verifications:
 - a. Field & Site Conditions
 - (i) Contractor must carefully examine and compare all the Contract Documents relating to the Work with actual field conditions, so that all Work will be accommodated in the spaces provided. The general arrangement and location of the elements of the various systems are shown on the Drawings or specified. Final locations, levels, etc., are governed by actual material sizes used, by conditions encountered, and by the sequence in which the Work is performed.
 - (ii) Space conflicts and interferences must be resolved before any Work is installed.
 - b. Dimensions.
 - (i) Contractor, prior to performing any Work and as a part of the construction layout procedures, must check and verify all dimensions for accuracy, closing and clarity, and must immediately report any discrepancies to Owner for resolution before proceeding.
 - (ii) No measurements shall be scaled from Drawings. Only dimensions appearing on Drawings will be used.
 - (iii) Where manufacturer's diagrams, Shop Drawings, etc. give specific measurements of rough-in dimensions for materials or equipment and these dimensions are in conflict with dimensions indicated on Drawings, Contractor must immediately request clarifications from Owner.
 - (iv) In case of apparent error, discrepancy, omission, conflict, or obscurity in the Contract Documents, or discrepant conditions encountered at the Project Site or between Submittals, Contractor must immediately refer the matter to Owner for interpretation and/or clarification.
- E. Contractor must Provide necessary lines, levels, locations, measurements and markers for all on the Work and be responsible for their accuracy.

- F. On building structures, Contractor must lay out on forms, walls, floors, and columns, the exact location of partitions as a guide to all trades.
- 1.05. Locations and Elevations In the Contract Drawings
- A. Property lines, location lines, and elevations of components of the Work are shown on the Contract Drawings.
 - B. Grade elevations shown for various parts of the Work are taken from a bench mark shown on the Contract Drawings, or if not shown, will be designated by the Owner in writing before starting Work.
- 1.06. Survey and Site Work
- A. Contractor must perform all survey and site Work necessary to locate and layout the construction in plan and elevation.
 - B. Contractor must set all stakes and marks necessary to establish the lines and grades required for the Project, and perform all survey work to layout all Work including batter boards, roads, parking lots, site utilities, and control lines.
 - C. Contractor must protect and maintain marks, lines, benchmarks, monuments, etc. which have previously been installed and/or are required for construction and inspection purposes. Monuments or stakes that are disturbed or destroyed due to Contractor's negligence or failure to pursue the Work diligently must be re-established at Contractor's expense.
- 1.07. Underground Infrastructure, Utilities & Other Facilities
- A. Attention is directed to California Government Code § 4215 and § 4216 concerning protection of underground infrastructure in public contracts.
 - B. Contractor must ascertain the exact location of all underground and concealed facilities in the Project area prior to doing any work that may damage such facilities or interfere with their service. As a minimum, at least forty-eight (48) hours before any such work is planned, Contractor must have a locating service survey the area. When shown on the Drawings, the locations of Existing Subsurface Installations are the Approximate Location of Subsurface Installations, and the accuracy or completeness of this information is not guaranteed. There may be Existing Subsurface Installations not known to Owner or located differently than indicated in the Contract Documents.
 - C. Contractor must protect from damage utilities and any other Existing Subsurface Installations that are to remain in place, be relocated, or otherwise Rearranged. As used herein, rearrangement includes relocation, removal, alteration or installation.
 - D. If Contractor discovers underground facilities not indicated in the Contract Documents, Contractor must immediately notify Owner in writing. Contractor must not disturb, disconnect or damage any existing facilities, unless specifically indicated in the Contract Documents to be relocated, removed, or otherwise revised. Should Contractor disturb, disconnect, or damage any existing facilities or utilities, Contractor will bear all expenses of whatever nature arising from such disturbance or the replacement or repair thereof.
 - E. The right is reserved to the owners of facilities or their authorized agents, to enter the Project with Owner's approval to make such changes as are necessary to rearrange their

facilities or to make necessary corrections or repairs to their properties. Contractor must cooperate with forces engaged in such work and must conduct operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such other forces.

- F. Contractor must obtain authorization from the utility involved and notify Owner at least 72 hours in advance, when it is necessary to interrupt any existing utility service to make connections. Interruption in utility service must be of the shortest possible duration for the Work at hand and must be Approved in advance by Owner.
- G. Where rearrangement of facilities is necessary, Contractor must coordinate its Work with such rearrangement, and Contractor must make all arrangements with the owner of such facilities for such coordination.
- H. When ordered by Owner in writing, Contractor will rearrange any facility necessary to accomplish the Project and such work will be paid for as extra Work if it is not indicated in, or cannot reasonably be inferred from, the Contract Documents.
- I. If Contractor desires to rearrange any utility or facility for its convenience in order to facilitate its construction operations, and if such rearrangement is in addition to, or different from any rearrangements indicated in the Contract Documents, Contractor must make all necessary arrangements with Owner and the owners of such utility or facility for such rearrangement and bear all expenses in connection therewith.
- J. Where Owner determines that rearrangement of a utility or facility, the existence of which is not shown in the Contract Documents, is essential to accommodate the Project, Owner may rearrange such utility or facility by other forces.
- K. Per Government Code § 4215, Contractor will not be assessed Liquidated Damages for any delay in completing the Project when such delay is caused by the failure of a utility owner or the County to remove or relocate existing utilities that were the responsibility of the utility owner or County to remove or relocate.

1.08. Penetrations

- A. Contractor is responsible for all penetrations through walls, floors, beams, joists and other structural and non-structural elements of the Work for passage of pipes, conduits, ducts or other devices.
- B. Contractor is responsible for coordinating all penetrations and securing Owner's approval for locations of all penetrations through structural floors, walls and supporting members.
- C. Owner will provide results of special inspection to locate reinforcing bars or imbedded items within concrete or masonry walls, floors, columns or beams.

1.09. Quality Assurance

- A. Surveys must be performed under the direction and with the review of a land surveyor licensed in the State of California.
- B. All survey documentation must be signed and stamped by the licensed Land Surveyor in responsible charge of the work.

- C. The Contractor must review all information to ensure it is technically accurate and complies with the requirements of this Document 01 7250 (Surveying and Field Engineering), before providing to the Owner.

1.10. Submittals

- A. Prior to performing any survey Work, submit three (3) paper copies and an electronic copy via Buzzsaw of the qualifications of the California Licensed land surveyor.
- B. No later than 15 Days after Contractor's request for Final Inspection, Contractor must three (3) paper copies and an electronic copy via Buzzsaw of Contractor's survey records to the Owner.

ARTICLE II. PRODUCTS

- 2.01. Equipment. The Contractor must provide necessary survey equipment and materials to obtain the required locations and elevations to the precision specified.

ARTICLE III. EXECUTION

3.01. Survey

- A. Elevation surveys must be referenced to the County of Alameda datum, and must be performed to within one one-hundredth (0.01) of a foot (ft.), unless otherwise specified.
- B. Location surveys must be referenced to the baseline and survey control points shown on the Contract Drawings. Locations must be provided to within one one-hundredth (0.01) of a foot (ft.), unless otherwise specified.
- C. The Contractor's survey records must be made available and/or submitted to the Owner when requested by Owner.

ARTICLE IV. FORMS (NOT USED)

END OF DOCUMENT 01 7250

**DOCUMENT 01 7820
OPERATION AND MAINTENANCE DATA**

ARTICLE I. GENERAL

1.01. Summary

- A. This Document includes:
 - 1. Article I – General
 - a. 1.01 – Summary
 - b. 1.02 - Related Documents And Sections
 - c. 1.03 – Definitions
 - d. 1.04 – Required O&M Documentation
 - e. 1.05 - Submittals
 - 2. Article II - Products
 - a. 2.01 – O&M Documentation Directory
 - b. 2.02 – Emergency Manuals
 - c. 2.03 – Operation Manuals
 - d. 2.04 – Required O&M Documentation
 - e. 2.05 – Systems and Equipment Maintenance Manual
 - f. 2.06 – Final Commissioning Report
 - 3. Article III – Execution
 - a. 3.01 - General
 - b. 3.02 – Manufacturers’ Data
 - c. 3.03 – Drawings
 - 4. Article IV - Forms (Not Used)

1.02. Related Documents and Sections: None.

1.03. Definitions

- A. O&M - Operations and Maintenance
- B. O&M Documentation – O&M Documentation Directory, manuals, and Final Commissioning Report consisting of:
 - 1. O&M Documentation Directory
 - 2. Emergency Manual
 - 3. Operations Manual
 - 4. Product Maintenance Manual
 - 5. Systems and Equipment Maintenance Manual

- 6. Final Commissioning Report
 - C. System - An organized collection of parts, equipment, or subsystems united by regular interaction.
 - D. Subsystem - A portion of a system with characteristics similar to a system.
- 1.04. Required O&M Documentation
- A. O&M Documentation Directory: Prepare a separately bound directory that provides an organized reference to all O&M Documentation.
 - B. Emergency Manual: Assemble a complete set of emergency information including procedures for use by emergency personnel and by Owner's operating personnel for various types of emergencies.
 - C. Operations Manual: Assemble information needed for daily operations and management of Systems and equipment.
 - D. Product Maintenance Manual: Assemble a complete set of maintenance data indication care and maintenance of each product, material, and finish incorporated into the Work.
 - E. Systems and Equipment Maintenance Manual: Assemble information of each System, Subsystem, and piece of equipment not part of a System.
 - F. Final Commissioning Report
- 1.05. Submittals
- A. Initial Submittal: Submit three (3) draft copies of each manual at least sixty (60) Days before certifying completion of the entire Work of the Project.
 - B. Final Submittal: Submit three (3) copies of each manual in final form no later than fifteen (15) Days after Contractor's certification that the entire Work of the Project is complete.
 - C. Corrected Final Submittal: Correct or modify each manual to comply with Owner's comments. Submit three (3) hard copies and three sets of copies on compact disks of each corrected Final Submittal within fifteen (15) Days of receipt of Owner's comments on the Final Submittal.

ARTICLE II. PRODUCTS

- 2.01. O&M Documentation Directory
- A. Organization: Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. List of equipment.
 - 4. Table of contents.
 - B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
 - C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.

- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with the same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.02. Emergency Manuals

- A. Include emergency information that must be immediately available during emergency situations to protect life and property and to minimize disruptions to building occupants.
- B. Content: Organize manual into a separate section for each of the following:
 - 1. Type of emergency.
 - 2. Emergency instructions.
 - 3. Emergency procedures.
- C. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 - 1. Fire.
 - 2. Flood.
 - 3. Earthquake.
 - 4. Gas leak.
 - 5. Water leak.
 - 6. Power failure.
 - 7. Water outage.
 - 8. System, subsystem, or equipment failure.
 - 9. Chemical release or spill.
- D. 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.
- E. Emergency Procedures: Include the following, as applicable:
 - 1. Instructions on stopping.
 - 2. Shutdown instructions for each type of emergency.
 - 3. Operating instructions for conditions outside normal operating limits.
 - 4. Required sequences for electric or electronic systems.
 - 5. Special operating instructions and procedures.

2.03. Operation Manual

- A. Include information needed for daily operations and management of systems and equipment.
- B. In addition to requirements in this Document, include operation data required in individual Technical Specification Sections and the following information:
 - 1. System, subsystem, and equipment descriptions.
 - 2. Performance and design criteria if Contractor is delegated design responsibility.
 - 3. Operating standards.
 - 4. Operating procedures.
 - 5. Operating logs.
 - 6. Wiring diagrams.
 - 7. Control diagrams.
 - 8. Piped system diagrams.
 - 9. Precautions against improper use.
 - 10. License requirements including inspection and renewal dates.
- C. Descriptions: Include the following:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.
 - 6. Limiting conditions.
 - 7. Performance curves.
 - 8. Engineering data and tests.
 - 9. Complete nomenclature and number of replacement parts.
- D. Operating Procedures: Include the following, as applicable:
 - 1. Startup procedures.
 - 2. Equipment or system break-in procedures.
 - 3. Routine and normal operating instructions.
 - 4. Regulation and control procedures.
 - 5. Instructions on stopping.
 - 6. Normal shutdown instructions.
 - 7. Seasonal and weekend operating instructions.
 - 8. Required sequences for electric or electronic systems.

9. Special operating instructions and procedures.
 - E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
 - F. Piped Systems: Diagram piping as installed and indicate color-coding where required for identification.
- 2.04. Product Maintenance Manual
- A. Content
 1. Organize manual into a separate section for each product, material, and finish.
 2. Include:
 - a. Source information
 - b. Product information
 - c. Maintenance procedures
 - d. Repair materials and sources
 - e. Warranties and bonds, as described below.
 - B. Source Information
 1. List each product included in manual identified by product name and arranged to match manual's table of contents.
 2. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Project Manual Section number and title.
 - 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.
 - D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 1. Inspection procedures.
 2. Types of cleaning agents to be used and methods of cleaning.
 3. List of cleaning agents and methods of cleaning detrimental to product.
 4. Schedule for routine cleaning and maintenance.
 5. Repair instructions.
 - E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

- F. Warranties and Bonds
 - 1. Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 2. Include procedures to follow and required notifications for warranty claims.
- 2.05. Systems and Equipment Maintenance Manual
 - A. Content
 - 1. For each System, Subsystem, and piece of equipment not part of a system, include:
 - a. Source information
 - b. Manufacturers' maintenance documentation
 - c. Maintenance procedures
 - d. Maintenance and service schedules
 - e. Replacement parts list and source information
 - f. Maintenance service contracts
 - g. Warranty and bond information
 - B. Source Information
 - 1. List each system, subsystem, and piece of equipment included in the manual, identified by product name and arranged to match manual's table of contents.
 - 2. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Project Manual Section number and title.
 - C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard printed maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.
 - D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.

5. Aligning, adjusting, and checking instructions.
 6. Demonstration and training videotape, if available.
- 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.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Manufacturer's Suggested Spare Parts List: 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.
1. Include procedures to follow and required notifications for warranty claims.
- 2.06. Final Commissioning Report
- A. The Contractor must prepare and submit a Final Commissioning Report summarizing all of the tasks, findings, and documenting the Commissioning process.
 - B. The report must address the actual performance of the building systems in reference to the requirements of the Contract Documents.
 - C. The report must include completed pre-functional inspection checklists, Functional Performance Testing records, diagnostic monitoring results, identified deficiencies, recommendations, and a summary of commissioning activities.
 - D. The Final Commissioning Report must be included as part of the O&M Documentation Final Submittal

ARTICLE III. EXECUTION

3.01. General

- A. Organization
 1. 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.
 2. Each manual must contain the following materials, in the order listed:
 - a. Title page.
 - b. Table of contents.
 - c. Manual contents.

- B. Title Page
 - 1. Enclose title page in transparent plastic sleeve.
 - 2. Include the following information:
 - a. Subject matter included in manual.
 - b. Name and address of Project.
 - c. Name and address of City.
 - d. Date of submittal.
 - e. Name, address, and telephone number of Contractor.
 - f. Name and address of Owner's Design Consultant.
 - g. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents
 - 1. List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Section number in the Project Manual.
 - 2. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents
 - 1. Organize into sets of manageable size.
 - 2. Arrange contents alphabetically by system, subsystem, and equipment.
 - 3. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Binders
 - 1. Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components.
 - b. Cross-reference other binders to provide essential information for proper operation or maintenance of equipment or system.
 - c. 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.
- F. Dividers

1. Heavy-paper dividers with plastic-covered tabs for each section.
 2. Mark each tab to indicate contents.
 3. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Project Manual Section number and title.
- G. Protective Plastic Sleeves. Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
- H. Supplementary Text. Prepared on 8-1/2-by-11-inch, 20-lb./sq. ft. white bond paper.
- I. Drawings
1. Attach reinforced, punched binder tabs on drawings and bind with text.
 2. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 3. Do not place loose, oversize drawings in binder pockets.
 4. 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.
- 3.02. Manufacturers' Data
- A. Manufacturers' standard printed data
1. Include only sheets pertinent to product or component installed.
 2. Mark each sheet to identify each product or component incorporated into the Work.
 3. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents.
- B. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- C. Extraneous Data: Where contents of manuals include manufacturers' catalog pages, clearly indicate precise items included in this installation and delete, or otherwise clearly indicate, manufacturer's data with which this installation is not concerned.
- 3.03. Drawings
- A. 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.
- B. Coordinate supplementary drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
- C. Do not use original Record Documents as part of operation and maintenance manuals.

ARTICLE IV. FORMS (NOT USED)

END OF DOCUMENT 01 7820