

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

103



FROM: Economic Development Agency

SUBMITTAL DATE:
August 31, 2011

SUBJECT: Dedicated Air Conditioning for Information Technology Rooms at Riverside Centre - Plans and Specifications

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the plans and specifications for the Dedicated Air Conditioning (AC) for Information Technology (IT) Rooms at Riverside Centre project and authorize the Clerk of the Board to advertise for bids; and
2. Delegate project management authority for the project to the Assistant County Executive Officer/EDA in accordance with applicable Board policies.

BACKGROUND: (Commences on Page 2)

Robert Field

Robert Field
Assistant County Executive Officer/EDA

FINANCIAL DATA	Current F.Y. Total Cost:	\$ 0	In Current Year Budget:	Yes
	Current F.Y. Net County Cost:	\$ 0	Budget Adjustment:	No
	Annual Net County Cost:	\$ 0	For Fiscal Year:	2011/12

COMPANION ITEM ON BOARD OF DIRECTORS AGENDA: No

SOURCE OF FUNDS: General Fund Capital Project Designation (previously approved budget)	Positions To Be Deleted Per A-30	<input type="checkbox"/>
	Requires 4/5 Vote	<input type="checkbox"/>

C.E.O. RECOMMENDATION: APPROVE

BY: *Jennifer L Sargent*
Jennifer L Sargent

County Executive Office Signature

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Buster, seconded by Supervisor Benoit and duly carried, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Buster, Benoit and Ashley
Nays: None
Absent: Tavaglione and Stone
Date: September 20, 2011
xc: EDA, CIP

Kecia Harper-Ihem
Clerk of the Board
By: *Kecia Harper-Ihem*
Deputy

Prev. Agn. Ref.: 3.14 of 10/06/09

District: 2

Agenda Number **3.9**

ATTACHMENTS FILED
WITH THE CLERK OF THE BOARD

FORM APPROVED COUNTY COUNSEL
BY: *Marshall Victor*
MARSHAL VICTOR
DATE: 8/29/11

Reviewed by
CIP TEAM
Secret

Departmental Concurrence

Policy
 Policy
 Consent
 Consent
 Dep't Recomm.:
 Per Exec. Ofc.:

Economic Development Agency

Dedicated Air Conditioning for Information Technology Rooms at Riverside Centre - Plans and Specifications

August 31, 2011

Page 2

BACKGROUND:

On October 6, 2009, the Board of Supervisors approved a pre-qualified list of architectural and engineering firms to be retained on an as-needed basis. The Economic Development Agency (EDA) has selected Shadpour Consulting (SC) Engineers, Inc., from the pre-qualified list to provide engineering services for the dedicated air conditioning for IT Rooms at Riverside Centre project.

The bid documents are now complete and EDA requests approval to solicit bids for construction of this project. EDA will return to the Board under separate cover to approve the project budget and execute any related project agreements.

The IT rooms require a dedicated air conditioning system that provides cooling 24 hours a day, year round to maintain services and protect network equipment. Currently the only air conditioning available is via shared use of the main building air conditioning. That system is limited to normal business hours usage and does not meet the needs of IT rooms.

The work associated with this project was budgeted for and funded as part of the acquisition of the Riverside Centre.

103

SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR

**DEDICATED AIR CONDITIONING FOR INFORMATION
TECHNOLOGY ROOMS AT RIVERSIDE CENTER**

(Dedicated A/C for IT Rooms at Riverside Center)
PROJECT NO. FM08740000174



PREPARED BY
COUNTY OF RIVERSIDE
ECONOMIC DEVELOPMENT AGENCY
PROJECT MANAGEMENT OFFICE
AUGUST 2011

SC ENGINEERS, INC
17075 Via Del Campo, First Floor
San Diego, CA 92127
858-946-0333

FORM APPROVED COUNTY COUNSEL

BY: MR. Victor 8/29/11 DATE
MARSHAL VICTOR

SEP 20 2011 3.9 p/s

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NOTICE INVITING BIDS

COUNTY OF RIVERSIDE, herein called Owner, invites sealed proposals for the:

Dedicated Air Conditioning for Information Technology Rooms at Riverside Center Project

This project consists of installation of air conditioning systems to serve the IT computer rooms in the existing Riverside Center, a high rise building located in downtown Riverside, CA. Work includes installation of a dedicated chilled water plant and associated pumps, piping, controls fan coil units, and associated electrical wiring, conduits, VFDs and connections for the air conditioning equipment and controls, and incidental related requirements.

Proposals shall be delivered to the Clerk of the Board of Supervisors, on the 1st floor of the County Administrative Center located at 4080 Lemon Street, Riverside, CA 92501 no later than **10:00 a.m., on, (day & date)** to be promptly opened in public at said address.

Each Proposal shall be in accordance with the Plans, Specifications and other Contract Documents, dated August 2011 that were prepared by County of Riverside with SC Engineers, Inc., 17075 Via Del Campo, First Floor, San Diego, CA 92127; phone number 858-946-0333.

Plans and Specifications are available for purchase by the Contractors at Mission Reprographics, 2050 E La Cadena Dr # L, Riverside, CA 92507, 951-686-8828 or www.missionreprographics.com. Plan Holders List is available at Mission Reprographics.

Notice of Award will be available at Mission Reprographics, www.missionreprographics.com

Pursuant to the Labor Code, the Governing Board of the Owner has obtained from the Director of the Department of Industrial Relations, State of California, his determination of general prevailing rates of per diem wages applicable to the work, and for holiday and overtime work, including employer payments for health and welfare, pension, vacation, and similar purposes, as set forth on the schedule which is on file at the principal office of the Owner, and which will be made available to any interested person upon request.

The Contract General Conditions for this project will contain provisions allowing successful contractor to substitute securities for monies withheld by the County to ensure performance (Public Contract Code 22300).

A Performance Bond and Payment Bond shall be required for this Project.

The Contractor will be required, per Public Contracts Code, Section 3300 and for this contract, to have a State of California contractor's license classification C20 – Warm-Air Heating, Ventilating and Air-Conditioning Contractor.

A **mandatory** pre-bid job walk inspection will be held on **(day & date), 2011 at _____ a.m.**, meeting at 3403 10th Street, Riverside, CA 92501 in Conference Room _____. **No bids will be accepted from bidders who have not attended the pre-bid job walk.**

All Requests for Information (RFI) should be emailed to both Dawn Torres, EDA Project Manager at drtorres@rivcoeda.org AND Lyle Willis of SC Engineers at lyle@scengineers.net. RFI'S will not be answered via phone calls. Deadline for submission of Bid RFI is **(day & date), 2011 at 2:00 p.m.**

For further information, contact Dawn Torres, Project Manager, at the Economic Development Agency, Project Management Office at 3403 10th Street, Suite 500, Riverside, CA 92501 whose telephone number is 951-955-4880 and email is drtorres@rivcoeda.org.

INSTRUCTIONS TO BIDDERS

- A. **FORM OF PROPOSAL:** The Proposal must be made on the attached Contractor's Proposal Form which must be filled out completely, dated and signed by the bidder or duly authorized agent in accordance with the directions on the Proposal Form. Each Proposal shall include a complete list of the Subcontractors proposed for every portion of the work, in accordance with Public Contract Code, Section 4100-4114, inclusive.
- B. **SUBMISSION OF THE PROPOSAL:** Signed copies of each Proposal shall be sealed in an envelope labeled with Title of Bid and Opening Time. Proposals shall be submitted at the place designated in the Notice Inviting Bids at or before the time specified in said notice. Before that time a proposal may be withdrawn, but only in person by the bidder or someone authorized by him in writing, and not by telephone or telegram.
- C. **DRAWINGS AND SPECIFICATIONS:** All drawings, herein enclosed, become a part of the Bid Documents. Plans and Specifications may be obtained from Mission Reprographics, 2050 E La Cadena Dr # L, Riverside, CA 92507, 951-686-8828 or www.missionreprographics.com. All fees are due at the time of request and must be paid directly to Mission Reprographics.
- D. **INTERPRETATION OF THE DOCUMENTS:** Discrepancies in and omissions from the Plans, Specifications or other Contract Documents or questions as to their meaning shall, at once, be brought to the attention of the Owner. Any interpretation of the Documents will be made only by Addenda duly issued and a copy of such Addenda will be mailed or delivered to each person or firm receiving a set of such documents. The Owner will not be responsible for any other explanations or interpretations. Should anything in the scope of the work or any of the sections of the Specifications be of such nature as to be apt to cause disputes between the various trades involved, such information shall be promptly called to the attention of the Owner.
- E. **ADDENDA TO THE DOCUMENTS:** The Owner reserves the right to issue such Addenda to the documents as it may desire at any time prior to the time fixed for receiving Proposals. A copy of all such Addenda will be promptly mailed or delivered to each bidder. The number and date of each Addenda shall be listed on the Contractor's Proposal in the space provided.
- F. **OWNER'S RESERVATION OF RIGHTS:** The Owner reserves the right to reject any or all Proposals and to waive any informalities in a bid or in the bidding. No bidder may withdraw his bid for a period of sixty (60) days after the time set for the opening thereof.
- G. **BIDDER'S CHECK OR BOND:** Each Proposal must be accompanied by a certified or cashier's check or by a bid bond on the form supplied by the Owner, drawn in favor of the Owner in an amount not less than ten percent (10%) of the total Proposal. This check or bond shall be given as a guarantee that the bidder, if awarded the contract, will execute and deliver the Contract Documents and the required Payment and Performance Bonds and proof of insurance in accordance with his Proposal accepted by the Owner. In default of execution of the Contract upon award and/or delivery of said Payment and Performance Bonds, such Proposal bond or check shall be held subject to payment to the Owner of the difference in money between the amount of the bidder's Proposal and the amount for which the Owner may legally contract with another party to perform the said work, together with the costs to the Owner of redrafting, redrawing and publishing documents and papers shall, in addition, be held subject to all other actual damages suffered by the Owner, as set forth on the Contract Documents. Said check or bond will be returned upon the close of the period mentioned in Paragraph F above, and to the successful bidder upon execution of the Contract Documents. **NO BONDS WILL BE ACCEPTED UNLESS SUBMITTED ON THE FORM SUPPLIED BY OWNER.**

- H. **AWARD OF CONTRACT:** The Contract shall be awarded upon a Resolution or Minute Order to that effect duly adopted by the Governing Board of the Owner. Execution of the Contract Documents shall constitute a written memorial thereof.
- I. **ADDITIONAL INFORMATION:** The Owner reserves the right to require of a bidder, information regarding financial responsibility or such other information as the Owner determines is necessary to ascertain whether a bid is in fact the lowest responsible bid submitted. All references to an Architect shall be deemed to refer to the Owner where no Architect has been employed by the Owner.
- J. **PROMPT ACTION BY THE CONTRACTOR:** After the award of the Contract by the Governing Board and within four (4) days after the Agreement Forms are presented to the Contractor for signing, he shall return to the Owner the signed Agreements, along with all necessary bonds and insurance.
- K. **PRE-BID CONFERENCE:** There will be a mandatory pre-bid conference for this project that will be held at the site. No bids will be accepted from bidders who have not attended the pre-bid conference.
- L. **BIDS:** Under the bidding items listed on the Contractor's Proposal, bidders shall state prices for each basis for bid given hereinafter.

1. Base Bid shall be the entire work complete in accordance with the contract documents, but not including work indicated or specified to be provided under any of the other bid items.

The basis for award will be the qualified bidder with the lowest total of the Base Bid with all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.

CONTRACTOR'S PROPOSAL

TO THE GOVERNING BOARD OF THE COUNTY OF RIVERSIDE:

Date: _____

Bidder: _____

The undersigned, having carefully examined the proposed site and the Plans and Specifications, the Notice Inviting Bids, the Instructions to Bidders, the Agreement Form, the Bond Forms, the General Conditions for the construction of the **Dedicated Air Conditioning for Information Technology Rooms at Riverside Center Project**, hereby proposes and agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials necessary to complete the work in strict conformity with the Plans and Specifications, including all work specified in Addenda numbered and dated:

Addendum No. _____ Date _____

Addendum No. _____ Date _____

Addendum No. _____ Date _____

Addendum No. _____ Date _____

For the total Base Bid _____ dollars (\$ _____), including all applicable taxes, permits, and licenses.

(Add or Deduct state which)

Alternate 1 \$ _____

Alternate 2 \$ _____

Alternate 3 \$ _____

Alternate 4 \$ _____

Bids must be submitted on all items. Failure to bid on all items may result in the bid being rejected as non-responsive. The basis for award will be the qualified bidder with the lowest total of the Base Bid and all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.

AWARD OF CONTRACT

The undersigned fully understands that a Contract is formed upon the acceptance of this Proposal by the Owner and the undersigned further agrees that upon request he will promptly execute and deliver to Owner a written memorial of the Contract together with the required Payment and Performance Bonds and proof of insurance.

BID GUARANTEE

The enclosed certified or cashier's check or bidder's bond on approved form, made payable to the Owner in the amount of ten percent of the total bid submitted herewith, is hereby given as a guarantee that the bidder will execute and deliver the above mentioned written memorial and required bonds and insurance if awarded the contract, and in the event that the undersigned fails or refuses to execute and deliver said documents, such check or bond is to be charged with the costs of the damages experienced by the Owner as a result of such failure or refusal, including but not limited to publication costs, the difference in money between the amount of the bid of the said principal and the amount for which obligee may legally contract with another party to perform the said work if such amount be in excess of the former, building lease or rental costs, transportation costs and additional salary costs that result from the delay due to the principal's default on the awarded contract. In no event, however, shall the Surety's liability exceed the penal sum hereof.

Name of Bidder: _____

Type of Organization: _____

Signed By: _____

Title of Signer: _____

Address of Bidder: _____

Telephone No.: _____

Contractor's License No.: _____

Classification: _____ Expiration Date: _____

Affix Seal

If

Corporation

LICENSURE STATEMENTS ARE MADE UNDER PENALTY OF PERJURY

If bidder is a corporation, and signer is not President or Secretary, attach a certified copy of By-Laws or resolution authorizing execution. If bidder is a corporation, affix corporate seal. If signer is an agent, attach Power of Attorney. If bidder is not an individual, list names of other persons authorized to bind the organization.

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

State of California) ss.
County of Riverside)

_____, being first duly sworn, deposes and says:

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

Signature

Subscribed and sworn to before me this _____ day of _____, 2011.

Signature of officer administering oath

Bid Bond

KNOWN TO ALL MEN BY THESE PRESENTS, that we, the undersigned _____, as Principal; and _____, as Surety, are hereby held and firmly bound unto the County of Riverside, hereinafter called the "Owner", in the sum of _____ Dollars (\$ _____) for the payment of such sum, well and truly to be made, do hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

WHEREAS, the said Principal is herewith submitting its Proposal for the **Dedicated Air Conditioning for Information Technology Rooms at Riverside Center Project.**

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the aforesaid Principal shall be awarded the Contract upon said Proposal and shall, within the required number of days after the notice of such award, execute a written memorial of the awarded Contract and submit the required Labor and Material Payment and faithful Performance Bond and proof of insurance, then this obligation shall be null and void; and in the event that the Principal fails and/or refuses to execute and deliver said documents this Bond will be charged with the costs of the damages experienced by the Owner as a result of such refusal, including but not limited to, publication cost, the difference in money between the amount of the bid of the said Principal and the amount for which the obligee may legally contract with another party to perform the said work if such amount be in excess of the former; building lease or rental costs, transportation cost, and additional salary costs that result from the delay due to the Principal's default on the awarded Contract. In no event however, shall the Surety's liability exceed the penal sum hereof.

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

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their separate seals this _____ day of _____, 2011, the name and corporate seal of each corporate party being hereto affixed and those present duly signed by its undersigned representative, pursuant to authority of its governing body.

(Firm Name - Principal)

(Business Address)

By _____
(Original Signature)

(Title)

(Corporation Name - Surety)

(Business Address)

By _____
(Original Signature)

ATTORNEY-IN-FACT

Affix Seal
If
Corporation

Affix
Corporate
Seal

AGREEMENT FORM

THIS AGREEMENT, entered into this _____ day of _____, 2011, by and between _____, hereinafter called the "Contractor", and the County of Riverside hereinafter called the "Owner".

WITNESSETH: That the parties hereto have mutually covenanted and agreed as follows:

CONTRACT: The Complete Contract includes all of the Contract Documents, to wit: The Notice Inviting Bids, the Instructions to Bidders, the Contractor's Proposal, Wage Schedule, Payment and Performance Bonds, the Plans and Specifications plus any Addenda thereto, the General Conditions, the Supplementary General Conditions, if applicable and this Agreement. All Contract Documents are intended to cooperate and be complimentary so that any work called for in one and not mentioned in the other, or vice versa, is to be executed the same as if mentioned in all Contract Documents.

STATEMENT OF WORK: The Contractor hereby agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials for the **Dedicated Air Conditioning for Information Technology Rooms at Riverside Center Project**. In strict accordance with the Plans and Specifications dated August 2011 prepared by SC Engineers, hereinafter called the "Architect", and County of Riverside including Addenda thereto as listed in the Contractor's Proposal, all of which are made a part hereof.

TIME FOR COMPLETION: The work shall be commenced on a date to be specified in a written order of the Architect and shall be completed within _____ calendar days from and after said date. It is expressly agreed that except for extensions of time duly granted in the manner and for the reasons specified in the General Conditions, time shall be of the essence.

COMPENSATION TO BE PAID TO CONTRACTOR: The Owner agrees to pay and the Contractor agrees to accept in full consideration for the performance of the Contract, subject to additions and deductions as provided in the General Conditions, the sum of _____ dollars (\$ _____) being the total of the base bid plus the following addenda: __, __, __, __. The sum is to be paid according to the schedule as provided in the General Conditions.

Pursuant to Labor Code, Section 1861, the Contractor gives the following certification: I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract.

IN WITNESS WHEREOF, the parties hereto on the day and year first above written have executed this agreement in four (4) counterparts.

Type of Contractor's organization: _____

If other than individual or corporation, list names of all members who have authority to bind firm.
_____, _____, _____, _____

Firm Name: _____

Address: _____

Contractor's License No.: _____

IF OTHER THAN CORPORATION EXECUTE HERE

Signature: _____

Title: _____

Affix Seal
If
Corporation

IF CORPORATION, FILL OUT FOLLOWING AND EXECUTE

Name of President of Corporation: _____

Name of Secretary of Corporation: _____

Corporation is organized under the laws of State of _____

Signature: _____

Title: _____

Owner: COUNTY OF RIVERSIDE

Signature: _____

Title: Chairman - Board of Supervisors

Attest: Clerk - Board of Supervisors

By: _____

Title: _____

PAYMENT BOND

(Public Work - Civil Code Section 3247 et seq.)

The makers of this Bond are _____ as Principal and Original Contractor and _____, a corporation, authorized to issue Surety Bonds in California, as Surety, and this Bond is issued in conjunction with that certain public works contract dated _____, 2011 between Principal and County of Riverside, a public entity, as owner, for _____ dollars (\$ _____) the total amount payable. **THE AMOUNT OF THIS BOND IS 100% OF SAID SUM.** Said contract is for public work of: **Dedicated Air Conditioning for Information Technology Rooms at Riverside Center Project.**

The beneficiaries of this Bond are as is stated in 3248 of the Civil Code and the requirements and conditions of this Bond are as is set forth in Sections 3248, 3249, 3250 and 3252 of said Code. Without notice, Surety consents to extension of time for performance, change in requirements, amount of compensation, or prepayment under said Contract.

Signed and Sealed this _____ Day of _____ 2011.

(Firm Name - Principal)

(Business Address)

By: _____
(Signature - Attach Notary's Acknowledgment)

(Title)

Affix Seal
if
Corporation

(Corporation Name - Surety)

(Business Address)

By: _____
(Signature - Attached Notary's Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

Affix
Corporate
Seal

PERFORMANCE BOND

The makers of this Bond, _____, as Principal, and _____ as Surety, are held and firmly bound unto County of Riverside, hereinafter called the Owner, in the sum of _____ Dollars (\$_____) for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that whereas the Principal entered into a certain contract, hereto attached, with the Owner, dated _____, 2011 for: **Dedicated Air Conditioning for Information Technology Rooms at Riverside Center Project.**

Now therefore, if the Principal shall well and truly perform and fulfill all the undertakings covenants, terms, conditions and agreements of said Contract during the original term of said Contract and any extension thereof that may be granted by the Owner, with or without notice to the Surety, and during the file of any guarantee required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may thereafter be made, then this obligation to be void, otherwise to remain in full force and virtue. Without notice, Surety consents to extension of time for performance, change in requirements, change in compensation or prepayment under said Contract.

Signed and Sealed this _____ Day of _____, 2011.

(Firm Name - Principal)

(Business Address)

Affix Seal
if
Corporation

By: _____
(Signature - Attach Notary's Acknowledgment)

(Title)

(Corporation Name - Surety)

(Business Address)

Affix
Corporate
Seal

By: _____
(Signature - Attach Notary's Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

**CONTRACTOR'S CERTIFICATE
REGARDING WORKERS' COMPENSATION**

Labor Code Section 3700

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

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

- (b) By securing from the Director of Industrial Relations, a Certificate of Consent to Self-Insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of this Contract.

Principal

Principal

Title

(In accordance with Article 5 [commencing at Section 1860], Chapter, Part 7, Division 2 of the Labor Code, the above Certificate must be signed and filed with the Owner prior to performing any work under this Contract.)

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GENERAL CONDITIONS OF THE CONTRACT

ARTICLE 1 GENERAL PROVISIONS

1.1 **DEFINITIONS**

THE CONTRACT DOCUMENTS - The Contract Documents consist of the Contract, the Performance Bond and Payment Bond and any other bond required by the Contract, the drawings, the specifications, addenda issued prior to execution of the Contract, and all modifications thereto.

THE CONTRACT - The Contract Documents form the Contract. The Contract represents the entire and integrated agreement between the parties hereto, and supersedes all prior negotiation, representations, or agreements, either written or oral, including the bidding documents.

ACT OF GOD - An Act of God is an earthquake of magnitude 4.5 or greater on the Richter scale, flood, tornado, or other cataclysmic phenomenon of nature, or rain, snowstorm, windstorm, high water, or other natural phenomenon in excess of the normal as established by National Oceanic and Atmospheric Administration weather data.

ACCEPTANCE - Acceptance is when the County determines all of the Contract requirements have been completed. Execution of the Notice of Completion will signify acceptance. A copy of the Notice of Completion will be sent to the Contractor after execution by the County. Upon receipt of the Notice of Completion, the Contractor will be relieved of the duty of protecting the work, and the County will initiate final settlement and payment.

ARCHITECT - The use of the term Architect shall mean the individual, partnership, corporation, association or joint venture contracted by the County for the design of this Work, as designated on the title sheet of these specifications and Contract Documents.

BENEFICIAL OCCUPANCY - The right of the County to occupy all or any portion of the project prior to final Acceptance of the Work. Such occupancy does not constitute acceptance or completion by the Contractor of the Work or any portion thereof, nor will it relieve the Contractor of the responsibility for correcting defective work or materials found at any time before Acceptance of the Work.

COUNTY - The term County when used herein shall mean the Board of Supervisors of the County of Riverside, a political subdivision of the State of California.

CHANGE ORDER - A Change Order is the document issued by the County authorizing any change or adjustment to the Contract Documents in accordance with Article 19 of this Contract.

CONTRACT DRAWINGS - "Contract drawings" or "drawings" means and includes (a) all drawings which have been prepared on behalf of the County and are included in the Contract Documents and all clarification drawings issued by notice to the bidders thereto; (b) all drawings submitted pursuant to the terms of the Contract by the Contractor to the County during the progress of the Work, which are accepted by the County.

CONTRACTOR'S AGENT - The representative of the Contractor, approved by the County, who shall be present at the Work and be authorized to receive and act upon instructions from the County and to execute and direct the Work on behalf of the Contractor.

CONTRACTOR - When used herein, Contractor means the prime or principal Contractor licensed to perform work in the State of California, including all joint ventures. References to subcontractor or others are only for convenience and all such references shall be considered to refer to the Contractor. The prime or principal Contractor shall be responsible for all subcontractors, and all subcontractors shall require their subcontractors to comply with the relevant provisions of the prime or principal contract.

CRITICAL PATH METHOD(CPM) - "Critical Path Method" is a schedule technique.

DAY - The use of "day" herein means calendar day and shall include every day including Saturdays, Sundays, and legal holidays.

DIRECTOR - The use of "Director" shall mean the Assistant County Executive Officer/EDA of the County or his designated representative.

INSTALL - When used herein, "install" shall mean the complete installation, in place, of any item, equipment or material.

MATERIAL - Material shall be construed to include machinery, equipment, manufactured articles, or construction such as form work, fasteners, etc., and any other classes of material to be furnished in connection with the Contract. All materials shall be new.

NOTICE OF COMPLETION - The Notice of Completion ("NOC") shall be issued at that point in the Contract when the Contractor has completed all Work required in the Contract Documents. The time for issuance shall be determined by the County through a final inspection. The NOC shall be issued by the Board of Supervisors.

NOTICE TO PROCEED - The Notice to Proceed is the written notification from the County giving the Contractor notice to commence with the Work. The Notice to Proceed will specify the start date for the Work and the completion date.

REQUEST FOR INFORMATION - (RFI) The form and procedure established for communication between the Contractor and the County to clarify or interpret the Contract Documents.

REQUEST FOR QUOTATION - (RFQ) A document consisting of supplemental details, instruction, or information issued by the Architect, through the County, for the purpose of obtaining price quotations for possible changes in the Work.

SHALL - When used herein, "shall" means anything, which is mandatory to be performed by the Contractor.

SPECIFICATIONS - The term "Specifications" means that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work.

SUBCONTRACTOR - The term "Subcontractor" means a person or firm that has a contract with Contractor or with another subcontractor to perform a portion of the Work. Unless otherwise

specifically provided, the term Subcontractor includes Subcontractors of any tier, suppliers, manufacturers, and distributors. The term Subcontractor is referred to throughout the Contract Documents as if singular in number.

WORK - The term "Work" comprises the services and materials required by the Contract Documents, as may be amended, and includes all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in such construction.

1.2 AUTHORITIES AND LIMITATIONS

1.2.1 The Board of Supervisors alone have the power to bind the County and to exercise the rights, responsibilities, authorities, and functions vested therein by the Contract Documents, except that they shall have the right to designate authorized representatives to act for them.

1.2.2 Neither the Contract, nor any part thereof, nor moneys due or to become due there under may be assigned by the Contractor without the prior written approval of the County, with the exception of the assignments to County which may be required under the terms of this Contract.

1.3 LEGAL REQUIREMENTS

1.3.1 Contractor shall keep informed of, and comply with, all federal, state and county laws, ordinances, rules, and regulations applicable to the Work or to those engaged or employed in the Work of this Contract, especially (but not limited to) those laws relating to hours of employment, prevailing wages, payment of wages, sanitary and safety conditions for workers, workers' compensation insurance, type and kind of materials that can be used, non-discrimination in employment and affirmative action programs. Failure to identify a specific provision in these Contract Documents shall not excuse the Contractor from complying with such applicable statutory requirements.

1.3.2 If conflict arises between provisions of the Contract Documents and any such laws, rules, or regulations, the Contractor shall notify the County at once in writing. If, before receiving clarification, Contractor performs any portion of the Work affected by such apparent conflict, such performance shall be at Contractor's own risk. Contractor shall not be entitled to any additional compensation or time by reason of the conflict or its later correction.

1.3.3 All work and materials shall be in full accordance with the latest applicable (or otherwise noted) codes, rules, and regulations including, but not limited to, the following:

- .Uniform Building Code
- .Uniform Plumbing Code
- .Uniform Mechanical Code
- .Uniform Fire Code
- .State Fire Marshal
- .State Industrial Accident Commission's Safety Orders
- .Rules of Local Utilities

1.3.4 Nothing in the specifications is to be construed to permit work not conforming to the above, and expense incurred complying with the above shall be borne by the Contractor. Whenever the specifications and working details require higher standards than those required by the ordinances, codes and statutes, the specifications and working details shall take priority over the ordinances, codes and statutes.

1.3.5 In submitting a bid on this public works projects, or any subcontractor agreeing to supply goods, services, or

materials, and entering a contract pursuant thereto, the contractor and/or subcontractor do offer and agree to assign the County all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final acknowledgement by the parties.

1.4 STANDARD REFERENCES

1.4.1 All documents and publications (such as, but not limited to, manuals, handbooks, codes, standards, and specifications) which are cited in this Contract for the purpose of establishing technical (non-administrative) requirements applicable to equipment, materials, or workmanship under this Contract, shall be deemed to be incorporated herein as though fully set forth.

1.4.2 Whenever reference is made to any particular document or publication, the Contractor shall comply with the requirements set out in the edition specified in this Contract, or if not specified, the latest edition or revision thereof, in effect on the date of the solicitation of bid on this project, except as modified by, as otherwise provided in, or as limited to type, class, or grade, in the specifications of this Contract.

1.5 PERMITS, LICENSES, FEES & TAXES

1.5.1 COUNTYS RESPONSIBILITIES

- a. The County will apply for all plan checks and will apply for and obtain the Building Permit(s), the Grading Permit and Construction Permits required by the County of Riverside, paying all fees in connection therewith.
- b. The County will furnish, at no expense to the Contractor, all on-site inspection of the Work and will arrange and pay for off-site inspection only as noted in the Contract Documents.

1.5.2 CONTRACTOR'S RESPONSIBILITIES

- a. The Contractor shall obtain and pay for all other permits and licenses required for the Work, including excavation permit and for plumbing, mechanical and electrical work and for operations in or over public streets or right of way under jurisdiction of public agencies other than the County.
- b. Exclusive of off-site inspection specified herein to be the County's responsibility, the Contractor shall arrange and pay for all off-site inspection of the Work, including certification, required by the specifications, drawings, or by governing authorities.
- c. Before Acceptance of the project by the County, the Contractor shall submit all licenses, permits, and certificates of inspection to the County.

1.6 SEPARATE CONTRACTS

1.6.1 The County reserves the right to perform work related to this project with its own forces, and to award separate

contracts in connection with other portions of the project or other work on the site. The Contractor shall cooperate with others in the prosecution of all work and shall not interfere with material, appliances or workmen of the County or any other contractor engaged by the County at the site of the Work. In case of disagreement regarding such use, the matter shall be referred to the County whose decision relative to said use shall govern.

1.6.2 The Contractor shall afford the County and separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall properly connect and coordinate Contractor's Work with theirs.

1.6.3 If any part of the Contractor's Work depends for proper execution or results upon the work of the County or any separate contractor, the Contractor shall inspect and promptly report to the County any discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the County's or the separate contractor's work as fit and proper to receive the Work, except as to defects which may develop in the other separate contractor's work after the execution of the Contractor's Work.

1.6.4 Should the Contractor cause damage to the work or property of any separate contractor on the Project, the Contractor shall, upon due notice, settle with such other contractor by agreement, if both will so settle. If such separate contractor sues the County because of any damage alleged to have been so sustained, the Contractor agrees to indemnify and defend the County in such proceedings with the County retaining the right to select and hire independent counsel for the County paid by the Contractor.

1.6.5 Any cost caused by defective or ill-timed work shall be borne by the party responsible therefore.

1.7 COUNTY'S AUTHORIZED REPRESENTATIVE, INSPECTOR(S), & ARCHITECT

1.7.1 AUTHORIZED REPRESENTATIVE

The County shall designate a representative during the Work, who shall have the right to be present at the job site during construction and shall supervise any additional representatives appointed by the County.

1.7.2 INSPECTOR(S)

The Inspector(s) shall have the right to observe the installation of all materials and equipment to be incorporated into the Work and the placing of such material and equipment to determine in general if the Work is proceeding in accordance with the Contract Documents. The Inspector(s) is not authorized to make changes in the Contract Documents. On the basis of his observations, he shall keep the County informed as to the progress of the Work. The Inspector shall not be responsible for means, methods, techniques, sequences, or procedures of construction nor for safety precautions and programs in connection with the Work. Nor will the inspector be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

1.7.3 ARCHITECT

- a. The County has retained an Architect for this project. The Architect will advise and consult with the County, and the County will issue instructions to the Contractor. The Architect will be requested to interpret the requirements of the Contract. When requested by the County,

the Architect will, within a reasonable time, render such interpretations as he may deem necessary for the proper execution of the Work.

- b. The Architect will make periodic visits to the job site to familiarize himself generally with the progress and quality of the Work and to determine in general whether the work is proceeding in accordance with the Contract Documents. Based on such observations he will recommend approval of applications for progress payments made by Contractor. The Architect shall not be responsible for means, methods, techniques, sequences, or procedures of construction nor for safety precautions and programs in connection with the Work. Nor will the Architect be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

ARTICLE 2 BONDS AND INSURANCE

2.1 BIDS OF \$25,000 OR LESS

2.1.1 If the total amount bid on the Work is \$25,000 or less, the payment bond and performance bond are not required, provided that one payment of all compensation shall be made following Acceptance of all work.

2.2 BONDS

2.2.1 GENERAL REQUIREMENTS

a. Before commencing any Work under this Contract, the Contractor shall file four of each bond with the County. These bonds shall be in the amounts and for the purposes specified below. They shall be surety bonds issued by:

- (1) Either a California Admitted Surety OR a current Treasury Listed Surety (Federal Register).

And

- (2) Either a current A.M. Best A VIII rated Surety OR an admitted surety insurer which complies with the provisions of the Code of Civil Procedure, § 995.660.

b. Should any surety or sureties upon said bonds or any of them become insufficient, Contractor shall renew said bond or bonds with good and sufficient sureties within ten (10) calendar days after receiving notice from the County that the surety or sureties are insufficient. Cost of bonds shall be included in the bid price.

2.2.2 PERFORMANCE BOND

The successful bidder shall deliver to the County an executed Performance Bond on the attached form in an amount equal to 100% of the accepted bid as security for the faithful performance of the Contract.

2.2.3 PAYMENT BOND

The successful bidder shall deliver to the County an executed Payment Bond on the attached form in an amount equal to 100% of the accepted bid as security for the payment of all persons performing labor and furnishing materials in connection with the Work.

2.3 INSURANCE

2.3.1 GENERAL REQUIREMENTS

Before commencing this Work under the Contract, and without limiting or diminishing CONTRACTOR'S obligation to indemnify and hold the COUNTY harmless, the Contractor shall procure and maintain, or cause to be maintained at its sole cost and expense, the following insurance coverages during the term of this Contract.

2.3.2 WORKERS' COMPENSATION INSURANCE

Contractor shall secure Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. Policy shall be endorsed, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement, and contain a Waiver of Subrogation in favor of the County of *Riverside*. Pursuant to Section 3700 of the Labor Code of the State of California, Contractor shall file with the County before commencing the Work the following signed certification:

"I am aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I shall comply with such provisions before commencing the performance of the Work of this Contract."

2.3.3 COMMERCIAL GENERAL LIABILITY:

Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products/completed operations if applicable, personal and advertising injury – which may arise from or out of CONTRACTOR'S operations, use, and management of the premises, or the performance of its obligations hereunder. Policy shall name the County of Riverside—it's Director's, Officers, special Districts, Board of Supervisors, employees, agents or representatives as Additional Insured, and contain a Waiver of Subrogation in favor of the County of Riverside. Policy limits shall not be less than \$1,000,000 per occurrence combined single limits. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit. Policy shall also contain coverage for \$5,000 Medical Payments coverage per accident, per person, and Fire Legal Liability in an amount not less than \$50,000.

2.3.4 VEHICLE LIABILITY:

If CONTRACTOR'S vehicles or licensed mobile equipment are used on County property, or used in any manner on behalf of the County, CONTRACTOR shall maintain auto liability insurance for all owned, non-owned and hired automobiles in an amount not less than \$1,000,000 per occurrence combined single limit, \$2,000,000 in the aggregate. Policy shall name the County of Riverside, its Director's Officers, Special Districts, Board of Supervisors, employees, agents, or representatives as Additional Insured, and provide a Waiver of Subrogation in favor of the County of Riverside.

2.3.5 PROPERTY (PHYSICAL DAMAGE):

All-Risk property insurance coverage for the full replacement value of all CONTRACTOR'S equipment, improvements/alterations, temporary structures, and systems (Care, Custody, and Control of CONTRACTOR) used on COUNTY property, or used in any way connected with the accomplishment of the Work performed in this contract.

2.3.6 COURSE OF CONSTRUCTION INSURANCE

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This Section is not applicable to this project

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2.3.7 GENERAL INSURANCE PROVISION – ALL LINES:

- a. Any insurance carrier providing insurance coverage hereunder shall be admitted to the State of California unless waived, in writing, by the County Risk Manager. Carrier(s) shall have an A.M. BEST rating of not less than an A:VIII. Insurance deductibles or self-insured retentions must be declared by the carrier(s), and such deductibles and retentions shall have the prior written consent from the County Risk Manager. At the election of the Risk Manager, carriers shall provide written notification, and shall either 1) reduce or eliminate such deductibles or self-insured retentions, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses. If no written notice is received from the County Risk Manager within ten (10) days of the acceptance of agreement, then such deductibles or self-insured retentions shall be deemed acceptable.

- b. Cause its insurance carrier(s) to furnish the County of Riverside with either 1) a properly executed original Certificates(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein, or 2) if requested to do so in writing by the County Risk Manager, provide original Certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. The County of Riverside, its Director's and Officers, Special Districts, Board of Supervisors, elected officials, employees, agents or representatives are named as Additional Insureds. Further, said Certificates(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that shall provide no less than thirty (30) days written notice be given to the County of Riverside prior to any material modification or cancellation of such insurance. In the event of a material modification or cancellation of coverage, this Agreement shall terminate forthwith, unless the County of Riverside receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverages set forth herein and the insurance required herein is in fullforce and effect. **CONTRACTOR shall not take possession, or**

use the Premises, or commence operations under this Agreement until the County of Riverside has been furnished original Certificate(s) of Insurance and certified original copies of Endorsements or policies of insurance including all Endorsements and any and all other attachments as required in this Section. The original Endorsements for each policy and the Certificate of Insurance shall be signed by an individual authorized by the insurance carrier to do so on its behalf.

- c. It is understood and agreed to by the parties hereto and the insurance company(s), that the Certificate(s) of Insurance and policies shall so covenant and shall be construed as primary, and the COUNTY'S insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.

The County of Riverside's Reserved Rights-Insurance. The County of Riverside reserves the right to adjust the monetary limits of insurance coverage's during the term of this agreement or any extension thereof-if in the County Risk Manager's reasonable judgment, the amount or type of insurance carried by the CONTRACTOR becomes inadequate.

- d. CONTRACTOR shall pass down the insurance obligations contained herein to all tiers of sub-consultants working under this Agreement.

2.4 INDEMNITY AND HOLD HARMLESS

2.4.1 CONTRACTOR agrees to and shall indemnify and hold the COUNTY-its officers, employees and agents free and harmless from any and all claims, actions, damages and liabilities of whatsoever kind and nature arising from death, personal injury, property damage or other cause asserted or, based upon any negligent act or omission of CONTRACTOR, its employees, agents, invitees, or any subcontractor of CONTRACTOR relating to or in any way connected with the accomplishment of the work or performance of services under this Agreement, regardless of the existence or degree of fault or negligence on the part of the COUNTY or any officer or employee of said COUNTY, other than the sole active negligence or willful misconduct of COUNTY-its Directors and Officers, Special Districts, Board of Supervisors, elected officials, employees, agents or representatives. As part hereto of the foregoing indemnity CONTRACTOR agrees to protect and defend at its own expense, including attorneys' fees the COUNTY-its Directors and Officers, Special Districts, Board of Supervisors, elected officials, employees, agents or representatives from any and all legal action based upon any acts or omissions, as stated hereinabove, by any person or persons.

2.4.2 If any such claim, action, or proceeding is brought against County or County's officers, agents, employees, or independent contractors, Contractor, upon notice from County, shall defend the same at Contractor's expense by counsel satisfactory to County.

2.4.3 County shall promptly notify Contractor of any claim, action, or proceeding against County or County's officers, agents employees, independent contractors, and consultants relating to the performance, or omission to perform, any term or condition of this Contract. County shall cooperate fully in the defense of such claim, action, or proceeding.

2.4.4 County shall not be liable or responsible for any accident, loss or damage occurring to the Work prior to the completion and Acceptance of same, unless otherwise specifically agreed to at the time of occupancy by the County.

ARTICLE 3 SITE CONDITIONS

3.1 DIFFERING SITE CONDITIONS

- 3.1.1 The Contractor shall have reviewed and ascertained pertinent local conditions such as location, accessibility, and general character of the site and satisfy himself as to the conditions under which the Work is to be performed. No claim for allowances shall be made because of Contractor's error or negligence in acquainting himself with the conditions at the site.
- 3.1.2 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by County. The Contractor shall promptly report in writing to County any errors, inconsistencies, or omissions in the Contract Documents or inconsistencies with applicable code requirements observed by Contractor.
- 3.1.3 If Contractor performs any construction activity which it knows or should know involves an error, inconsistency, or omission without notifying and obtaining the written consent of County, Contractor shall be responsible for the resultant losses, including, without limitation, the costs of correcting defective work.
- 3.1.4 The County will furnish surveys necessary to properly locate the property and establish the boundaries thereof with general reference points as well as to enable the Contractor to proceed with the Work.
- 3.1.5 The Contractor shall provide competent engineering services to lay out the Work and all parts thereof and to establish all grades and elevations in accordance with the Contract requirements. He shall verify the figures shown on the survey and approach drawings before undertaking any construction work and shall be responsible for the accuracy of the finished work.
- 3.1.6 The Contractor shall protect and preserve established bench marks and monuments and shall make no changes in locations without the written approval of the County. Any bench marks or monuments that are lost or destroyed shall be replaced by the Contractor subsequent to notification and approval from County.

3.2 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

- 3.2.1 The Contractor acknowledges by submission of his/her bid that he has satisfied himself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including any exploratory work deemed necessary by the Contractor. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating the difficulty and cost of successfully performing the Work, or for proceeding to successfully perform the Work without additional expense to the County.

3.3 DIMENSIONS AND MEASUREMENTS

- 3.3.1 All dimensions shown for existing conditions and all dimensions required for work that is to connect with work now in place, shall be verified and calculated by the Contractor by actual measurement of the existing work. Any discrepancies between the Contract Documents and the existing conditions shall be referred to the authorized representative of the County before any work affected thereby has been performed. Failure to notify the County before starting work will be considered acceptance by the Contractor. Where doubts as to dimensions exist, County shall determine the correct dimensions.

ARTICLE 4 SPECIFICATIONS AND DRAWINGS

4.1 GENERAL PROVISIONS

4.1.1 SUBDIVISIONS

For convenience, the specifications are arranged into several sections, but such separation shall not be considered as the limits of the work required of any separate trade. The terms and conditions of such limitations are wholly between the Contractor and his subcontractors. Requirements contained in any section are required as if contained in all sections and are the responsibility of the Contractor. The Contractor, prior to awarding subcontracts, will assure the Work required as a whole has been coordinated among the subcontracts.

4.1.2 RECORD DOCUMENTS

- a. The Contractor shall keep on the Work site a copy of the awarded construction documents (drawings and specifications) and shall at all times give the County and Architect access thereto.
- b. The Contractor will be given one set of drawings and specifications which shall be kept at the site of the Work at all times and updated weekly. Payment may be withheld if drawings are not kept current. Exact locations of all pipes and conduits and all changes in construction and details shall be indicated and dimensions provided upon these drawings, and all changes in materials and equipment installed shall be indicated in these specifications. Upon completion and prior to Acceptance of the Work, a final reproducible (transparencies) set of project record documents and specifications shall be submitted to the County by the Contractor. County will furnish a set of reproducibles.
- c. The working details will indicate dimensions, position, and kind of construction, and the specifications, qualities, and methods. Any Work indicated on the working details and not mentioned in the specifications, or vice versa, shall be furnished as though fully set forth in both. Work not particularly detailed, marked, or specified shall be the same as similar work that is detailed, marked, or specified.
- d. In case of discrepancy in the documents, the matter shall be promptly submitted to the County, who shall make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The County shall furnish from time to time such detailed information as considered necessary to clarify the Work.
- e. Where the word "similar" occurs on the drawings, it shall have a general meaning and not be interpreted as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the work.
- f. Standard details or specification drawings are applicable when listed, bound with specifications, noted on the drawings or referenced elsewhere in the specifications. Where the notes on the drawings indicate modifications, such modifications shall govern.
- g. All drawings, specifications and copies thereof furnished to the Contractor are the property of the County and shall not be used on other work without its consent. Upon completion of this project, all copies of the drawings and specifications shall be returned to the County.

4.2 SUMMARY OF THE ORDER OF THE PROCEDURE

4.2.1 In case of conflicts between the Contract Documents, the order of precedence shall be as follows:

- 1) Modifications or changes last in time are first in precedence.

- 2) Addenda.
- 3) County-Contractor agreement.
- 4) General Conditions except for specific modifications thereto stated in the Supplementary Conditions.
- 5) Supplementary Conditions.
- 6) Division One Specifications.
- 7) Division Two through Sixteen Specifications.
- 8) Drawings - as between figured dimensions given on drawings and the scaled measurements, the figured dimension shall govern; as between large-scale drawings and small-scale drawings, the larger scale shall govern.
- 9) Structural drawings
- 10) Architectural drawings.
- 11) As between detailed drawings and typical details bound within the specifications, the detailed drawings govern.
- 12) In the event provisions of codes, safety orders, contract documents, referenced manufacturer's specifications or industry standards are in conflict, the more restrictive and higher quality shall govern.
- 13) Schedules shown on the drawings take precedence over conflicting information given on other drawings.
- 14) Mechanical drawings.
- 15) Electrical drawings.

4.3 CLARIFICATIONS/REQUEST FOR INFORMATION AND ADDITIONAL INSTRUCTIONS

4.3.1 NOTIFICATION BY CONTRACTOR

- a. Should Contractor discover what he perceives to be conflicts, omissions, or errors in the Contract Documents, or have any question concerning interpretation or clarification of the Contract Documents, or if it appears that the work to be done or any matters relative thereto are not sufficiently detailed or explained in the Contract Documents, then, before proceeding with the work affected, Contractor shall notify County's authorized representative in writing, and request interpretation, clarification, or additional detailed information concerning the work. The Contractor shall ask for the clarification (Request for Information) immediately upon discovery but no less than 14 calendar days prior to the start date of the activities related to the clarification, based on the latest updated version of the accepted Progress Schedule. County, whose decision shall be final and conclusive, shall resolve such questions and issue instructions to Contractor. Should Contractor proceed with work affected before receipt of instructions from County, Contractor shall remove and replace or adjust work which is not in accordance with the instructions from County and shall be responsible for resultant damage, defect or added cost. In event of failure to agree as to scope of Contract requirements, Contractor shall follow the procedure set forth in the DISPUTES article.
- b. The Contractor shall not be entitled to any compensation for delays, disruptions, inefficiencies or additional administrative effort caused by the Contractor's untimely review of the Contract Documents for potential conflicts, omissions, discrepancies or ambiguities.
- c. County may charge back to the Contractor, time and expense associated with RFI's, as may be reasonably determined by the County to be unnecessary.

4.3.2 ADDITIONAL DETAILED INSTRUCTIONS

- a. The County may furnish additional detailed written instructions on any Request for Information to

further explain the Work. If in the opinion of Contractor, the additional detailed instructions constitute work in excess of the scope of the Contract, he must submit written notice thereof immediately to the County, but no later than seven (7) calendar days following receipt of such instruction(s), and in any event prior to commencement of work thereon. The Contractor shall not be entitled to additional compensation due to any additional instructions unless the Contractor shall have given the appropriate written notice. County will then consider such notice and, if in its judgment it is justified, the County instructions will be revised or extra work shall be authorized by Change Order. In the event of a dispute hereunder, attention is directed to the DISPUTES article.

ARTICLE 5 SHOP DRAWINGS AND SUBMITTALS

5.1 SHOP DRAWINGS, PRODUCT DATA, COORDINATION DRAWINGS AND SCHEDULES

- 5.1.1** Shop drawings are drawings submitted to the County by the Contractor showing detail of the proposed fabrication and assembly of structural elements and the installation (i.e., form, fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, fabrication, erection and setting drawings, manufacturers' scale drawings, wiring and control diagrams, cuts or entire catalogs, pamphlets, and performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the Work required by the Contract. The County may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this Contract.
- 5.1.2** The Contractor shall coordinate all shop drawings and review them for accuracy, completeness, and compliance with Contract requirements, and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the County without evidence of the Contractor's approval shall be returned for resubmission. The Architect will indicate review for compliance of the shop drawings, and if not in compliance as submitted, shall indicate the reasons therefore. Any work done before such review shall be at the Contractor's risk. Review by the Architect shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this Contract, except with respect to variations described and approved in accordance with paragraph 5.1.3.
- 5.1.3** If shop drawings show any variations from the Contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Architect approves any such variation, no change in time or price will be allowed for Contractor changes. Should the Architect make changes on the shop drawings which affect time and/or cost, the Contractor will immediately notify the County with a Request for Information. If the Contractor fails to issue the Request for Information within seven (7) calendar days from receipt of the returned shop drawing, the Contractor shall have waived his right to any potential Change Order.
- 5.1.4** The Contractor shall submit shop drawings, coordination drawings, and schedules for review as required by the Contract Documents. The Contractor will provide a submittal schedule listing all shop drawings and submittals, the submission dates by the Contractor, and return dates from the Architect. This schedule will be provided fourteen (14) calendar days after the Notice to Proceed.
- 5.1.5** Shop drawings and schedules, other than catalogs, pamphlets, and similar printed material, shall be submitted with one reproducible plus one copy.
- 5.1.6** Each shop drawing or coordination drawing shall have a blank area 4 by 4 inches located adjacent to the title block. The title block shall display the following:
- 1) Number and title of drawing

- 2) Date of drawing or revision
- 3) Name of project building or facility
- 4) Name of Contractor and (if appropriate) name of subcontractor submitting drawings
- 5) Clear identity of contents and location on the work
- 6) Project title and project number
- 7) Submittal number

5.1.7 Unless otherwise provided in this Contract or otherwise directed by County, shop drawings, coordination drawings, and schedules shall be submitted to the Architect with a letter, sufficiently in advance of construction requirements to permit no less than twenty (21) calendar days for checking and appropriate action.

5.2 SAMPLES

5.2.1 After the award of the Contract, the Contractor shall deliver samples required by the specifications to the County for approval. The Contractor shall prepay any shipping charges. Any materials or equipment for which samples are required shall not be used in the Work until reviewed by County.

5.2.2 Each sample shall have a label indicating:

- 1) Name of project building or facility, project title, and project number.
- 2) Name of Contractor and, if appropriate, name of subcontractor.
- 3) Identification of material or equipment with specification requirement.
- 4) Place of origin.
- 5) Name of manufacturer and brand (if any).
- 6) Identify by specification section.

5.2.3 Samples of finished materials shall have additional markings that will identify them in reference to the finish schedules.

5.2.4 The Contractor shall mail a letter in triplicate under separate cover submitting each shipment of samples and containing the information required in paragraph 5.2.2. He shall enclose a copy of this letter with the shipment and send a copy to the County representative on the project. Approval of a sample shall be only for the characteristics or use named in such review and shall not be construed to change or modify any Contract requirement. Substitutions will not be permitted unless they are approved under paragraph 5.3.

5.2.5 Approved samples not destroyed in testing will be sent to the County. Approved samples of hardware in good condition will be marked for identification and may be used in the Work. Materials and equipment incorporated in the Work shall match the approved samples. Other samples not destroyed in testing or not approved will be returned to the Contractor at his expense if so requested at time of submission.

5.2.6 Failure of any material to pass the specified tests will be sufficient cause for refusal to consider any further samples of the same brand or make of that material or equipment under this Contract.

5.2.7 Samples of various materials or equipment delivered on the site or in place, may be taken by the County for testing. Samples failing to meet Contract requirements will automatically void previous approvals of the items tested. The Contractor shall replace such materials or equipment found not to have met Contract requirements, or there shall be a proper adjustment of the Contract price as determined by the County.

5.2.8 Unless otherwise specified, when tests are required, only one test of each sample proposed for use will be made at the expense of the County. Samples which do not meet specification requirements will be rejected. Requests for testing of additional samples by Contractor may be made by the County at the expense of the Contractor.

5.3 SUBSTITUTIONS

- 5.3.1** Wherever the name, or brand, or manufacturer of an article is specified in the Contract Documents, it is used as a measure of quality and utility or a standard. Except in those instances where the product is designated to match others presently in use, specifications calling for a designated material, product, thing or service by specific brand or trade name shall be deemed to be followed by the words "or equal" so that bidders may propose any equal material, product, thing or service in their bid. If the Contractor desires to use any other brand or manufacturer of equal quality and utility to that specified, he shall list definite particulars of that which he considers equivalent to the specified item in his bid. The Contractor shall have thirty-five (35) days after the award of the Contract for submission of data substantiating substitution of "equal" items. The County will then determine whether or not the proposed name brand or article is equal in quality and utility to that specified in the Contract Documents, and its written decision shall be final.
- 5.3.2** No proposal will be considered unless accompanied by complete information and descriptive data necessary to determine the equality of the offered materials, articles, or equipment. Samples shall be provided when requested by the County.
- 5.3.3** The burden of proof as to the comparative quality or suitability of the offered materials, articles, or equipment shall be upon the Contractor. The County shall be the sole judge as to such matters. In the event that the County rejects the use of such alternative materials, articles, or equipment, then one of the particular products designated by brand name in the specifications shall be furnished.
- 5.3.4** The County will examine Contractor's submittals with reasonable promptness. Return of the submittals to the Contractor shall not relieve the Contractor from responsibility for deviations and alternatives from the Contract Documents nor shall it relieve him from responsibility for errors in the submittals. A failure by the Contractor to identify, in his letter of transmittal, material deviations from the Contract Documents shall void the submittal and any action taken thereon by the County. When specifically requested by the County, the Contractor shall resubmit such shop drawing(s), descriptive data, and samples as may be required.
- 5.3.5** If any mechanical, electrical, structural, or design revisions are required for the proper installation and fit of alternative materials, articles, or equipment, or because of deviations from the Contract Documents, such changes shall not be made without the consent of the County's authorized representative, and shall be made without additional cost to the County, such costs, including the fees of the Architect, to be borne by the Contractor.

ARTICLE 6 SCHEDULES

6.1 CONSTRUCTION SCHEDULE

- 6.1.1** The Contractor shall prepare and submit to the County a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the salient features of the work (including acquiring materials and equipment). The schedule shall be in the form of a CPM (critical path method) schedule, of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. The scheduled completion date shall be the same as the contractual completion date, for the initial schedule and subsequent updates. Any proposed early completion date shall show the difference between that date and the contract completion date as Float, which shall belong to both the County and Contractor.

- 6.1.2** If, in the opinion of the County, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, without additional cost to the County. The Contractor shall submit any supplementary schedule or schedules in CPM form as the County deems necessary to demonstrate how the approved rate of progress will be regained.
- 6.1.3** All schedule updates must accurately reflect the as-built schedule. There shall be no change to the Critical Path without the County's written consent.

ARTICLE 7 TIME, LIQUIDATED DAMAGES AND EXTENSIONS

7.1 TIME OF WORK

The Contractor shall commence work on this project immediately upon receipt of the written Notice to Proceed and shall perform the work diligently to completion within the number of calendar days specified in the Contract. Neither site access nor physical work shall be commenced before the Contract is fully executed, and bonds, insurance and the schedule are submitted as required by the Contract Documents. No work shall be done on Saturday, Sunday and holidays and no work shall be performed outside of normal working hours without the prior written consent of the County, unless required by these Specifications. See: Working Hours.

7.2 LIQUIDATED DAMAGES

If the Work is not completed within the time required, damage will be sustained by the County. It is and will be impracticable and extremely difficult to ascertain and determine actual damage which County will sustain by reason of such delay; and it is therefore agreed that Contractor will pay to County the sum of \$3000. 00 per day for each and every day's delay in finishing the Work beyond the time prescribed. If the Contractor fails to pay such liquidated damages, the County may deduct the amount thereof from any money due or that may become due the Contractor under the Contract.

7.3 UNAVOIDABLE DELAYS

7.3.1 TIME EXTENSION

- a. The Contractor will be granted an extension of time for completion of the Work beyond that named in the Contract Documents, for delays which may result through causes beyond the control of the Contractor and which he could not have avoided by the exercise of care, prudence, foresight and diligence. The appropriate extension of time shall constitute full compensation. Costs associated with extended overhead will not be considered.
- b. If the Contractor is allowed extensions of time in which to complete the Work equal to the sum of all unavoidable delays, plus any adjustments of contract time due to contract change orders, during such extension of time liquidated damages shall not be charged to the Contractor.
- c. Unavoidable delays within the meaning of this section shall be those caused by Acts of God or of the public enemy, fire, epidemics, or strike. There will be no liquidated damages for delays as described within this paragraph.
- d. Delays in the performance of parts of the work which may in themselves be unavoidable, but do not necessarily prevent or delay the performance of critical activity(s) while the activity(s) is on the Critical Path, will not be considered as unavoidable delays within the

meaning of the contract and shall not be the basis of a claim for delay.

7.3.2 WEATHER

Inclement weather shall not be a prima facie reason for granting a time extension. The Contractor shall make every effort to continue work under prevailing conditions. However, if the inclement weather prevents the Contractor from beginning at the usual starting time, or prevents the Contractor from proceeding with seventy-five percent (75%) of the normal labor and equipment force towards completion of the day's current Critical Path activities (shown on the most current, and accepted schedule update) for a period of at least five (5) hours, and the crew is dismissed as a result thereof, the County will designate such time as unavoidable delay and grant a one (1) calendar day, non-compensable, time extension.

7.3.3 NOTICE OF DELAYS

- a. Whenever the Contractor foresees any delay in the performance of a Critical Path work activity, and in any event immediately upon the occurrence of any delay which he regards as an unavoidable delay, the Contractor shall notify the County in writing of such delay and its cause, in order that the County may take immediate steps to prevent, if possible, the occurrence or continuance of the delay, and may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the work are to be delayed thereby.
- b. After the completion of any part or the whole of the Work, the County, in calculating the amount due the Contractor, will assume that any and all delays which have occurred have been avoidable delays, except such delays as shall have been called to the attention of the County at the time of their occurrence and found by the County to have been unavoidable as substantiated by a change order. The Contractor shall make no claims that any delay not called to the attention of the County at the time of its occurrence has been an unavoidable delay.

7.4 REQUEST FOR TIME EXTENSION

7.4.1 In the event the Contractor requests an extension of contract time for unavoidable delay, justification shall be submitted no later than seven (7) calendar days after the initial occurrence of any such delay. When requesting time for proposed change orders, the request(s) must be submitted with the proposed change order with full justification. If the Contractor fails to submit justification he shall waive his right to a time extension at a later date. Justification must be based on the currently accepted contract schedule as updated at the time of occurrence of delay or execution of work related to any change(s) in the scope of work. The justification must include a schedule, including, but not limited to, the following information:

- a. The duration to perform the activity relating to the change(s) in the work and the resources (manpower, equipment, material, etc.) required to perform these activities within the stated duration.
- b. Logical activity ties to the contract schedule for the proposed changes and/or delay showing the activity/activities in the schedule whose start or completion dates are affected by the change and/or delay.

7.4.2 The County, after receipt of such justification and supporting evidence, shall make its finding of fact. The County's decision shall be final and conclusive and the County will advise the Contractor in writing of such decision. If the County finds that the Contractor is entitled to any extension of Contract time, the County's

determination as to the total number of days of extension shall be based upon the latest updated version of the approved contract schedule.

- 7.4.3 In the event the Contractor disagrees with the County's decision, the Contractor shall be required to submit a claim pursuant to the DISPUTE article.

ARTICLE 8 PERFORMANCE

8.1 SUPERVISION & CONSTRUCTION PROCEDURES

- 8.1.1 The Contractor shall supervise and direct the work. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, procedures, project safety, and shall coordinate all portions of the Work under the Contract, including the relations of the various trades to the progress of the Work, in accordance with the provisions of the Contract Documents.
- 8.1.2 The Contractor shall be responsible to the County for the acts and omissions of the Contractor's employees, subcontractors, and their agents and employees, and any other persons performing any of the work under a contract with the Contractor.
- 8.1.3 The Contractor is an independent contractor and nothing in the Contract Documents shall be interpreted to make the Contractor an agent of the County.

8.2 SUPERVISION

- 8.2.1 Within seven (7) days after the Notice to Proceed, the Contractor shall provide to the County an organization chart outlining key job personnel. The Contractor will also provide a Letter of Authority or Corporate Resolution for the individual(s) authorized to sign documents on its behalf, i.e., payment requests, change orders, inspection reports, etc.
- 8.2.2 The Contractor shall employ, during the progress of the Work, a competent Project Superintendent and any necessary assistants, as approved by the County. The Project Superintendent shall not be changed except with the consent of the Authorized Representative of County, unless the Superintendent proves to be unsatisfactory to the Contractor or ceases to be in his employ. The County shall be notified immediately of any new Superintendent appointed to the Work and the Contractor shall submit qualifications for approval. The Superintendent shall represent the Contractor and all directions given to him shall be as binding as if given to the Contractor.
- 8.2.3 The County shall be supplied at all times with the name and telephone number of a person in charge of or responsible for the Work, who can be reached for emergency work twenty-four (24) hours a day, seven (7) days a week.

8.3 CONDUCT OF WORK

- 8.3.1 In connecting one kind of work with another, marring or damaging same will not be permitted and, in the event such occurs, shall be corrected by the Contractor at its cost prior to acceptance by the County. Should improper work of any trade be covered by another which results in damage or defects, the whole work affected shall be made good by the Contractor without expense to County.

8.4 PROTECTION OF WORK & PROPERTY

- 8.4.1** The Contractor shall continuously maintain adequate protection of the Work from damage and shall protect the County's property from injury or loss in connection with this Contract. He shall make good any such damage, injury, or loss, except what may be directly due to errors in the Contract Documents or caused by agents or employees of the County. He shall adequately protect adjacent property as provided by law and the Contract Documents.
- 8.4.2** The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the Work site which are not to be removed and which do not unreasonably interfere with the work required under this Contract.
- 8.4.3** The Contractor shall protect from damage all existing improvements and utilities at or near the Work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the Work. If the Contractor fails to repair the damage promptly, the County may have the necessary work performed and charge the cost to the Contractor.

8.5 CONTRACTOR'S RESPONSIBILITY FOR WORK

- 8.5.1** Until Acceptance of the Work by the County, Contractor shall have the charge and care thereof and shall bear risk of injury or damage to any part of the Work by action of the elements. If a separate Contractor sues the Owner, on account of any loss so sustained, the County shall notify the Contractor, who shall indemnify and hold harmless the County against any expenses, or judgment arising therefrom.
- 8.5.2** Contractor, at its cost, shall rebuild, repair, restore and make good all damages from the elements to any portion of the Work occasioned by such causes before its Acceptance.
- 8.5.3** No advertising of any description will be permitted in or about the Work, except by order of the County.
- 8.5.4** Contractor shall not create or permit the continued existence of any nuisance in or about the Work.

8.6 UTILITIES

- 8.6.1** Unless otherwise provided for under separate sections herein, Contractor will arrange all water, gas, and electricity required for construction purposes until acceptance of the Work. Contractor shall pay for such services unless otherwise specifically noted.
- 8.6.2** Utilities shall not be interrupted except with the approval of the County. A two (2) work day written notice is required prior to any and all interruptions. Interruptions shall be scheduled so as to minimize duration and disruption to existing operations.
- 8.6.3**
- a. The Contractor shall send notices, make all necessary arrangements, and perform all other services required in the care and maintenance of all public utilities.
 - b. Enclosing or boxing in, for protection of any public utility equipment, shall be done by the Contractor. Upon completion of the Work, the Contractor shall remove all enclosures, and leave in a finished condition.
 - c. All connections to public utilities shall be made and maintained in a manner so as not to interfere with the continuing use of same by the County during the entire progress of the

Work.

8.7 WORKING HOURS

- 8.7.1** All work shall be performed on a calendar day basis during the customary working hours of the trades involved unless otherwise specified in this Contract. Work performed by the Contractor of his own volition outside such established working hours shall be at no additional expense to the County and without County approval.
- 8.7.2** It is expressly stipulated that no laborer, workman, or mechanic employed at any time by the Contractor or by any subcontractor(s) under this Contract upon the Work or any part thereof, shall be required or permitted to work thereon more than eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except, as provided by Section 1815 of the California Labor Code. It is further expressly stipulated that for each and every violation of Sections 1811-1815, inclusive, of the California Labor Code, all the provisions of which are deemed to be incorporated herein, said contractor shall forfeit, as a penalty to County, twenty-five dollars (\$25.00) for each laborer, workman, or mechanic employed in the execution of this Contract by contractor for each calendar day during which said laborer, workman, or mechanic is required or permitted to work more than eight hours in any one calendar day and forty hours in any one calendar week in violation of the provisions of said Sections of the Labor Code.
- 8.7.3** The Contractor, and each subcontractor, shall keep an accurate record showing the names of and actual hours worked each calendar day and each calendar week by all laborers, workmen, and mechanics employed by them in connection with the Work contemplated by this Contract, which record shall be open at all reasonable hours to the inspection of the County or its officers or agents and to the Division of Labor Standards Enforcement of the Department of Industrial Relations.
- 8.7.4** No construction work shall be done on Saturdays, Sundays or County holidays and no work shall be performed outside of normal working hours without the prior written consent of the County. In any event, all work shall be subject to approval of the County. Prior to start of such work, the Contractor shall arrange with the County for the continuous or periodic inspection of the Work and testing of materials, when necessary. If requests are made by the Contractor for permission to work overtime, nights, Saturdays, Sundays or County holidays, and such requests are granted, the Contractor shall bear all extra expense to the County for inspection and other incidental expenses caused by such overtime work. If contractors are requested, in the interest of the County, to work overtime by the County, or if overtime work is specifically required by these specifications, all extra expense of inspection will be paid by the County.

8.8 MATERIAL & EQUIPMENT

- 8.8.1** Materials, equipment, and articles incorporated into the Work shall be new and of equal quality to the types and grades specified. When not particularly specified, the Contractor shall submit for approval satisfactory evidence as to the kind and quality of material. See SUBSTITUTION provision 5.3 concerning "or equal" requirements and procedure for submitting alternative material, articles, or equipment.
- 8.8.2** All materials shall be delivered so as to insure a speedy and uninterrupted progress of the Work. All materials shall be stored so as to cause no obstruction and so as to prevent overloading of any portion of the structure on the Work site, and the Contractor shall be entirely responsible for damage or loss by weather, theft, vandalism, or other cause.
- 8.8.3** Materials shall be stored to assure the preservation of their quality and fitness for the Work. Stored materials shall be reasonably accessible for inspection. When considered necessary by the County, stored materials shall be placed on wooden platforms or on other hard, clean surfaces and not directly on the ground, and shall be placed under cover when so directed.

8.9 LAYOUT OF WORK

8.9.1 The Contractor shall lay out its work from established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, material, and labor required to lay out any part of the Work. The Contractor shall be responsible for executing the Work to the lines and grades that may be established or indicated in the Contract Documents. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the County until authorized to remove them. If such marks are destroyed by the Contractor before their removal is authorized, the County may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

8.10 USE OF PREMISES

8.10.1 The Contractor shall maintain the entire premises under his control in an orderly condition. He shall store his apparatus, materials, supplies and equipment in such a manner as will not interfere with the progress of his work or the work of other contractors.

8.11 OPERATIONS & STORAGE

8.11.1 The Contractor shall confine all operations (including storage of materials) on County premises to areas authorized or approved by the County.

8.11.2 Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the County and shall be built with labor and materials furnished by the Contractor without expense to the County. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at his expense upon completion of the work.

8.11.3 The Contractor shall, under regulations prescribed by the authority having jurisdiction, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the authority having jurisdiction. When materials are transported in performance of the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or County regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair, or pay for the repair, of any damaged curbs, sidewalks, or roads.

8.12 HEAT/POWER/LIGHT

8.12.1 Unless otherwise specified or already provided by the County, the Contractor shall:

- a. Provide heat, as necessary to protect all work, materials, and equipment against injury from dampness and cold;
- b. Provide heat as necessary in the area where work is to be done to provide the minimum temperature recommended by the supplier or manufacturer of the material;
- c. Provide electric power and light as required for performance of the Work.

8.13 CLEANING UP

8.13.1 The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the Work, the Contractor shall remove from the work and premises any weeds,

rubbish, tools, scaffolding, equipment, and materials that are not the property of the County. Upon completing the Work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the County.

ARTICLE 9 SAFETY & HEALTH

9.1 ACCIDENT PREVENTION

9.1.1 In performing this Contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoiding work interruptions. For these purposes, the Contractor shall:

- a. Provide a copy of its safety program;
- b. Provide appropriate safety barricades, signs, and signal lights;
- c. Comply with standards issued by the U.S. Government, State, County and City, and other governing agencies having jurisdiction;
- d. Ensure that any additional measures the County determines to be reasonably necessary for this purpose are taken.

9.1.2 The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this Contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. The Contractor shall report this data in the manner prescribed by the County.

9.1.3 Before beginning excavation for a trench 5 feet or more in depth, Contractor shall provide evidence of having obtained a permit from the authority having jurisdiction.

9.1.4 Nothing herein shall be deemed to allow use of shoring, sloping, or protective systems less effective than those required by the Construction Safety Orders of the California Division of Industrial Safety.

9.2 SANITARY FACILITIES

9.2.1 Contractor shall supply and maintain at its expense such toilets and other sanitary facilities including those which are accessible by the disabled as per ADA and Title 24 requirements necessary for use by visitors and workers employed at the job site. Such facilities shall be approved by the County.

9.3 RESPONSIBILITY FOR COMPLIANCE WITH CAL-OSHA

9.3.1 All work, materials, work safety procedures and equipment shall be in full accordance with the latest Cal-OSHA rules and regulations.

9.3.2 Contractor warrants that he and each of his subcontractors shall, in performance of this Contract, comply with each and every compliance order issued pursuant to Cal-OSHA. The Contractor assumes full and total responsibility for compliance with Cal-OSHA standards by his subcontractors as well as himself. The cost of complying with any order and/or payment of any penalty assessed pursuant to Cal-OSHA shall be borne by the Contractor. Nothing contained therein shall be deemed to prevent the Contractor and his subcontractors from otherwise allocating between themselves responsibility for compliance with Cal-OSHA requirements; provided, however, that the Contractor shall not thereby, in any manner whatsoever, be relieved of his responsibility to the County as herein set forth.

9.4 TOXIC AND HAZARDOUS MATERIALS AND WASTE

9.4.1 ASBESTOS

Operations which may cause release of asbestos fibers into the atmosphere shall meet the requirements of Title 8 CCR General Industrial Safety Orders, Section 5208 and California law. Some operations which may cause such concentrations include sanding, grinding, abrasive blasting, sawing, drilling, shoveling, or otherwise handling materials containing asbestos so that dust will be raised.

9.4.2 TOXIC MATERIALS

Operations which release toxic materials into the atmosphere shall meet the requirements of Title 8 CCR, General Industrial Safety Orders. Some operations which may release such materials include use of adhesives, sealants, paint, and other coatings.

9.4.3 LEAD-BASED PAINT

Lead-based paint is prohibited. Lead-based paint is defined as:

- a. Any paint containing more than five-tenths of one percentum lead by weight (calculated as lead metal in the total non-volatile content of the paint) or the equivalent measure of lead in the dried film of paint applied or both; or
- b. For paint manufactured after June 22, 1977, any paint containing more than six one-hundredths of one percentum lead by weight (calculated as lead metal) in the total content of the paint or the equivalent measure of lead in the dried film or paint already applied.

9.4.4 HAULING AND DISPOSAL

All hauling and disposal shall meet requirements of Title 22 CCR, Division 4, Chapter 30, "Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes."

9.4.5 ASBESTOS PROHIBITED

No products or materials containing asbestos shall be incorporated into the Work without the prior written approval of the County.

ARTICLE 10 COUNTY-FURNISHED PROPERTY

10.1 COUNTY-FURNISHED PROPERTY

10.1.1 The County may furnish to the Contractor property as identified in the specification(s) to be incorporated or installed into the Work or used in performing the Contract. The listed property will be furnished f.o.b. railroad cars at the place specified in the Contract or f.o.b. truck at the project site. The Contractor is required to accept delivery. When the property is delivered, the Contractor shall verify its quantity and condition and acknowledge receipt in writing to the County within twenty-four (24) hours of delivery, also specifying any damage to or shortage of the property as received. All such property shall be installed or incorporated into the Work at the expense of the Contractor, unless otherwise indicated in this Contract.

10.1.2 Each item of property to be furnished under this clause shall be identified by the Contractor in a schedule by

quantity, item, and description. Schedule form will be provided by the County.

- 10.1.3 The Contractor shall be held responsible for all material delivered to him and deductions will be made from any moneys due him to make good any shortages and deficiencies, from any cause whatsoever, which may occur after such delivery.
- 10.1.4 The Contractor shall set up accounting records and establish an inspection procedure as approved by the County.

ARTICLE 11 BENEFICIAL OCCUPANCY

11.1 BENEFICIAL OCCUPANCY

- 11.1.1 The County shall have the right to take possession of or use any completed or partially completed portion of the Work. The County's possession or use shall not be deemed an acceptance of any Work under the Contract. The Contractor will continue to pay for any portion of the utilities which he is using.
- 11.1.2 While the County has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to that portion of the Work resulting from the County's possession or use. If Contractor believes the partial possession or use by the County will delay the progress of the Work or will cause additional expense to the Contractor, Contractor shall immediately submit a written request for an equitable adjustment in the Contract price or the time of completion. County will then consider such request and, if in its judgment it is justified, the County will modify the contract in writing accordingly. In the event the Contractor disagrees with the County's decision, the Contractor shall be required to submit a claim pursuant to the DISPUTE article.

ARTICLE 12 INSPECTION AND TESTING

12.1 INSPECTION AND TESTING

- 12.1.1 The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work called for by this Contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the County. The County shall at all times have access to the Work, and the Contractor shall provide proper facilities for such access and for inspection.
- 12.1.2 County inspections and tests are for the sole benefit of the County and do not:
 - a. Relieve the Contractor of responsibility for providing adequate quality control measures;
 - b. Relieve the Contractor of responsibility for damage to or loss of the material before Acceptance;
 - c. Constitute or imply Acceptance; or
 - d. Affect the continuing rights of the County after Acceptance regarding latent defects, gross mistakes, fraud or the County's rights under any warranty or guarantee.
- 12.1.3 The presence or absence of a County inspector does not relieve the Contractor from any Contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the County's written authorization.

- 12.1.4 The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the County. The County may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. Special, full size, and performance tests shall be performed as described in the Contract.
- 12.1.5 The Contractor shall, without charge, replace or correct work found by the County not to conform to contract requirements, unless in the public interest the County consents to accept the work with an appropriate adjustment in Contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
- 12.1.6 If, before Acceptance of the Work, the County decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet Contract requirements, the County shall issue a Change Order for such removal and reinstallation.
- 12.1.7 The Contractor shall at all times maintain proper facilities and provide safe access for inspection by the County to all parts of the work, and to the shops wherein the work is in preparation. Where the specifications require work to be specially tested or approved, it shall not be tested or covered up without timely notice to the County of its readiness for inspection and without the approval or consent of County. Should any such work be covered up without such notice, approval, or consent, it must, if required by County, be uncovered for examination at the Contractor's expense.
- 12.1.8 The Contractor shall notify the County at least one (1) work day in advance of the time scheduled for the inspection. Should the Contractor fail to notify the County and proceed with work requiring inspection, all such work is rejected, and no further work shall be done on that portion of the project until the rejected work is accepted by the County. Should the Contractor request acceptance of such rejected work the County shall, at the Contractor's expense, secure the services of private material testing laboratories, consulting engineers or licensed land surveyors, who shall certify that said work does in fact conform to the requirements of the Contract Documents. The work previously rejected shall be accepted by the County after receipt of such certification if the County approves of such certification.
- 12.1.9 If the Contractor does not promptly replace or correct rejected work, the County may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.
- 12.1.10 Construction review of the Contractor's performance by the County is not intended to include the review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.
- 12.1.11 The County will pay for initial testing services specified to be performed by the County. When initial tests indicate non-compliance with the Contract Documents, subsequent retesting occasioned by the non-compliance shall be performed by the same testing agency, and costs thereof will be deducted by the County from the Contract sum.

12.2 INSPECTION BY OTHER JURISDICTIONS

Whenever any part of the Work to be performed is under the jurisdiction or control of another public entity, including but not limited to: The United States Government, State of California, or City, such work shall be subject to inspection by the officials of such entities and it must pass inspection, in addition to County

inspection, and such other inspections as may otherwise be provided for in the Contract Documents.

12.3 FINAL INSPECTION AND TESTS

The Contractor shall give the County at least ten (10) calendar days advance written notice of the date the Work will be fully completed and ready for final inspection and tests. Final inspection and tests will be started within ten (10) calendar days from the date specified in the aforementioned notice unless the County determines that the Work is not ready for final inspection and so informs the Contractor.

ARTICLE 13 ACCEPTANCE

13.1 ACCEPTANCE OF THE WORK

13.1.1 After the final inspection by County and all the contract documentation has been received, it will be recommended to the County Board of Supervisors to accept the Work and file a Notice of Completion. Upon approval of the Notice of Completion, a copy will be sent to the Contractor. (See final payment clause.) Upon Acceptance of the Work, Contractor will be relieved of the duty of maintaining and protecting the Work. Neither determination by the County that the Work is complete, nor Acceptance thereof, shall operate as a bar to County's claim against Contractor pursuant to Contractor's warranty and guarantees.

13.1.2 Partial payments shall not be construed as acceptance of any part of the Work.

13.1.3 In judging the Work, no allowance for deviations from the drawings and specifications will be made, unless already approved in writing at the time and in the manner as called for herein.

13.1.4 County shall be given adequate opportunity to make any necessary arrangements for fire insurance and extended coverage.

13.1.5 The Acceptance of the Work will not be recommended until all requirements of the Contract Documents are complete and approved by the County. This shall include, but is not limited to, all construction, guarantee forms, parts lists, schedules, tests, operating instructions, as-built drawings, and all other documentation identified by the Contract Documents.

ARTICLE 14 WARRANTY AND GUARANTEES

14.1 CONTRACTOR'S WARRANTY AND GUARANTEE

14.1.1 Contractor warrants that all materials and equipment furnished under this Contract shall be new unless otherwise specified, and that all Work performed under this Contract conforms to the Contract requirements and is free of any defect whether performed by the Contractor or any subcontractor or supplier.

14.1.2 This warranty shall continue for a period of one (1) year from the date of filing of Notice of Completion on the Work. The Performance Bond shall remain in force during the warranty period.

14.1.3 The Contractor shall remedy at the Contractor's expense any damage to County-owned or controlled real or personal property, when that damage is the result of:

- a. The Contractor's failure to conform to Contract requirements or
- b. Any defect of equipment, material, workmanship, or design furnished by the Contractor.

- 14.1.4** The Contractor shall restore any work damaged in fulfilling the terms and conditions of this Article. The Contractor's warranty with respect to work repaired or replaced will run for one (1) year from the date of repair or replacement.
- 14.1.5** The County shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage. The Contractor shall within ten (10) calendar days after being notified in writing by the County of any work not in accordance with the requirements of the Contract or any defects in the Work, commence, and perform with due diligence, all work necessary to fulfill the terms of this Article. If the Contractor fails to remedy any defect, or damage within fourteen (14) calendar days after receipt of notice, the County shall have the right to replace, repair, or otherwise remedy the defect, or damage at the Contractor's expense. Payment due to the Architect from the County for extra architectural services required in the enforcement of Contractor's guarantee after Acceptance of the Work shall be paid to the County by the Contractor.
- 14.1.6** In the event of any emergency constituting an immediate hazard to health or safety of County employees, property, or licensees, when caused by work of the Contractor that is not in accordance with the Contract requirements, the County may undertake at Contractor's expense and without prior notice, all work necessary to correct such hazardous condition(s).
- 14.1.7.** With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Contract, the Contractor shall:
- a. Obtain all warranties that would be given in normal commercial practice;
 - b. Require all warranties to be executed, in writing, for the benefit of the County, unless directed otherwise by the County; and
 - c. Enforce all warranties for the benefit of the County, unless otherwise directed by the County.
- 14.1.8** This warranty shall not limit the County's rights under the Inspection and Acceptance section(s) of this Contract with respect to latent defects, gross mistakes, or fraud.

ARTICLE 15 ENVIRONMENTAL PROTECTION

15.1 DUST CONTROL

15.1.1 The Contractor shall provide any and all dust control required.

15.1.2 Whenever the Contractor is negligent in providing dust control, the County shall order the Contractor to provide such dust control. If the Contractor does not comply promptly with such order, the County shall have the authority to provide such dust control and charge the Contractor therefore by deducting the cost from progress payments to the Contractor as such costs are incurred by the County. The County shall not be held responsible for schedule delays due to actions taken by County to mitigate the failure of the Contractor in providing dust control.

15.2 EXCESSIVE NOISE

15.2.1 The Contractor shall use only such equipment on the Work and in such state of repair, that the emission of sound therefrom is within the noise tolerance level of that equipment as established by CAL-OSHA.

15.2.2 Should the County determine that the muffling device on any equipment used on the Work is ineffective or

defective so that the noise tolerance of such equipment is exceeded, such equipment shall not, after such determination by the County, be used on the Work until its muffling device is repaired or replaced so as to bring the noise tolerance level of such equipment within such standards.

15.3 POLLUTION CONTROL, CLEANING

15.3.1 The Contractor shall not, in connection with the Work, discharge any smoke, dust, or other contaminants into the atmosphere which are in violation of South Coast Air Quality Management District standards or discharge any fluids or materials into any lake, river, stream, or channel as will violate regulations of State of California Water Resources Board. The Contractor shall control accumulation of waste materials and rubbish and dispose of waste materials and rubbish off-site at a minimum of weekly intervals. Burning of materials is not permitted.

ARTICLE 16 EMPLOYMENT PRACTICES

16.1 QUALIFICATIONS FOR EMPLOYMENT AND APPRENTICESHIP STANDARDS

16.1.1 In accordance with Section 1735 of the California Labor Code, no person under the age of 16 years and no person currently serving sentence in a penal or correctional institution shall be employed to perform any Work under this Contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed to perform Work under this Contract; provided that this requirement shall not operate against any physically handicapped persons otherwise employable where such persons may be safely assigned to Work which they ably perform.

16.1.2 This contract is subject to the provisions of Sections 1777.5 and 1777.6 of the California Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him. Section 1777.5 as amended, requires the Contractor or subcontractor employing tradesmen in any apprenticeable occupation to apply to the Joint Apprenticeship Committee nearest the site of this project and which administers the apprenticeship program in that trade for a certificate of approval. The certificate will also fix the ratio of apprentices to journeymen that will be used in the performance of the Contract.

16.1.3 The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if he employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making contributions.

16.1.4 All employees engaged in work on the project under this Contract shall have the right to organize and bargain collectively through representatives of their own choosing, and such employees shall be free from interference, restraint, and coercion of employers in the designation of such employees for the purpose of collective bargaining or other mutual aid or protection, and no person seeking employment under this Contract shall be required as a condition of initial or continued employment to join any company, union, or to refrain from joining, organizing, or assisting a labor organization of such person's own choosing. No person in the employment of the County shall be employed by this contractor.

16.2 WAGES & RECORDS

16.2.1 WAGE RATES

- a. Pursuant to Section 1770 and 1773 et seq. of the Labor Code of the State of California, the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification, or type of workman needed to execute the contract which will be awarded to the successful bidder, copies of which are on file and available

upon request at the Clerk of the Board, Board of Supervisors, 4080 Lemon St., 14th Floor, Riverside, CA 92501-3655, and shall be posted at the job site.

- b. It shall be mandatory upon the Contractor and upon any subcontractor under him, to pay not less than the said specified rates to all laborers, workmen, and mechanics employed in the execution of the Contract. It is further expressly stipulated that the Contractor shall, as a penalty to County, forfeit twenty-five dollars (\$25.00) for each calendar day, or portion thereof, for each laborer, workman, or mechanic paid less than the stipulated prevailing rates for any work done under this Contract by him or by any subcontractor under him; and Contractor agrees to comply with all provisions of Section 1770 et. seq. of the Labor Code.
- c. In case it becomes necessary for the Contractor or any sub-contractor to employ on the project under this Contract any person in a trade or occupation (except executives, supervisory, administrative, clerical, or other non-manual workers as such) for which no minimum wage rate is herein specified, the Contractor shall immediately notify the County who will promptly thereafter determine the prevailing rate for such additional trade or occupation and shall furnish the Contractor with the minimum rate based thereon. The minimum rate thus furnished shall be applicable as a minimum for such trade or occupation from the time of the initial employment of the person affected and during the continuance of such employment.
- d. The County will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth as provided herein. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his bid, and will not under any circumstances be considered as the basis of a claim against the County on the Contract.

16.2.2 WAGE RECORDS

- a. The Contractor and each subcontractor shall keep or cause to be kept an accurate record (certified payroll) showing the names and occupations of all laborers, workers, and mechanics employed by him in connection with the execution of this Contract or any subcontract thereunder. The record shall show the actual per diem wages paid to each of said workers, which records shall be provided to the County, and to the Division of Labor Standards Enforcement upon its request. Copies provided will include one which has the name and social security numbers marked out.

16.3 NOTICE OF LABOR DISPUTES

16.3.1 If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor shall immediately give notice, including all relevant information, to the County.

16.3.2 The Contractor agrees to insert the substance of this clause, including this paragraph into any subcontract in which a labor dispute may delay the timely performance of this Contract; except that each subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the subcontractor shall immediately notify the next higher tier subcontractor or the prime Contractor, as the case may be, of all relevant information concerning the dispute.

16.4 NONDISCRIMINATION

16.4.1 EQUAL EMPLOYMENT OPPORTUNITY

- a. Contractor agrees for the duration of this Contract that it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap. The Contractor will take affirmative action to insure that employees are treated during employment or training without regard to their race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- b. The Contractor will in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap.
- c. The Contractor will send to each labor union or other representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the workers' representative of the Contractor commitments under this agreement.
- d. The Contractor agrees that it will comply with the provisions of Titles VI and VII of the Civil Rights Act, Revenue Sharing Act Title 31, U.S. Code Section 2716, and California Government Code Section 12990.
- e. The Contractor agrees that it will assist and cooperate with the County, the State of California and the United States Government in obtaining compliance with the equal opportunity clause, rules, regulations, and relevant orders of the State of California and United States Government issued pursuant to the Acts.
- f. In the event of the Contractor's non-compliance with the discrimination clause, the affirmative action plan of this contract, or with any of the said rules, regulations or orders, this Contract may be canceled, terminated, or suspended in whole or in part by the County.

16.4.2 HANDICAPPED NON-DISCRIMINATION

This project is subject to Section 504 of the Rehabilitation Act of 1973 as amended, (29 U.S.C. 794), and the Americans with Disabilities Act of 1990, as amended, and all requirements imposed by the guidelines and interpretations issued thereto. In this regard, the County and all of its contractors and subcontractors will take all reasonable steps to ensure that handicapped individuals have the maximum opportunity for the same level of aid, benefit or service as any other individual.

16.4.3 FAIR EMPLOYMENT AND HOUSING ACT ADDENDUM

In the performance of this Contract, the Contractor will not discriminate against any employee or Applicant for employment because of race, sex, color, religion, ancestry, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, sex, color, religion, ancestry, or national origin. Such action shall include, but not

limited to, the following: employment, upgrading, emotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State or local agency setting forth the provisions of this Fair Employment and Housing Section.

16.4.4 ACCESS TO RECORDS

The Contractor will permit access to his records of employment, employment advertisements, application forms, and other pertinent data and records by the State Fair Employment and Housing Commission, or any other agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment and Housing section of this Contract.

16.4.5 REMEDIES FOR WILLFUL VIOLATION

The State or local agency may determine a willful violation of the Fair Employment and Housing provision to have occurred upon receipt of a final judgment having that effect from a court in an action to which Contractor was a party, or upon receipt of a written notice from the Fair Employment and Housing Commission that it has investigated and determined that the Contractor has violated the Fair Employment and Housing Act and has issued an order or obtained an injunction under Government Code Sections 12900, et seq.

ARTICLE 17 SUBCONTRACTING

17.1 SUBCONTRACTORS

17.1.1 A subcontractor is an individual, firm or corporation having a direct contract with the Contractor or with any other subcontractor for the performance of a part of the Work. In accordance with Section 4104 of the Public Contract Code, each Contractor, in his bid, shall include the name and location of each subcontractor who will perform work or labor, or render services to the Contractor in or about the Work in an amount in excess of one half of 1% of the Contractor's total bid.

17.1.2 The County reserves the right to approve all subcontractors. Such approval shall be a consideration to the awarding of the Contract and unless notification to the contrary is given to the Contractor prior to the signing of the Contract, the list of subcontractors which is submitted with his proposal will be deemed to be acceptable.

17.1.3 The Contractor shall be as fully responsible to the County for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

17.1.4 Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and the County.

17.1.5 The divisions or sections of the specifications are not intended to control the Contractor in dividing the Work among subcontractors or to limit the work performed by any trade.

17.2 RELATIONS OF CONTRACTOR AND SUBCONTRACTOR

17.2.1 The Contractor agrees to bind every subcontractor by the terms of the Contract with the County, the General Conditions, Supplementary Conditions, and the drawings and specifications as far as applicable to his work, unless specifically noted to the contrary in a subcontract approved in writing as adequate by the County.

17.3 SUBCONTRACTS

17.3.1 Pursuant to the provisions of Sections 4100 to 4114 of the California Public Contract Code, inclusive, the Contractor shall not, without the consent of the County, either:

- a. Substitute any persons as subcontractors in place of the subcontractors designated in his original bid without the consent of County. (The County's consent can only be given in cases permitted by Public Contract Code Section 4107.)
- b. Permit any subcontract to be assigned or transferred or allow any work to be performed by anyone other than the original subcontractor listed in his bid.
- c. Sublet or subcontract any portion of the work in excess of one-half of one percent of his bid to which his original bid did not designate a subcontractor.

Should the Contractor violate any of the provisions of Sections 4100 to 4114, inclusive, of the Public Contract Code, his so doing shall be deemed a violation of this Contract, and the County may either cancel the contract, or assess the Contractor a penalty in the amount of not more than ten (10) percent of the amount of the subcontract involved, or both.

ARTICLE 18 TAXES

18.1 SALES AND PAYROLL TAXES

18.1.1 Each Contractor, subcontractor, and material dealer shall include in their bid all applicable taxes including but not limited to sales tax and payroll taxes required by law.

ARTICLE 19 CHANGES

19.1 CHANGE ORDER WORK

19.1.1 The County reserves the right to make changes in the work without impairing the validity of the Contract. The County may make changes to the work, or suspend the work, and all such changes or suspension are within the contemplation of the parties and will not be a basis for compensable delay. Such changes may be made in accordance with any of the following methods:

- a. By written change order to the Contract ordered by the Board of Supervisors.
- b. By written change order, signed by the Assistant County Executive Officer/EDA, in the manner and amounts specified by Board Policy B-11.
- c. By written authorization, issued by the Assistant County Executive Officer/EDA, for items of work done under unit prices. The cost or credit for such added or omitted work shall be determined by multiplying the number of units added to or omitted from the work by the applicable unit price.

19.1.2 Upon receipt of a proposed Change Order from County, the Contractor shall submit a proposal in accordance with the requirements and limitations set forth in this "Change Orders" article, for work involved in the contemplated change.

19.1.3 The Contractor must submit a cost proposal within fifteen (15) calendar days after receipt of the proposed

change order. The Contractor must submit cost proposals in less than fifteen (15) calendar days if requested by the County or if required by schedule limitations.

- 19.1.4** If the Contractor fails to submit the cost proposal within the 15-day period (or as requested), the County has the right to order the Contractor in writing to commence the work immediately on a force account basis and/or issue a lump sum change to the contract price in accordance with the County's estimate of cost. If the change is issued based on the County estimate, the Contractor will waive his right to dispute the action unless within fifteen (15) calendar days following completion of the added/deleted work, the Contractor presents proof that the County's estimate was in error.
- 19.1.5** If the County disagrees with the proposal submitted by Contractor, it will notify the Contractor in writing and the Contractor may elect to proceed under the DISPUTE article of this Contract, or, in the event either party contests the price or time extension of Change work, or time is of the essence, the County may issue a Construction Change Directive and the contractor shall proceed with the work. The County will provide its opinion of the appropriate price and/or time extension in a "Response to Change Order Request." If the contractor agrees with the County's estimate, a change order will be issued by the County. If no agreement can be reached, the County shall have the right to issue the Change Order Directive setting forth its unilateral determination of the reasonable additions or savings in costs and time attributable to the extra or deleted work. Such determination shall become final and binding if the Contractor fails to submit a Claim in writing to the County, within twenty-one (21) days of the Change Order Directive, disputing the terms of such Directive. No dispute, disagreement or failure of the parties to reach agreement regarding the amount, if any, of any adjustment to the contract sum or contract time shall relieve the Contractor from the obligation to proceed with performance of the work, including extra work, promptly and expeditiously."
- 19.1.6** The Contractor will give notice of a requested change on his letterhead within seven (7) calendar days of discovery and, if the County agrees, a proposed change order will be issued on the County's standard change order form.
- 19.1.7** If any change involves an increase or decrease in the cost of the Contractor's work, a change order shall state the amount to be added or deducted from the Contract amount, and the additional time, if any, needed for the performance of such work.
- 19.1.8** Any changes to the Contract amount shall be in a lump sum mutually agreed to by the Contractor and the County, except that when, in the opinion of the County, such basis is not feasible the change to the Contract amount shall be determined upon a cost-plus-percentage basis with a guaranteed maximum lump sum cost within the limitations provided by law.
- 19.1.9** Each lump sum quotation from the Contractor shall be accompanied by sufficiently detailed estimates to permit verification of totals in accordance with (a) through (d) in 19.1.11 below.
- 19.1.10** When the work is to be done on a cost-plus-percentage basis, the Contractor shall submit statements as required by the County showing all labor, material, and equipment costs incurred, and upon completion of the work, a summary of costs, including overhead and profit, and in accordance with Item (a) through (d) in 19.1.11 below.
- 19.1.11** Estimates for lump sum quotations and accounting for cost-plus-percentage work shall be limited to direct expenditures necessitated specifically by the subject extra work, and shall be segregated as follows:
- a. Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the extra work is done, plus employer payments of payroll taxes

and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the extra work cost will not be permitted unless the contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

- b. **Materials.** The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery.
- c. **Tool and Equipment Use.** No payment will be made for the use of tools which have a replacement value of \$100 or less. Regardless of ownership, the rates to be used in determining equipment use costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.
- d. **Overhead, Profit and Other Charges.** The mark-up for overhead and profit on work added to the Contract shall be according to the following Schedule.
 - (1) For work performed by the Contractor's forces the added cost for overhead and profit shall not exceed fifteen (15%) percent of the net cost of the work, equipment, labor and materials.
 - (2) For work performed by a subcontractor, the added cost for overhead and profit shall not exceed fifteen (15%) percent of the net cost of the work, equipment, labor and materials, to which the Contractor may add five (5) percent of the subcontractor's price of the work.
 - (3) For work performed by a sub-subcontractor the added cost for overhead and profit shall not exceed fifteen (15 %) percent of the net cost for work, equipment, labor and materials to which sub-contractor and general contractor may each add an additional five (5 %) percent of the total price from the lower tier subcontractor.
 - (4) "Net Cost" is defined as consisting of costs of labor, materials and equipment use and/or rental only. The costs of applicable insurance and bond premium will be reimbursed to the Contractor and subcontractors at cost only, without mark-up.
 - (5) The cost of direct supervision, except when provided by working foreman whose time is included above, of change order work when done exclusively, and not in conjunction or at the same time as, other work performed on the job and when approved in advance by the County's authorized representative, including only payroll taxes, insurance, pension and direct costs for the labor of supervision may be charged to the change order. The cost of transportation, use of vehicle and other costs incurred by supervision will not be allowed.

19.1.12 For added or deducted work by subcontractors, the Contractor shall furnish to the County the subcontractor's signed detailed estimate of the cost of labor, material and equipment, including the markup by such subcontractor for overhead and profit. The same requirement shall apply to sub-subcontractors.

19.1.13 For added or deducted work furnished by a vendor or supplier, the Contractor shall furnish to the County a

detailed estimate or quotation of the cost to the Contractor for such work, signed by such vendor or supplier.

19.1.14 Any change in the work involving both extras and credits shall show a new total cost, including subcontracts. Allowance for overhead and profit, as specified therein, shall be applied if the net total cost is an extra; overhead and profit allowances shall not be applied if the net total cost is a credit. The estimated cost of deductions shall be based on labor and material prices on the date the Contract was executed.

19.1.15 The Contractor shall identify any adjustment in time of the final completion of the Work as a whole which is directly attributable to the changed work within fifteen (15) calendar days of receipt of the proposed change order. The Contractor's request for a change in time will be supported by a detailed schedule analysis including a schedule indicating the activities which have been affected and the additional time being requested.

a. For a change in time for the Work, the Contractor shall be entitled only to such adjustments where completion of the entire Work (critical path) is delayed due to the performance of the changed work. Failure to request extra time when submitting such estimate shall constitute waiver of the right to subsequently claim adjustment in time for final completion based upon such changed work.

b. If the County and the Contractor fail to arrive at an agreement on the amount of extra cost, credit or time extension for a proposed change, a change order will be processed in the amount believed by the County to be reasonable, and the Contractor shall proceed with the work. If the Contractor believes that the amount or time stipulated in the change order is not reasonable for the work required, he may elect to issue a notification in accordance with the DISPUTES article for review by the County, stating therein the basis for his dispute with such change order.

19.1.16 Any change in the Work shall conform to the original Contract Documents insofar as they may apply without conflict to the conditions involved in the change.

19.1.17 Payment for additional work or extras, if any, shall become due and payable in accordance with the provisions for payment in the Contract.

19.1.18 Contractor shall not reserve a right to assess impact cost, extended job site costs, extended overhead, and/or constructive acceleration at a later date as related to any and all changes. All costs or estimated costs must be supported with full schedule and cost documentation with each proposed change within the prescribed submission times. If a request for a change is denied and the Contractor disputes the denial, the Contractor must supply the aforementioned documentation to support his claim under the DISPUTES article of this Contract. No claims shall be allowed for impact, extended overhead costs, and/or construction acceleration due to the multiplicity of changes and/or clarifications. Any attempt by Contractor to change or modify the change order form (sample included herein) shall void the form, including any letters the Contractor may issue in conjunction therewith.

19.1.19 All alterations, extensions of time, extra and additional work and other changes authorized by these specifications or any part of the Contract may be made without securing consent of the surety or sureties on the contract bonds.

19.2 CHANGE ORDERS AND LABOR RATES GUIDELINES

19.2.1 The following are guidelines for preparing change orders:

a. Labor Rates:

- (1) To establish the labor rate for each classification and trade, a breakdown shall be submitted to the County.
- (2) Labor rates are based on current prevailing state and federal wages. Only those benefits mandated by law or a valid labor contract are paid by the County.
- (3) Payroll taxes shall be paid as mandated by law. Labor related insurances shall be paid according to industry standard average.
- (4) No other costs related to labor shall be paid by County.

b. Change Orders:

- (1) Change orders shall be prepared in accordance with the project contract.
- (2) No insurance costs are paid by County, except for labor insurances specified in this guideline under section 1 titled "LABOR RATES".
- (3) Material cost shall be broken down on a separate sheet, and for those jobs designated as time and material shall be supported by valid invoices from suppliers.
- (4) Hours for non-productive labor, such as non-working foremen or general foremen, shall be paid only when justified in the opinion of the County, and approved by the County. The total number of nonproductive labor hours shall be limited to a maximum of 15% of the total number of productive labor hours.
- (5) Cost of use of special equipment shall be paid when justified in the opinion of the County, and approved by the County. Equipment refers to special equipment that is needed to perform that specific job, and does not include the usual tools customarily required for that trade. Small tools costs are not paid by County.
- (6) Material transportation costs are paid by County when justified in the opinion of the County, and approved by the County's authorized representative.
- (7) Overhead, profit and fees on subcontracts, are paid according to the contract.
- (8) No costs other than those designated above shall be paid by County. The percentages of overhead and fee allowed with change orders have been established to account for any other direct or indirect costs that might be incurred due to the change order.

19.3 AUDIT

19.3.1 The County shall have the right to examine and audit all books, estimates, records, contracts, documents, bid documents, subcontracts, and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at no additional cost to the County.

19.3.2 The Contractor shall make available at its office at all reasonable times the materials described in paragraph 19.3.1 above, for examination, audit, or reproduction, until 4 years after final payment under this Contract.

19.3.3 The Contractor shall insert a clause containing all the provisions of this 19.3, including this paragraph, in all subcontracts over \$10,000 under this contract.

ARTICLE 20 PAYMENT

20.1 PROGRESS PAYMENTS

20.1.1 The County shall pay the Contractor the price as provided in this Contract.

20.1.2 The County shall make progress payments monthly as the Work proceeds, on estimates approved by the County. The Contractor shall furnish a breakdown of the total contract price, in a format provided by the County, showing the amount included therein for each principal category of the work, in such detail as requested, to provide a basis for determining progress payments.

20.1.3 Contractor shall submit to the County vouchers, schedule activities, or other satisfactory proof of the value of any work for which he claims payment on such account, and receipts showing that progress payments have been duly made on such contracts, and for materials furnished.

20.1.4 In the preparation of estimates, the County may authorize 75% of the value of material delivered and satisfactorily stored on the site, and preparatory work done to be taken into consideration for major equipment if:

- a. Consideration is specifically authorized by this Contract; and
- b. The Contractor furnishes certified receipt that it has acquired title and paid invoices for such material and that the material will be used to perform this Contract.

20.1.5 On the 25th of each month the Contractor will submit his request for payment. Prior to that submittal the County will review the requested percentage of completion for each activity. The payment request will be in the format as provided by the County and will refer to the schedule.

20.1.6 Upon receipt of a payment request, the County shall:

- a. Review that request as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request; and
- b. Any payment request determined not to be a proper request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) calendar days after receipt. The returned request for payment shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.

20.1.7 Any progress payment which is undisputed and properly submitted and remains unpaid for thirty (30) calendar days after receipt by County shall accrue interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the California Code of Civil Procedure. The number of days available to the County to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the County exceeds the seven-day return requirement set forth in 20.1.6 above.

20.1.8 In making these progress payments, there shall be retained ten percent (10%) from the amount of each progress payment until the work is 50% complete. After the 50% completion point, if satisfactory progress

is being made and at the sole discretion of the County, the retention may be reduced to a minimum of 5% of the contract .

- 20.1.9** Except as otherwise prohibited by law, the Contractor may elect to receive all payments due under the contract pursuant to this section without any retention, by posting securities in accordance with Public Contract Code Section 22300.
- 20.1.10** Contractor and each subcontractor shall pay each of its employees engaged in work under this Contract in full (less deductions made mandatory by law) in accordance with California law.
- 20.1.11** The County may withhold (in excess of retentions) or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect the County from loss on account of:
- a. Defective work not remedied.
 - b. Claims filed or reasonable evidence indicating probable filing of claims.
 - c. Failure of the Contractor to make payments properly to subcontractors or for material or labor.
 - d. Damage to another Contractor.
 - e. Delays in progress toward completion of the work, with the stipulated amount of liquidated damages being withheld for each day of delay for which no extension is granted.
 - f. Default of the Contractor in the performance of the terms of the Contract.
- 20.1.12** Should stop notices be filed with the County, County shall withhold the amount required plus 25% from certificates until such claims shall have been resolved pursuant to applicable law. California Civil Code Section 3179 et seq.
- 20.1.13** Contractor shall provide (1) forms of conditional releases of stop notice and bond rights upon progress payment, complying with California Civil Code Section 3262(d)(1), for all work performed during the time period covered by the current Application for Payment, signed by the Contractor and the subcontractors of every tier; and (2) forms of unconditional release of stop notice and bond rights upon progress payment, complying with Civil Code Section 3262(d)(2) for all work performed during the time period covered by previous Application for Payment, signed by Contractor and the subcontractors of every tier.
- 20.1.14** All material and work covered by progress payments made shall, at the time of payment, become the sole property of the County, but this shall not be construed as:
- a. An acceptance of any work not in accordance with the Contract Documents; or
 - b. Waiving the right of the County to require the fulfillment of all of the terms of the contract.

20.2 FINAL PAYMENT

20.2.1 GENERAL

- a. The County shall pay the amount due the Contractor under this Contract after:
 - 1.) The Acceptance of all work and Notice of Completion per the terms of this Contract;
 - 2.) Presentation of a properly executed voucher;
 - 3.) Submission of conditional releases and waivers of stop notice and bond rights upon final payment in the form required by California Civil Code Section 3262(d)(3) executed by Contractor and by all the subcontractors of every Tier.
 - 4.) Presentation of release of all claims against the County arising by virtue of this Contract, other than claims and disputes in stated amounts, that the Contractor has specifically excepted from the operation of the release.
- b. The Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the County, to indemnify him against any lien.

20.2.2 FINAL CERTIFICATE FOR PAYMENT

- a. When the work is ready for acceptance by the County, the Economic Development Agency will certify and submit to the Board of Supervisors a Notice of Completion. Upon approval of the Notice of Completion, a copy will be sent to the Contractor.
- b. Notice of Completion will be recorded by the County upon completion and Acceptance of the Work. Providing no stop notices have been filed, thirty-five (35) calendar days after filing of such Notice of Completion, payment due under the contract will become due to the Contractor and the County shall so certify authorizing the final payment.

20.2.3 FINAL PAYMENT

- a. After Acceptance of Work, the County will submit to Contractor a statement of the sum due Contractor under this contract, together with County payment in the amount thereof. Said statement shall take into account the contract price, as adjusted by any change orders; amounts already paid; sums to be withheld for incomplete work; liquidated damages; and for any other cause under the Contract.
- b. The Contractor shall, from the effective date of Acceptance until the expiration of four years after final settlement under this Contract, preserve and make available to the County, all its books, records, documents, and other evidence bearing on the costs and expenses of the Contractor under this Contract.

ARTICLE 21 SUSPENSION OF WORK/TERMINATION

21.1 NON-COMPLIANCE WITH CONTRACT REQUIREMENTS

- 21.1.1 In the event the Contractor, after receiving written notice from the County of non-compliance with any requirement of this Contract, fails to promptly initiate appropriate action to comply with the specified requirement, the County shall have the right to withhold payment for work completed under the Contract until the Contractor has complied with the notice or has initiated such action as may be appropriate to comply, within a reasonable period of time. The Contractor shall not be entitled to any extension of contract time or

payment for any costs incurred for work under this article.

21.1.2 Should the Contractor abandon the Work called for under the Contract, or assign his Contract, or unnecessarily and unreasonably delay the work, or willfully violate or perform the work in bad faith, the County shall have the power to notify the Contractor to discontinue all work or any part thereof under this Contract, and thereupon the Contractor shall cease to continue said work or such part thereof as the County may designate, and the County shall have the power to employ such persons as it may consider desirable, and to obtain by contract, purchase, hire or otherwise, such implements, tools, material or materials as the County may deem advisable to work at and be used to complete the work herein described, or such part thereof as shall have not been completed, and to use such material as it may find upon the site of the work, and to charge the expense of such labor and material, implements and tools to the Contractor, and the expense so charged shall be deducted and paid by the County out of such monies as may either be due, or may at any time thereafter become due to the Contractor under the Contract.

21.2 TERMINATION

21.2.1 TERMINATION FOR BREACH

If the Contractor should be adjudged bankrupt or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he or any of his subcontractors should violate any of the provisions of the Contract, the County may serve written notice upon him and his surety of its intention to terminate Contractor's performance hereunder, said notice shall contain the reasons for such intention to terminate Contractor's performance, and, unless within ten (10) calendar days after serving of said notice, such violation shall cease and satisfactory arrangements for correction thereof be made, Contractor's performance shall, upon the expiration of said ten (10) calendar days, cease and terminate. In the event of any such termination, the County shall immediately serve written notice thereof upon the surety and the Contractor, and the County may take over the Contractor's work and prosecute the same to completion by contract or by any other method it may deem advisable, for the account and at the expense of the Contractor, and the Contractor and his surety shall be liable to the County for any excess cost occasioned the County thereby, and in such event the County may without liability for so doing take possession of and utilize in completing the work, such materials, appliances, plants, and other property belonging to the Contractor as may be on the site of the work and necessary therefore.

21.2.2 TERMINATION FOR CONVENIENCE

- a. If the construction of the project herein is damaged, which damage is determined to have been proximately caused by an Act of God, in excess of 5% of the contract amount, provided that the work damaged is built in accordance with applicable building standards and the plans and specifications, then the County may, without prejudice to any other right or remedy, terminate the Contract.
- b. The County may terminate performance of work under this Contract in whole or in part, if the County determines that a termination is in the County's interest. The County shall terminate by delivering to the Contractor a Notice to Terminate specifying the extent of termination and the effective date.
- c. After receipt of such Notice, and except as directed by the County, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:
 - (1) Stop work as specified in the notice.

- (2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete any continued portion of the Contract.
 - (3) To terminate all subcontracts to the extent they relate to the work terminated.
 - (4) With approval or ratification to the extent required by the County, settle all outstanding liabilities and termination settlement proposals arising from termination of subcontracts; the approval or ratification will be final for purposes of this clause.
 - (5) As directed by the County, transfer title and deliver to the County (1) the fabricated or unfabricated parts; work in progress, completed work, supplies, and other material produced or acquired for the work terminated; and (2) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the County.
 - (6) Complete performance of work not terminated.
 - (7) Take any action that may be necessary, or that the County may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the County has or may acquire an interest.
 - (8) Use its best efforts to sell, as directed or authorized by the County, any property of the types referred to in subparagraphs above; provided, however, that the Contractor (1) is not required to extend credit to any purchaser and (2) may acquire the property under the conditions prescribed by, and at prices approved by the County. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the County under this contract, credited to the price or cost of the work, or paid in any other manner directed by the County.
- d. After termination, the Contractor shall submit a final termination settlement proposal to the County in the form and with the certification prescribed by the County. The Contractor shall submit the proposal promptly, but no later than thirty (30) days from the effective date of termination. If the Contractor fails to submit the proposal within the time allowed, the County may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.
- e. Subject to subparagraph (2) above, the Contractor and the County may agree upon the whole or any part of the amount to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, may not exceed the total contract price as reduced by:
- (1) the amount of payments previously made and;
 - (2) the contract price of work not terminated. The contract shall be amended with a Change Order, and the Contractor paid the agreed amount.

- f. If the Contractor and County fail to agree on the whole amount to be paid the Contractor because of the termination of work, the County shall pay the Contractor the amounts determined as follows:
- (1) For contract work performed before the effective date of termination, the total (without duplication of any terms) of:
 - (i) The cost of this work;
 - (ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (i) above; and
 - (iii) A sum, as profit on (i) above, determined by the County to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the County shall allow no profit under this subdivision (iii).
 - (2) The reasonable costs of settlement of the work terminated including:
 - (i) Accounting, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data; and
 - (ii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- g. Except for normal spoilage, the County shall exclude from the amounts payable to the Contractor the fair value, as determined by the County, of defective work, and of property that is destroyed, lost, stolen, or damaged so as to become undeliverable.
- h. The Contractor shall have the right to make a claim under the DISPUTES article, from any determination made by the County.
- i. In arriving at the amount due the Contractor, there shall be deducted:
- (1) All unliquidated advance or other payments to the Contractor under the terminated portion of this Contract;
 - (2) Any claim which the County has against the Contractor under this Contract; and
 - (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the County.
- j. If the termination is partial, the Contractor may file a proposal with the County for a Change Order of the price(s) of the continued portion of the Contract. The County shall process any Change Order agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within thirty (30) days from the effective date of termination unless extended in writing by the County.
- k. The County may, under the terms and conditions it prescribes, make partial payments and

payments against costs incurred by the Contractor for the terminated portion of the Contract, if the County believes the total of these payments will not exceed the amount to which the Contractor will be entitled. If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the County upon demand, together with interest.

1. Unless otherwise provided in this Contract or by statute, the Contractor will maintain all records and documents relating to the terminated portion of this Contract for 4 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this Contract. The Contractor shall make these records and documents available to the County, State and/or the U.S. Government or their representatives at all reasonable times, without any direct charge.

ARTICLE 22 DISPUTES/CLAIMS

22.1 CLAIMS RESOLUTION

In accordance with Public Contract Code Sections 20104 20104.6 and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and the Owner shall be resolved under the following the statutory procedure unless the Owner has elected to resolve the dispute pursuant to Public Contract Code Section 10240 et seq.

- a. All claims shall be submitted in writing and accompanied by substantiating documentation. Claims must be filed on or before the date of final payment unless other notice requirements are provided in the contract. "Claim" means a separate demand by the claimant for (1) a time extension, (2) payment of money or damages arising from work done by or on behalf of the claimant and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled, or (3) an amount the payment of which is disputed by the Owner.
- b. Claims Under \$50,000. The Owner shall respond in writing to the claim within 45 days of receipt of the claim, or, the Owner may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the Owner may have. Of additional information is needed thereafter, it shall be provided upon mutual agreement of the Owner and the claimant. The Owner's written response shall be submitted 15 days after receiving the additional documentation, or within the same period of time taken by the claimant to produce the additional information, whichever is greater.
- c. Claims over \$50,000 but less than or equal to \$375,000. The Owner shall respond in writing within 60 days of receipt, or, may request in writing within 30 days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims the Owner may have against the claimant. If additional information is needed thereafter, it shall be provided pursuant to mutual agreement between the Owner and the claimant. The Owner's response shall be submitted within 30 days after receipt of the further documents, or within the same period of time taken by the claimant to produce the additional information or documents, whichever is greater. The Contractor shall make these records and documents available to the County, State and/or the U.S. Government or their representatives at all reasonable times, without any direct charge.
- d. If the claimant disputes the Owner's response, or if the Owner fails to respond within the statutory time period(s), the claimant may so notify the Owner within 15 days of the receipt

of the response or the failure to respond, and demand an informal conference to meet and confer for settlement. Upon such demand, the Owner shall schedule a meet and confer conference within 30 days.

- e. If following the meet and confer conference, the claim or any portion thereof remains in dispute, the claimant may file a claim pursuant to Government Code 900 et seq. and Government Code 910 et seq. For purposes of those provisions, the time within which a claim must be filed shall be tolled from the time the claimant submits the written claim until the time the claim is denied, including any time utilized for the meet and confer conference.
- f. If a civil action is filed to resolve any claim, the provisions of Public Contract Code 20104.4 shall be followed, providing for nonbinding mediation and judicial arbitration.

22.2 CLAIM FORMAT/REQUIREMENTS

22.2.1 The Contractor will submit the claim justification in the following format:

- a. Summary of claim merit and price plus clause under which the claim is made.
- b. List of documents relating to claim
 - (a) Specifications
 - (b) Drawings
 - (c) Clarifications (RFIS)
 - (d) Schedules
 - (e) Other
- c. Chronology of events and correspondence
- d. Analysis of claim merit
- e. Analysis of claim cost
- f. Analysis of Time in CPM format
- g. Cover letter and certification (form included herein)

22.2.2 If any claim submitted includes a request for overhead, the County may request a Profit & Loss statement and supporting documentation from Contractor. If requested, such documentation must be submitted for the County to consider the claim.

22.2.3 Submission of a claim, properly certified, with all required supporting documentation, and written rejection or denial of all or part of the claim by County, is a condition precedent to any action, proceeding, litigation, suit, general conditions claim, or demand for arbitration by Contractor.

22.3 NOTICE OF THIRD PARTY CLAIMS

The County shall provide notification to the Contractor within a reasonable time after receipt of any third-party claim relating to the Construction Contract.

PROJECT MANUAL

FOR

DEDICATED AIR CONDITIONING FOR INFORMATION TECHNOLOGY ROOMS AT RIVERSIDE CENTER

SC ENGINEERS, INC
17075 Via Del Campo, First Floor
San Diego, CA 92127
858-946-0333

August, 2011



SECTION 01000

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END OF SECTION



SECTION 01100

SUMMARY

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Project consists of installation of HVAC systems to serve the IT computer rooms in the existing Riverside Center Building. Work includes installation of a dedicated chilled water plant and associated pumps, piping, controls fan coil units, and associated electrical wiring, conduits, VFDs and connections for the HVAC equipment and controls, and incidental related requirements.

- 1. Project Location: 3403 Tenth Street, Riverside, CA.
- 2. Owner: County of Riverside.

1.3 CONTRACTS

- A. Project may be constructed under multiple contracts.
- B. Multiple contracts are separate contracts, representing significant construction activities, between Owner and separate contractors. Each contract is performed concurrently and coordinated closely with construction activities performed on Project under other contracts. Contracts for this Project may include the following:
 - 1. Mechanical systems and related work.
 - 2. Electrical systems and related work.
 - 3. Concrete and paving repair and related work.
 - 4. At the County's option, all or part of the work may be combined into a single construction contract.

1.4 BID ITEMS

- A. The following paragraphs provide descriptions of the Bid Items required for this project. Each proposal shall identify the separate costs for the Base Bid and each Additive Bid Item:
 - 1. BASE BID: All work is included under the Base Bid.

1.5 WORK SEQUENCE



- A. The Work shall be conducted to maintain operation of the facility computer systems, HVAC systems and electrical systems.
- B. Remove all temporary utilities and equipment after the work is complete and all systems are operating properly under the new systems.

1.6 WORK UNDER OTHER CONTRACTS

- A. Separate Contract: Owner may award a separate contract for performance of certain construction operations at the Project site. Those operations are scheduled to be accomplished concurrent with this work.
- B. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

1.7 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "Master Format" numbering system.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
- C. Any reference to the "Architect" shall be understood to mean the "Engineer".

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION



SECTION 01140

WORK RESTRICTIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
 - 1. Limits: Confine constructions operations to the areas indicated.
 - 2. Owner Occupancy: Allow for Owner occupancy of site.
 - 3. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
 - 4. All work shall be scheduled with the County to avoid interruption of on-going activities.
- B. Use of Existing Building: Maintain existing building in a weathertight condition throughout the construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.
- C. Maintain continuous operation of the owner's HVAC, Electrical, IT, and Communications equipment including all supporting mechanical and electrical equipment.

1.3 OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION



SECTION 01320

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's Construction Schedule.
 - 2. Submittals Schedule.
 - 3. Daily construction reports.
- B. Related Sections include the following:
 - 1. Division 1 Section "Submittal Procedures" for submitting schedules and reports.
 - 2. Division 1 Section "Quality Requirements" for submitting a schedule of tests and inspections.
 - 3. Division 1 Section "Closeout Procedures" for submitting photographic negatives as Project Record Documents at Project closeout.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration and contains no float.



- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time belongs to Owner.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- G. Major Area: A story of construction, a separate building, or a similar significant construction element.
- H. Milestone: A key or critical point in time for reference or measurement.
- I. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.

1.4 SUBMITTALS

- A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor.
 - 5. Description of the Work covered.
 - 6. Scheduled date for Engineers' final release or approval.
- B. Preliminary Construction Schedule: Submit two printed copies; one a single sheet of reproducible media, and one a print.
- C. Preliminary Network Diagram: Submit two printed copies; one a single sheet of reproducible media, and one a print; large enough to show entire network for entire construction period.
- D. Contractor's Construction Schedule: Submit two printed copies of initial schedule, one a reproducible print and one a blue- or black-line print, large enough to show entire schedule for entire construction period.



- E. CPM Reports: Concurrent with CPM schedule, submit three printed copies of each of the following computer-generated reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float.
 - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
 - 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
 - 3. Total Float Report: List of all activities sorted in ascending order of total float.
 - 4. Earnings Report: Compilation of Contractor's total earnings from the Notice to Proceed until most recent Application for Payment.
- F. Daily Construction Reports: Submit two copies at weekly monthly intervals.
- G. Material Location Reports: Submit two copies at weekly monthly intervals.
- H. Field Condition Reports: Submit two copies at time of discovery of differing conditions.
- I. Special Reports: Submit two copies at time of unusual event.

1.5 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting.

1.6 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 PRODUCTS

2.1 SUBMITTALS SCHEDULE



- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Initial Submittal: Submit concurrently with preliminary bar-chart schedule. Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - a. At Contractor's option, show submittals on the Preliminary Construction Schedule, instead of tabulating them separately.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Engineer.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 45 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
 - 4. Startup and Testing Time: Include the required number of days for startup and testing.
 - 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Owner's and Engineer's administrative procedures necessary for certification of Substantial Completion.



- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Work under More Than One Contract: Include a separate activity for each contract.
 3. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Uninterruptible services.
 - c. Use of premises restrictions.
 - d. Provisions for future construction.
 - e. Seasonal variations.
 4. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Fabrication.
 - e. Deliveries.
 - f. Installation.
 - g. Tests and inspections.
 - h. Adjusting and Commissioning.
 - i. Curing.
 - j. Startup and placement into final use and operation.
 5. Area Separations: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities.
- E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.



- F. **Contract Modifications:** For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall project schedule.

2.3 PRELIMINARY CONSTRUCTION SCHEDULE

- A. **Bar-Chart Schedule:** Submit preliminary horizontal bar-chart-type construction schedule within seven days of date established for the Notice to Proceed.
- B. **Preparation:** Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities throughout the project construction.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. **Gantt-Chart Schedule:** Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 15 days of date established for the Notice to Proceed. Base schedule on the Preliminary Construction Schedule and whatever updating and feedback was received since the start of Project.
- B. **Preparation:** Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

2.5 REPORTS

- A. **Daily Construction Reports:** Prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. Approximate count of personnel at Project site.
 - 3. High and low temperatures and general weather conditions.
 - 4. Accidents.
 - 5. Meetings and significant decisions.
 - 6. Unusual events (refer to special reports).
 - 7. Stoppages, delays, shortages, and losses.
 - 8. Emergency procedures.
 - 9. Orders and requests of authorities having jurisdiction.
 - 10. Change Orders received and implemented.
 - 11. Services connected and disconnected.
 - 12. Equipment or system tests and startups.



13. Substantial Completions authorized.

2.6 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At weekly intervals, update schedule to reflect actual construction progress and activities. Issue schedule two days before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Engineer, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies at the construction site.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION



SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
 - 1. Division 1 Section "Quality Requirements" for submitting test and inspection reports and Delegated-Design Submittals.
 - 2. Division 1 Section "Closeout Procedures" for submitting warranties Project Record Documents and operation and maintenance manuals.
 - 3. Division 1 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Informational Submittals: Written information that does not require Engineer's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Engineer for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.



- a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal.
 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Concurrent Review: Where concurrent review of submittals by Engineer's consultants, Owner, or other parties is required, allow 21 days for initial review of each submittal.
 - a. All fire protection systems.
 3. If intermediate submittal is necessary, process it in same manner as initial submittal.
 4. Allow 15 days for processing each resubmittal.
 5. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- E. Identification: Place a permanent label or title block on each submittal for identification.
 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 4 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Engineer.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.



- h. Unique identifier, including revision number.
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals. All proposed deviations shall be submitted separately from the product submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will discard submittals received from sources other than Contractor.
- 1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
 - 2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
 - 3. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Submittal and transmittal distribution record.
 - i. Remarks.
 - j. Signature of transmitter.



- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Engineer in connection with construction.
- K. Electronic submittals via email are encouraged. All requirements except the number of copies apply to electronic submittals.

PART 2 PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
 - 1. Number of Copies: Submit four copies of each submittal, unless otherwise indicated. Engineer will return two copies. Mark up and retain one returned copy as a Project Record Document.
- B. Product Data: Collect information into a single submittal for each specification section. Include each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operating and maintenance manuals.

- k. Compliance with recognized trade association standards.
 - l. Compliance with recognized testing agency standards.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
- 1. Preparation: Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Design calculations.
 - j. Compliance with specified standards.
 - k. Notation of coordination requirements.
 - l. Notation of dimensions established by field measurement.
 - 2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 - 3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 22 by 34 inches.
 - 4. Number of Copies: Submit one correctable, translucent, reproducible print and one blue- or black-line print of each submittal. Engineer will return the reproducible print.



5. Number of Copies: Submit three blue- or black-line prints of each submittal, unless prints are required for operation and maintenance manuals. Submit five prints where prints are required for operation and maintenance manuals. Engineer will retain two prints; remainder will be returned. Mark up and retain one returned print as a Project Record Drawing.
 6. Number of Copies: Submit one correctable, translucent, reproducible print and one blue- or black-line print. Engineer, will return the reproducible print.
- D. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product.
 2. Number and name of room or space.
 3. Location within room or space.
- E. Delegated-Design Submittal: Comply with requirements in Division 1 Section "Quality Requirements."
- F. Submittals Schedule: Provide a submittal schedule indicating all submittals required at the status of each.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Engineer will not return copies.
 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 3. Test and Inspection Reports: Comply with requirements in Division 1 Section "Quality Requirements."
- B. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- C. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.



- D. **Installer Certificates:** Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- E. **Manufacturer Certificates:** Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- F. **Material Certificates:** Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- G. **Material Test Reports:** Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- H. **Preconstruction Test Reports:** Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements.
- I. **Compatibility Test Reports:** Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- J. **Field Test Reports:** Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
- K. **Product Test Reports:** Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- L. **Research/Evaluation Reports:** Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.



7. Limitations of use.
- M. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 1 Section "Closeout Procedures."
- N. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- O. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
1. Preparation of substrates.
 2. Required substrate tolerances.
 3. Sequence of installation or erection.
 4. Required installation tolerances.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- P. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.



- Q. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- R. Material Safety Data Sheets: Submit information directly to Owner. If submitted to Architect, Architect will not review this information but will return it with no action taken.

PART 3 EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ENGINEER'S ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or modifications required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
- C. Informational Submittals: Engineer will review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
- D. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION

SECTION 01400

QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by Engineer, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
 - 1. Division 1 Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
 - 2. Divisions 2 through 16 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Engineer.



- C. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.4 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

1.5 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.
- C. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Description of test and inspection.
 - 3. Identification of applicable standards.
 - 4. Identification of test and inspection methods.
 - 5. Number of tests and inspections required.
 - 6. Time schedule or time span for tests and inspections.
 - 7. Entity responsible for performing tests and inspections.
- D. Reports: Prepare and submit certified written reports that include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.



5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 11. Name and signature of laboratory inspector.
 12. Recommendations on retesting and reinspecting.
- E. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- B. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- C. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- D. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.



1.7 QUALITY CONTROL

- A. Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- B. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- C. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
- D. Testing Agency Responsibilities: Cooperate with Engineer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
 - 5. Do not perform any duties of Contractor.



- E. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field-curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- F. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- G. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within 15 days of date established for the Notice to Proceed.
 - 1. Distribution: Distribute schedule to Owner, Engineer, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.



2. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."
 - B. Protect construction exposed by or for quality-control service activities.
 - C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION



SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.
- B. Temporary utilities include, but are not limited to, the following:
 - 1. Sanitary facilities, including toilets, wash facilities, and drinking-water facilities.
 - 2. Heating and cooling facilities.
 - 3. Electric power and Telephone service.
- C. Support facilities include, but are not limited to, the following:
 - 1. Project identification and temporary signs.
 - 2. Waste disposal facilities.
 - 3. Storage and fabrication sheds.
 - 4. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities include, but are not limited to, the following:
 - 1. Environmental protection.
 - 2. Security enclosure and lockup.
 - 3. Barricades, warning signs, and lights.
 - 4. Temporary enclosures.
 - 5. Temporary partitions.
 - 6. Fire protection.
- E. Related Sections include the following:



1. Division 1 Section "Submittal Procedures" for procedures for submitting copies of implementation and termination schedule and utility reports.

1.3 USE CHARGES

- A. General: Cost or use charges for temporary facilities are not chargeable to Owner or Engineer and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:
 1. Owner's construction forces.
 2. Occupants of Project.
 3. Architect.
 4. Testing agencies.
 5. Personnel of authorities having jurisdiction.
- B. Water Service: Use water from Owner's existing water system without metering and without payment of use charges.
- C. Electric Power Service: Use electric power from Owner's existing system without metering and without payment of use charges.

1.4 SUBMITTALS

- A. Temporary Utility Reports: Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.

1.5 QUALITY ASSURANCE

- A. Standards: Comply with ANSIA10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.
 1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
 2. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

- A. Temporary Utilities: At earliest feasible time, when acceptable to Owner, change over from use of temporary service to use of permanent service.



1. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:
 1. Keep temporary services and facilities clean and neat.
 2. Relocate temporary services and facilities as required by progress of the Work.

PART 2 PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Owner. Provide materials suitable for use intended.
- B. Tarpaulins: Fire-resistive labeled with flame-spread rating of 15 or less.
- C. Water: Potable.

2.2 EQUIPMENT

- A. General: Provide equipment suitable for use intended.
- B. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.
 1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
- C. Self-Contained Toilet Units: Single-occupant units of chemical, aerated recirculation, or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- D. Drinking-Water Fixtures: Containerized, tap-dispenser, bottled-water drinking-water units, including paper cup supply.
- E. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button, and pilot light.

PART 3 EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.



- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where utility company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
 - 2. Provide adequate capacity at each stage of construction. Before temporary utility is available, provide trucked-in services.
 - 3. Obtain easements to bring temporary utilities to Project site where Owner's easements cannot be used for that purpose.
- B. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Toilets: Use of Owner's existing toilet facilities will not be permitted.
 - 2. Drinking-Water Facilities: Provide bottled-water, drinking-water units.
 - 3. Locate toilets and drinking-water fixtures so personnel need not walk more than two stories vertically to facilities.
- D. Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- E. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.
 - 1. Provide waterproof connectors to connect separate lengths of electrical power cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- F. Telephone Service: Provide temporary telephone service throughout construction period for common-use facilities used by all personnel engaged in construction activities.
 - 1. Post a list of important telephone numbers.



- a. Police and fire departments.
 - b. Ambulance service.
 - c. Contractor's home office.
 - d. Engineers' offices.
 - e. Owner's office.
 - f. Principal subcontractors' field and home offices.
2. Provide an answering machine or voice-mail service for superintendent's telephone.
 3. Furnish superintendent with electronic paging device for use when away from field office.
 4. Provide a portable cellular telephone for superintendent's use in making and receiving telephone calls when away from field office.
 5. Install a coin-operated telephone station at a convenient grade-level location for convenience of personnel.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
1. Locate storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access.
 2. Provide incombustible construction for items located within construction area or within 30 feet of building lines. Comply with NFPA 241.
 3. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Project Identification and Temporary Signs: Install signs where required to inform public and persons seeking entrance to Project. Do not permit installation of unauthorized signs.
- C. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Containerize and clearly label hazardous, dangerous, or unsanitary waste materials separately from other waste. Comply with Division 1 Section "Execution Requirements" for progress cleaning requirements.
- D. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility services. Sheds may be open shelters or fully enclosed spaces within building or elsewhere on-site.



- E. Existing Stair Usage: Use of Owner's existing stairs will be permitted, as long as stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If, despite such protection, stairs become damaged, restore damaged areas so no evidence remains of correction work.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects. Avoid using tools and equipment that produce harmful noise. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near Project site.
- B. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard. Where appropriate and needed, provide lighting, including flashing red or amber lights.
1. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch-thick exterior plywood.
- C. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weather-tight enclosure for building exterior.
- D. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
1. Construct dustproof, floor-to-ceiling partitions of not less than nominal 4-inch studs, 2 layers of 3-mil polyethylene sheets, inside and outside temporary enclosure. Cover floor with 2 layers of 3-mil polyethylene sheets, extending sheets 18 inches up the side walls. Overlap and tape full length of joints. Cover floor with 3/4-inch fire-retardant plywood.
 2. Insulate partitions to provide noise protection to occupied areas.
 3. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
 4. Protect air-handling equipment.
 5. Weatherstrip openings.
- E. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.



1. Store combustible materials in containers in fire-safe locations.
2. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for firefighting. Prohibit smoking in hazardous fire-exposure areas.
3. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
4. Permanent Fire Protection: At earliest feasible date in each area of Project, complete installation of permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.
5. Develop and supervise an overall fire-prevention and first-aid fire-protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.5 OPERATION, TERMINATION, AND REMOVAL

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

END OF SECTION



SECTION 01700

EXECUTION REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:

- 1. Construction layout.
- 2. Field engineering and surveying.
- 3. General installation of products.
- 4. Coordination of Owner-installed products.
- 5. Progress cleaning.
- 6. Starting and adjusting.
- 7. Protection of installed construction.
- 8. Correction of the Work.

- B. Related Sections include the following:

- 1. Division 1 Section "Submittal Procedures" for submitting surveys.
- 2. Division 1 Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
- 3. Division 1 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 EXAMINATION



- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
 - 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, and water-service piping; and underground electrical.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Owner not less than two days in advance of proposed utility interruptions.



2. Do not proceed with utility interruptions without Owner's written permission.

- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Engineer. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the existing work. If discrepancies are discovered, notify Engineer promptly.
- B. Site Improvements: Locate and lay out site improvements, including pavements, utility slopes, and invert elevations.

3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.



- F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
 - 2. Allow for building movement, including thermal expansion and contraction.
- G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.5 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.
 - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 - 2. Preinstallation Conferences: Include Owner's construction forces at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

3.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.



- D. **Installed Work:** Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. **Concealed Spaces:** Remove debris from concealed spaces before enclosing the space.
- F. **Exposed Surfaces:** Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. **Cutting and Patching:** Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
 - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- H. **Waste Disposal:** Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- K. **Limiting Exposures:** Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.7 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. **Manufacturer's Field Service:** If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.8 PROTECTION OF INSTALLED CONSTRUCTION



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

3.9 CORRECTION OF THE WORK

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

END OF SECTION



SECTION 01731

CUTTING AND PATCHING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Division 1 Section "Selective Demolition" for demolition of selected portions of the building for alterations.
 - 2. Divisions 2 through 16 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
 - a. Requirements in this Section apply to mechanical and electrical installations. Refer to Divisions 15 and 16 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.3 DEFINITIONS

- A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to Existing Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.



5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out of service. Indicate how long service will be disrupted.
6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
7. Engineer's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that will result in increased maintenance or decreased operational life or safety.
- C. Locate floor and roof penetrations to avoid cutting existing reinforcing. The contractor shall X-ray all concrete floor and roof slabs prior to cutting or drilling to identify the location of existing reinforcing steel.
- D. Miscellaneous Elements: Do not cut and patch the following elements or related components in a manner that could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that will result in increased maintenance or decreased operational life or safety.
 1. Water, moisture, or vapor barriers.
 2. Membranes and flashings.
 3. Exterior curtain-wall construction.
 4. Equipment supports.
 5. Piping, ductwork, vessels, and equipment.
 6. Noise- and vibration-control elements and systems.
- E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Engineer's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.



1. If possible, retain original Installer or fabricator to cut and patch exposed Work listed below. If it is impossible to engage original Installer or fabricator, engage another recognized, experienced, and specialized firm.
 - a. Roofing. The existing roofing system was installed by Cabral Roofing & Waterproofing Corp. [(323) 832-9100 Fidel Cabral].
 - b. Ceilings
- F. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.
- B. All work associated with or impacting the existing roof shall be accomplished to maintain the existing roofing warranty. The existing single ply roofing system is manufactured by Firestone Roofing. Provide certificate of compliance from the roofing manufacturer.

PART 2 PRODUCTS

2.1 MATERIALS

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

PART 3 EXECUTION

3.1 EXAMINATION

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

3.2 PREPARATION



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

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Verify locations of existing reinforcing prior to cutting concrete. Avoid cutting reinforcing cables in prestressed concrete planks.
 - 5. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 - 6. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 7. Proceed with patching after construction operations requiring cutting are complete.



- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

END OF SECTION