PLANS AND SPECIFICATIONS
FOR

VCMC COLSTON BUILDING DEMOLITION

SPECIFICATION NO. CP22-02

PROJECT NO. P6T20011

PUBLIC WORKS
VENTURA COUNTY

county of ventura
ENGINEERING SERVICES

EXHIBIT 2

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

NOTICE INVITING BIDS, PROPOSAL FORM, & SPECIFICATIONS

FOR

PROJECT NAME: VCMC COLSTON BUILDING DEMOLITION

LOCATION: 375 HILLMONT AVE, VENTURA CA 93003

SPEC. NO.: CP22-02 **COST ACCOUNTING PROJECT NO.: P6T20011**

DESIGNED BY: PHOENIX CIVIL ENGINEERING, INC. **CHECKED BY: JON TURNER**

REVIEWED BY: DEVI NALLAMALA

PROJECT MANAGER: DEVI NALLAMALA

REGISTERED PROFESSIONAL ENGINEER
JONATHON M. TURNER
No. 60214
EXP. 6/30/22
CIVIL
STATE OF CALIFORNIA

RECOMMENDED BY:

Project Manager

APPROVED BY:

Deputy Director of Public Works Agency

APPROVED BY:

5/19/22

Director of Public Works Agency

Construction bidding documents, including plans, specifications, addenda and any supplementary documents are only available on the Ventura County Public Works Agency Web Site.

NOTICE TO BIDDERS, SUBCONTRACTORS AND SUPPLIERS SOURCES OF INFORMATION

DURING BIDDING PERIOD

PROJECT DOCUMENTS, PLAN HOLDERS LIST, & OTHER INFORMATION IS AVAILABLE ON THE INTERNET AT THE BONFIRE WEBSITE AT:

https://ventura.bonfirehub.com/portal/?tab=openOpportunities#department=Public%20Works%20Agency

All questions concerning the plans, specifications, requirements, terms, schedule, addenda, and any other matters related to the solicitations shall be submitted using the Bonfire web site using the "Opportunity Q&A" tab.

Submit any questions early in the bidding period as an addendum may be required.

All addenda will be issued using the Bonfire web site.

Please do not call other staff members or consultant.

Note that our consultants are directed to refer all calls to the Project Managers.

AFTER BID OPENING

BID RESULTS are available on https://www.vcpublicworks.org/es/bidsandsubs/,

AFTER AWARD OF CONTRACT

ALL QUESTIONS concerning project AFTER AWARD should be directed to the Project Manager named in the Notice of Award

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Any other information can be requested at (805) 654-2039

COUNTY OF VENTURA

VCMC COLSTON BUILDING DEMOLITION
SPECIFICATION NO.: CP22-02 PROJECT NO: P6T20011

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COUNTY OF VENTURA
NOTICE INVITING FORMAL BIDS

Bids will be received, electronically, until **2:00 p.m**. on **June 22, 2022**, for **VCMC Colston Building Demolition**, Specification No. CP22-02, which consists of "demolishing and removing the existing one-story structure in its entirety, including existing foundation, concrete walkways, all existing utility lines from the building, landscaping, trees, border wall and fences etc."

Bids must be submitted on-line through Bonfire at:

https://ventura.bonfirehub.com/portal/?tab=openOpportunities#department=Public%20Works%20Agency

After the deadline for receiving bids, the bids will be opened and the results made public.

The estimated cost of construction is $ **480,000.00.**

All bidding documents, including plans, specifications, addenda, and any supplementary documents are available on the Bonfire website shown above.

A list of Plan Holders is available on the Bonfire website shown above.

An abstract of bids received will be available at https://www.vcpublicworks.org/es/bidsandsubs/

When projects are awarded, the award notification to the State will be posted at https://www.vcpublicworks.org/es/awardedcontracts/

Bids must be submitted electronically, using the forms provided, on the Bonfire Website.

Subcontractor list must include a valid Contractor's License Number. Contractor and any subcontractors must be registered with the Department of Industrial Relations prior to bid time.

Each bid must be accompanied by a bid guarantee in the amount of not less than 10% of the amount bid, **PAYABLE TO THE COUNTY OF VENTURA** and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents, if award is made. The bid guarantee shall be in one of the following forms: a bid bond written by an admitted surety insurer on the form included with the Proposal form, a cashier's check drawn by a national bank, a check certified by a national bank or cash. Bid bonds must be submitted in hard copy with the original signatures of the principal and surety. Copies of the completed bond will not be accepted.

Bidders must have a Class **A** California Contractors license. Upon award, the Contractor will be required to furnish a Performance Bond and a Payment Bond, each in the amount of 100% of the contract price.

In accordance with Section 22300 of the Public Contract Code, securities may be substituted for funds withheld.

Bidders, contractors, and other interested parties can obtain wage rates pertaining to Ventura County projects at the link provided below.

California general prevailing wage rates for construction can be obtained from the following Web site: http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm.

The awarded contractor must post copies of the prevailing wage determinations at each job site.

PROJECT INFORMATION

FOR

VCMC COLSTON BUILDING DEMOLITION

LOCATED IN
VENTURA COUNTY, CALIFORNIA

MAKE BID GUARANTEE TO **COUNTY OF VENTURA**
USE FORM PROVIDED (SEE PARAGRAPH 9, INSTRUCTION TO BIDDERS).

SPECIFICATION NO. **CP22-02** INCLUDING **8** SHEETS OF PLANS

BIDS WILL BE RECEIVED ELECTRONICALLY UNTIL **JUNE 22,2022** AT **2:00 P.M.**

AGENCY IS ALLOWED **60** DAYS TO AWARD A CONTRACT (SEE SECTION 2-1.1).
THE STARTING DATE OF CONTRACT WILL BE **28** CALENDAR DAYS AFTER AWARD OF CONTRACT (SEE SECTION 6-7.4).

COMPLETION TIME IS **60** WORKING DAYS (SEE SECTION 6-7).

LIQUIDATED DAMAGES ARE **$ 1,800.00** PER CALENDAR DAY (SEE SECTION 6-9).

CONTRACTOR'S LICENSE CLASSIFICATION REQUIRED IS **CLASS A**

LIABILITY INSURANCE CLASS REQUIRED PER SECTION 7-4 IS **L-B**

FEDERAL-AID CONTRACT PROVISIONS ARE **NOT** INCLUDED IN THESE SPECIFICATIONS.

NON-MANDATORY PREBID MEETING: 10:00 AM on 06/07/2022 at 375 Hillmont Ave Ventura CA 93003. (Section 01 00 01-1.02)

INSTRUCTION TO BIDDERS

1. LICENSING OF BIDDER. Before submitting bids, bidders shall be licensed in accordance with the provisions of Sections 7000 through 7145 of the Business and Professions Code of the State of California in the classification required for the work bid on. The bidder's license number, classification, and expiration date shall be inserted on Signature Sheet. The bidder's name shall correspond in all respects with the name shown on the license. License numbers and names are checked with the State.

2. **SITE INSPECTION**. Personally visit the worksite before submitting your bid to ascertain the existence of any surface or subsurface conditions affecting the cost of the work.

3. **INTERPRETATION AND QUESTIONS**. Carefully review the plans and specifications for any errors, omissions, or ambiguities. If you discover any or have specific questions, notify the Agency far enough in advance of the bid opening to allow time for the issuance of appropriate written addenda, if necessary. All questions concerning the plans, specifications, requirements, terms, schedule, addenda, and any other matters related to the solicitation shall be submitted through the Bonfire website using the “Opportunity Q&A” tab.

Written addenda shall be the sole means for modifying the plans and/or specifications prior to the bid opening. The Agency shall not be bound by oral communications purportedly modifying or interpreting the plans and/or specifications regardless of when or by whom such oral communications are made and you should not rely upon such oral communications in preparing your bid. Addenda will be posted on the Bonfire web site.

4. **BID ITEMS**. State in figures the unit prices, lump sum prices and extensions as indicated which shall be the prices for which you propose to supply all materials and services and perform all work required by the plans and specifications. All items described are to be construed as complete and in place. Include in the bid amount for items listed in the Bid Table the cost of performing all work shown on the plans or required by the specifications for which a specific bid item is not provided. Bid on all items listed under Schedule of Work and Prices unless otherwise indicated in the Bid Table.

5. **SIGNING OF BID**. Fill in all indicated blanks on the various forms provided. Bids will only be accepted if submitted electronically using the Bonfire website. Bids signed by an agent other than an owner, partner or corporate officer shal be accompanied by a power-of-attorney.

6. **NON-COLLUSION AFFIDAVIT**. The non-collusion affidavit required by Public Contract Code 7106 is included as a required document on the Bonfire website.

7. **BID FORM NOT TO BE ALTERED**. Do not change the wording of the Bid documents. Any additions, deletions, conditions, limitations or provisions by the bidder will render the Bid irregular and may cause its rejection.

8. **CORRECTING BID**. Corrections or adjustments to bids must be done using the Bonfire website and must be completed prior to the Bid Closure date and time.

9. **BID GUARANTEE**. A Bid Guarantee in the amount of not less than 10% of the amount bid and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents if award is made to him must be submitted. The bid guarantee shall be in one of the following forms: A bid bond written by an admitted surety insurer on the form provided, a cashier's check drawn by a national bank, a check certified by a national bank or cash.

Original hard copies of the Bid Guarantee must be submitted and received by the County prior to the Time of Bid Closure. Bid Guarantee shall be mailed or delivered to:

Public Works Agency, County of Ventura
County Surveyor's Public Counter - 3rd Floor
Hall of Administration
800 South Victoria Ave.
Ventura, California 93009-1670.

For proper handling, mark the envelope as “BID GUARANTEE – SEALED BID” and show the specification number, project title, and the Bidder’s name and address.

The bid bond must have the original wet signatures of the principal and surety.

Note: Performance and Payment Bonds are required from the bidder to whom a contract is awarded. See specifications Subsection 2-4 for contract bond requirements including limitations on the sureties that may issue the bonds.

10. **SUBMITTING BID**. Submit your bid using the Bonfire website at:

www.ventura.bonfirehub.com

Only bids submitted via the Bonfire website will be considered. All documentation listed as required on that website must be completed and submitted.

11. **TIME OF BID CLOSURE**. The time and date of the Bid closure is indicated on the Bonfire website solicitation as “Close Date”. No bids will be accepted after that time.

12. **REVISION OR WITHDRAWAL OF BID**. Bids submitted using the Bonfire website can only be revised or withdrawn using the website. Once submitted, a bid that requires revisions or withdrawal must be accessed via the “Completed” tab under the “Your Submissions” section and action taken to revise or “unsubmit” (withdraw).

13. **ERRORS**. Bidder will not be released on account of errors. Bids submitted using the Bonfire website will be considered final. Bidders shall be careful to ensure all information that is submitted is complete and accurate.

14. **SUBCONTRACTOR LICENSE NUMBERS.** License numbers for subcontractors must be provided at the time the bid is received using the forms provided.

15. **PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM.** No contractor or subcontractor may be listed on a bid for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5

18. **LABOR COMPLIANCE MONITORING.** This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Prime Contractor shall post job site notices prescribed by regulation.

(See Chapter 8, California Code Regulation section 16451(d) for notice that previously was required for projects monitored by the Compliance Monitoring Unit.)

NONCOLLUSION DECLARATION

NONCOLLUSION DECLARATION

The undersigned declares:

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

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

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

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

Date

City State

Signature of Officer: _____

Printed Name of Officer:_____

LIST OF SUBCONTRACTORS

CONTRACTOR NAME:_____

Listing shall comply with the provisions of California Public Contract Code, Section 4104.

Name of Subcontractor	Contractor's License Number	Contractor's DIR Registration Number	Business Address	Items of Work

If more space is needed, add additional pages.

Public Contract Code Section 4104 provides that bidders must list:

(a)(1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars ($10,000), whichever is greater.

(b) The portion of the work that will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

BID TABLE

Schedule of work and prices for: **VCMC Colston Building Demolition**

Item No.	**Units**	Approx Quantity	Item Description	Payment Reference	Unit-Prices (In Figures)	Item Total (In Figures)
1	LS	1	All Work Completed Per Plans and Specifications	9-2		
			Total Amount Bid			

Bid Table is shown here for informational purposes.

Bid Table shall be filled out by Bidders using the Bonfire website. Bidders will access the Schedule of Work and Prices on the Bonfire website and input their Unit Prices.

Spec. No.**CP22-02**

BID BOND

Enter }
Name & }
Address }
of Bonding }
Company }

KNOW ALL MEN BY THESE PRESENTS: That we _____

_____, Principal,

and_____

_____, Surety, are held and firmly bound unto

COUNTY OF VENTURA Obligee,

in the sum of Ten Percent of the total amount of the Bid for the payment of which we bind ourselves, our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has submitted or is about to submit a bid or proposal to Obligee on a contract for

VCMC COLSTON BUILDING DEMOLITION

NOW, THEREFORE, if that contract be awarded to principal and principal shall, within such time as specified, duly execute the contract in the prescribed form and deliver the same to obligee with all required bonds/performance securities, certificates of insurance and such other items as required in the bidding or contract documents then this obligation shall be null and void; otherwise to remain in full force and effect, and if the contract is awarded to principal and principal fails, within the time specified, to duly execute the contract in the prescribed form and deliver the same to obligee with all said required items, then surety shall pay obligee the full sum of this bond.

Surety, for value received, hereby agrees that no extension of time, change, alteration, modification, or addition to the bidding or contract documents, or of the work required thereunder, shall release or exonerate surety on this bond or in any way affect the obligation of this bond; and surety does hereby waive notice of same.

Signed, sealed and dated

_____
(Principal)

by_____(Seal)

_____
(Surety)

by_____
Attorney-in-Fact

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH CORRESPONDENCE CONCERNING THIS BOND SHOULD BE DIRECTED.

Telephone No._____

Form PW-B-1

SIGNATURE SHEET

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone Number: (_____)_____-_____

Email Address: _____

I make this proposal and certify or declare under penalty of perjury under the laws of the State of California that:

- The statements and attestations made and associated with this Proposal, and below my signature, are true and correct.
- The bidder has read the Bid documents and has abided by and agrees to the conditions herein and has carefully examined the project plans and read the specifications and does hereby propose to furnish all materials and do all the work required to complete the work in accordance with the plans and specifications for the unit prices or lump sums named in the Bid Table.
- The bidder, as Principal, acknowledges himself as being bound by the attached bond or other acceptable bid guarantee.

Dated: _____ At: _____
(City and State)

Signature: _____

Printed Name: _____

Position: _____
(Sole Owner, Partner, President, etc.)

Company Name: _____ Type of Organization: _____
(Individual, Partnership, Corp.)

License No.:_____ License Classification: _____

License Expiration Date: _____

PREVAILING RATES OF WAGES

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

PREVAILING RATES OF WAGES

As provided in Subsection 7-2.2 of these specifications, and in accordance with Section 1770 *(Amended by Stats. 2017, Ch. 28, Sec. 17. (SB 96) Effective June 27, 2017),* et. seq. of the California Labor Code, determinations of the generally prevailing wages for various classes of workers in Ventura County have been made by the California Director of Industrial Relations as required by the California Labor Code.

As required by California Labor Code Section 1777.5, properly indentured apprentices shall be employed on the work in the minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification. Travel and subsistence shall be paid in accordance with California Labor Code Section 1773.8.
The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

The determinations made by the State are available on the Internet at
http://www.dir.ca.gov/DLSR/PWD/Index.htm
and are on file in the office of the Public Works Agency
The rate fixed for each craft, classification, or type of work shall be not less than the prevailing rate paid in the craft, classification, or type of work.

The Contractor shall post a copy of the wage rates at each jobsite at a location readily available to the workers.

EXCERPTS FROM THE CALIFORNIA LABOR CODE

Excerpts from the
California Labor Code

These excerpts from the Labor Code include the sections listed in specification Section 7.2.2.2 that are required by Labor Code 1775(b)(1) to be included in all subcontracts. These excerpts also include sections recommended by the CA Department of Industrial Relations that contain information on the contractor registration requirements. These sections are furnished for the convenience of the contractor and in no way limit the required compliance with all laws.

1725.5. A contractor shall be registered pursuant to this section to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code or engage in the performance of any public work contract that is subject to the requirements of this chapter. For the purposes of this section, "contractor" includes a subcontractor as defined by Section 1722.1.

(a) To qualify for registration under this section, a contractor shall do all of the following:
(1) (A) Register with the Department of Industrial Relations in the manner prescribed by the department and pay an initial nonrefundable application fee of four hundred dollars ($400) to qualify for registration under this section and an annual renewal fee on or before July 1 of each year thereafter. The annual renewal fee shall be in a uniform amount set by the Director of Industrial Relations, and the initial registration and renewal fees may be adjusted no more than annually by the director to support the costs specified in Section 1771.3.

(B) Beginning June 1, 2019, a contractor may register or renew according to this subdivision in annual increments up to three years from the date of registration. Contractors who wish to do so will be required to prepay the applicable nonrefundable application or renewal fees to qualify for the number of years for which they wish to preregister.

(2) Provide evidence, disclosures, or releases as are necessary to establish all of the following:

(A) Workers' compensation coverage that meets the requirements of Division 4 (commencing with Section 3200) and includes sufficient coverage for any worker whom the contractor employs to perform work that is subject to prevailing wage requirements other than a contractor who is separately registered under this section. Coverage may be evidenced by a current and valid certificate of workers' compensation insurance or certification of self-insurance required under Section 7125 of the Business and Professions Code.

(B) If applicable, the contractor is licensed in accordance with Chapter 9 (commencing with Section 7000) of the Business and Professions Code.

(C) The contractor does not have any delinquent liability to an employee or the state for any assessment of back wages or related damages, interest, fines, or penalties pursuant to any final judgment, order, or determination by a court or any federal, state, or local administrative agency, including a confirmed arbitration award. However, for purposes of this paragraph, the contractor shall not be disqualified for any judgment, order, or determination that is under appeal, provided that the contractor has secured the payment of any amount eventually found due through a bond or other appropriate means.

(D) The contractor is not currently debarred under Section 1777.1 or under any other federal or state law providing for the debarment of contractors from public works.

(E) The contractor has not bid on a public works contract, been listed in a bid proposal, or engaged in the performance of a contract for public works without being lawfully registered in accordance with this section, within the preceding 12 months or since the effective date of the requirements set forth in subdivision (e), whichever is earlier. If a contractor is found to be in violation of the requirements of this paragraph, the period of disqualification shall be waived if both of the following are true:

(i) The contractor has not previously been found to be in violation of the requirements of this paragraph within the preceding 12 months.

(ii) The contractor pays an additional nonrefundable penalty registration fee of two thousand dollars ($2,000).

(b) Fees received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(c) A contractor who fails to pay the renewal fee required under paragraph (1) of subdivision (a) on or before the expiration of any prior period of registration shall be prohibited from bidding on or engaging in the performance of any contract for public work until once again registered pursuant to this section. If the failure to pay the renewal fee was inadvertent, the contractor may renew its registration retroactively by paying an additional nonrefundable penalty renewal fee equal to the amount of the renewal fee within 90 days of the due date of the renewal fee.

(d) If, after a body awarding a contract accepts the contractor's bid or awards the contract, the work covered by the bid or contract is determined to be a public work to which Section 1771 applies, either as the result of a determination by the director pursuant to Section 1773.5 or a court decision, the requirements of this section shall not apply, subject to the following requirements:

(1) The body that awarded the contract failed, in the bid specification or in the contract documents, to identify as a public work that portion of the work that the determination or decision subsequently classifies as a public work.

(2) Within 20 days following service of notice on the awarding body of a determination by the Director of Industrial Relations pursuant to Section 1773.5 or a decision by a court that the contract was for public work as defined in this chapter, the contractor and any subcontractors are registered under this section or are replaced by a contractor or subcontractors who are registered under this section.

(3) The requirements of this section shall apply prospectively only to any subsequent bid, bid proposal, contract, or work performed after the awarding body is served with notice of the determination or decision referred to in paragraph (2).

(e) The requirements of this section shall apply to any bid proposal submitted on or after March 1, 2015, to any contract for public work, as defined in this chapter, executed on or after April 1, 2015, and to any work performed under a contract for public work on or after January 1, 2018, regardless of when the contract for public work was executed.

(f) This section does not apply to work performed on a public works project of twenty-five thousand dollars ($25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars ($15,000) or less when the project is for maintenance work.
(Amended by Stats. 2017, Ch. 28, Sec. 15. (SB 96) Effective June 27, 2017.)

1771. Except for public works projects of one thousand dollars ($1,000) or less, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in this chapter, shall be paid to all workers employed on public works.
This section is applicable only to work performed under contract, and is not applicable to work carried out by a public agency with its own forces. This section is applicable to contracts let for maintenance work.

(Amended by Stats. 1981, Ch. 449, Sec. 1.)

1771.1. (a) A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

(b) Notice of the requirement described in subdivision (a) shall be included in all bid invitations and public works contracts, and a bid shall not be accepted nor any contract or subcontract entered into without proof of the contractor or subcontractor's current registration to perform public work pursuant to Section 1725.5.

(c) An inadvertent error in listing a subcontractor who is not registered pursuant to Section 1725.5 in a bid proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that any of the following apply:

(1) The subcontractor is registered prior to the bid opening.

(2) Within 24 hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(3) The subcontractor is replaced by another registered subcontractor pursuant to Section 4107 of the Public Contract Code.

(d) Failure by a subcontractor to be registered to perform public work as required by subdivision

(a) shall be grounds under Section 4107 of the Public Contract Code for the contractor, with the consent of the awarding authority, to substitute a subcontractor who is registered to perform public work pursuant to Section 1725.5 in place of the unregistered subcontractor.

(e) The department shall maintain on its Internet Web site a list of contractors who are currently registered to perform public work pursuant to Section 1725.5.

(f) A contract entered into with any contractor or subcontractor in violation of subdivision (a) shall be subject to cancellation, provided that a contract for public work shall not be unlawful, void, or voidable solely due to the failure of the awarding body, contractor, or any subcontractor to comply with the requirements of Section 1725.5 or this section.

(g) If the Labor Commissioner or his or her designee determines that a contractor or subcontractor engaged in the performance of any public work contract without having been registered in accordance with this section, the contractor or subcontractor shall forfeit, as a civil penalty to the state, one hundred dollars ($100) for each day of work performed in violation of the registration requirement, not to exceed an aggregate penalty of eight thousand dollars ($8,000) in addition to any penalty registration fee assessed pursuant to clause (ii) of subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(h) (1) In addition to, or in lieu of, any other penalty or sanction authorized pursuant to this chapter, a higher tiered public works contractor or subcontractor who is found to have entered into a subcontract with an unregistered lower tier subcontractor to perform any public work in violation of the requirements of Section 1725.5 or this section shall be subject to forfeiture, as a civil penalty to the state, of one hundred dollars ($100) for each day the unregistered lower tier subcontractor performs work in violation of the registration requirement, not to exceed an aggregate penalty of ten thousand dollars ($10,000).

(2) The Labor Commissioner shall use the same standards specified in subparagraph (A) of paragraph (2) of subdivision (a) of Section 1775 when determining the severity of the violation and what penalty to assess, and may waive the penalty for a first time violation that was unintentional and did not hinder the Labor Commissioner's ability to monitor and enforce compliance with the requirements of this chapter.

(3) A higher tiered public works contractor or subcontractor shall not be liable for penalties assessed pursuant to paragraph (1) if the lower tier subcontractor's performance is in violation of the requirements of Section 1725.5 due to the revocation of a previously approved registration.

(4) A subcontractor shall not be liable for any penalties assessed against a higher tiered public works contractor or subcontractor pursuant to paragraph (1). A higher tiered public works contractor or subcontractor may not require a lower tiered subcontractor to indemnify or otherwise be liable for any penalties pursuant to paragraph (1).

(i) The Labor Commissioner or his or her designee shall issue a civil wage and penalty assessment, in accordance with the provisions of Section 1741, upon determination of penalties pursuant to subdivision (g) and subparagraph (B) of paragraph (1) of subdivision (h). Review of a civil wage and penalty assessment issued under this subdivision may be requested in accordance with the provisions of Section 1742. The regulations of the Director of Industrial Relations, which govern proceedings for review of civil wage and penalty assessments and the withholding of contract payments under Article 1 (commencing with Section 1720) and Article 2 (commencing with Section 1770), shall apply.

(j) (1) Where a contractor or subcontractor engages in the performance of any public work contract without having been registered in violation of the requirements of Section 1725.5 or this section, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered contractor or the unregistered subcontractor on all public works until the unregistered contractor or unregistered subcontractor is registered. The stop order shall not apply to work by registered contractors or subcontractors on the public work.

(2) A stop order may be personally served upon the contractor or subcontractor by either of the following methods:

(A) Manual delivery of the order to the contractor or subcontractor personally.

(B) Leaving signed copies of the order with the person who is apparently in charge at the site of the public work and by thereafter mailing copies of the order by first class mail, postage prepaid to the contractor or subcontractor at the address on file with either of the following:

(i) The Contractors' State License Board.

(ii) The Secretary of State.

(3) The stop order shall be effective immediately upon service and shall be subject to appeal by the party contracting with the unregistered contractor or subcontractor, by the unregistered contractor or subcontractor, or both. The appeal, hearing, and any further review of the hearing decision shall be governed by the procedures, time limits, and other requirements specified in subdivision (a) of Section 238.1.

(k) Failure of a contractor or subcontractor, owner, director, officer, or managing agent of the contractor or subcontractor to observe a stop order issued and served upon him or her pursuant to subdivision (j) is guilty of a misdemeanor punishable by imprisonment in county jail not exceeding 60 days or by a fine not exceeding ten thousand dollars ($10,000), or both.

(l) This section shall apply to any bid proposal submitted on or after March 1, 2015, and any contract for public work entered into on or after April 1, 2015. This section shall also apply to the performance of any public work, as defined in this chapter, on or after January 1, 2018, regardless of when the contract for public work was entered.

(m) Penalties received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(n) This section shall not apply to work performed on a public works project of twenty-five thousand dollars ($25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars ($15,000) or less when the project is for maintenance work.
(Amended by Stats. 2018, Ch. 455, Sec. 2. (SB 877) Effective September 17, 2018.)

1775. (a) (1) The contractor and any subcontractor under the contractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit not more than two hundred dollars ($200) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the director for the work or craft in which the worker is employed for any public work done under the contract by the contractor or, except as provided in subdivision (b), by any subcontractor under the contractor.

(2) (A) The amount of the penalty shall be determined by the Labor Commissioner based on consideration of both of the following:

(i) Whether the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) Whether the contractor or subcontractor has a prior record of failing to meet its prevailing wage obligations.

(B) (i) The penalty may not be less than forty dollars ($40) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, unless the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) The penalty may not be less than eighty dollars ($80) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the contractor or subcontractor has been assessed penalties within the previous three years for failing to meet its prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned.

(iii) The penalty may not be less than one hundred twenty dollars ($120) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the Labor Commissioner determines that the violation was willful, as defined in subdivision (c) of Section 1777.1.

(C) If the amount due under this section is collected from the contractor or subcontractor, any outstanding wage claim under Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 against that contractor or subcontractor shall be satisfied before applying that amount to the penalty imposed on that contractor or subcontractor pursuant to this section.

(D) The determination of the Labor Commissioner as to the amount of the penalty shall be reviewable only for abuse of discretion.

(E) The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the contractor or subcontractor, and the body awarding the contract shall cause to be inserted in the contract a stipulation that this section will be complied with.

(b) If a worker employed by a subcontractor on a public works project is not paid the general prevailing rate of per diem wages by the subcontractor, the prime contractor of the project is not liable for any penalties under subdivision (a) unless the prime contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime contractor fails to comply with all of the following requirements:

(1) The contract executed between the contractor and the subcontractor for the performance of work on the public works project shall include a copy of the provisions of this section and Sections **1771, 1776, 1777.5, 1813, and 1815.**

(2) The contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.

(3) Upon becoming aware of the failure of the subcontractor to pay his or her workers the specified prevailing rate of wages, the contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public works project.

(4) Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to Section 1813.

(c) The Division of Labor Standards Enforcement shall notify the contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers the general prevailing rate of per diem wages.
(Amended by Stats. 2011, Ch. 677, Sec. 1. (AB 551) Effective January 1, 2012.)

1776 (a) Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct.

(2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract and the Division of Labor Standards Enforcement of the Department of Industrial Relations.

(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public may not be given access to the records at the principal office of the contractor.

(C) Unless required to be furnished directly to the Labor Commissioner in accordance with paragraph (3) of subdivision (a) of Section 1771.4, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division. The payroll records may consist of printouts of payroll data that are maintained as computer records, if the printouts contain the same information as the forms provided by the division and the printouts are verified in the manner specified in subdivision (a).

(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.

(e) Except as provided in subdivision (f), any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a multiemployer Taft-Hartley trust fund (29 U.S.C. Sec. 186(c)(5)) that requests the records for the purposes of allocating contributions to participants shall be marked or obliterated only to prevent disclosure of an individual's full social security number, but shall provide the last four digits of the social security number. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Sec. 175a) shall be marked or obliterated only to prevent disclosure of an individual's social security number.

(f) (1) Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided nonredacted copies of certified payroll records. Any copies of records or certified payroll made available for inspection and furnished upon request to the public by an agency included in the Joint Enforcement Strike Force on the Underground Economy or to a law enforcement agency investigating a violation of law shall be marked or redacted to prevent disclosure of an individual's name, address, and social security number.

(2) An employer shall not be liable for damages in a civil action for any reasonable act or omission taken in good faith in compliance with this subdivision.

(g) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within five working days, provide a notice of a change of location and address.

(h) The contractor or subcontractor has 10 days in which to comply, subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit one hundred dollars ($100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

(i) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section.

(j) The director shall adopt rules consistent with the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) and the Information Practices Act of 1977 (Title 1.8 (commencing with Section 1798) of Part 4 of Division 3 of the Civil Code) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section.
(Amended by Stats. 2014, Ch. 28, Sec. 71. (SB 854) Effective June 20, 2014.)

1777.5. (a) (1) This chapter does not prevent the employment upon public works of properly registered apprentices who are active participants in an approved apprenticeship program.

(2) For purposes of this chapter, “apprenticeship program” means a program under the jurisdiction of the California Apprenticeship Council established pursuant to Section 3070.

(b) (1) Every apprentice employed upon public works shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

(2) Unless otherwise provided by a collective bargaining agreement, when a contractor requests the dispatch of an apprentice pursuant to this section to perform work on a public works project and requires the apprentice to fill out an application or undergo testing, training, an examination, or other preemployment process as a condition of employment, the apprentice shall be paid for the time spent on the required preemployment activity, including travel time to and from the required activity, if any, at the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered. Unless otherwise provided by a collective bargaining agreement, a contractor is not required to compensate an apprentice for the time spent on preemployment activities if the apprentice is required to take a preemployment drug or alcohol test and he or she fails to pass that test.

(c) Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3 are eligible to be employed at the apprentice wage rate on public works. The employment and training of each apprentice shall be in accordance with either of the following:

(1) The apprenticeship standards and apprentice agreements under which he or she is training.

(2) The rules and regulations of the California Apprenticeship Council.

(d) If the contractor to whom the contract is awarded by the state or any political subdivision, in performing any of the work under the contract, employs workers in any apprenticeable craft or trade, the contractor shall employ apprentices in at least the ratio set forth in this section and may apply to any apprenticeship program in the craft or trade that can provide apprentices to the site of the public work for a certificate approving the contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the contractor, shall arrange for the dispatch of apprentices to the contractor. A contractor covered by an apprenticeship program's standards shall not be required to submit any additional application in order to include additional public works contracts under that program. "Apprenticeable craft or trade," as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the California Apprenticeship Council. As used in this section, "contractor" includes any subcontractor under a contractor who performs any public works not excluded by subdivision (o).

(e) Before commencing work on a contract for public works, every contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the site of the public work. The information submitted shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the awarding body, if requested by the awarding body. Within 60 days after concluding work on the contract, each contractor and subcontractor shall submit to the awarding body, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the contract. The information under this subdivision shall be public. The apprenticeship programs shall retain this information for 12 months.

(f) The apprenticeship program supplying apprentices to the area of the site of the public work shall ensure equal employment and affirmative action in apprenticeship for women and minorities.

(g) The ratio of work performed by apprentices to journeymen employed in a particular craft or trade on the public work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates if the contractor agrees to be bound by those stndards. However, except as otherwise provided in this section, in no case shall the ratio be less than one hour of apprentice work for every five hours of journeyman work.

(h) This ratio of apprentice work to journeyman work shall apply during any day or portion of a day when any journeyman is employed at the jobsite and shall be computed on the basis of the hours worked during the day by journeymen so employed. Any work performed by a journeyman in excess of eight hours per day or 40 hours per week shall not be used to calculate the ratio. The contractor shall employ apprentices for the number of hours computed as above before the end of the contract or, in the case of a subcontractor, before the end of the subcontract. However, the contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the jobsite. When an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Administrator of Apprenticeship, upon application of an apprenticeship program, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification.

(i) A contractor covered by this section who has agreed to be covered by an apprenticeship program's standards upon the issuance of the approval certificate, or who has been previously approved for an apprenticeship program in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the applicable apprenticeship standards, but in no event less than the 1-to-5 ratio required by subdivision (g).

(j) Upon proper showing by a contractor that he or she employs apprentices in a particular craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by journeymen, the Administrator of Apprenticeship may grant a certificate exempting the contractor from the 1-to-5 hourly ratio, as set forth in this section for that craft or trade.

(k) An apprenticeship program has the discretion to grant to a participating contractor or contractor association a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the contractor from the 1-to-5 ratio set forth in this section when it finds that any one of the following conditions is met:

(1) Unemployment for the previous three-month period in the area exceeds an average of 15 percent.

(2) The number of apprentices in training in the area exceeds a ratio of 1 to 5.

(3) There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis.

(4) Assignment of an apprentice to any work performed under a public works contract would create a condition that would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large, or the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

(l) If an exemption is granted pursuant to subdivision (k) to an organization that represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member contractors shall not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already covered by the local apprenticeship standards.

(m) (1) A contractor to whom a contract is awarded, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the director determines is the prevailing amount of apprenticeship training contributions in the area of the public works site. A contractor may take as a credit for payments to the council any amounts paid by the contractor to an approved apprenticeship program that can supply apprentices to the site of the public works project. The contractor may add the amount of the contributions in computing his or her bid for the contract.

(2) (A) At the conclusion of the 2002–03 fiscal year, and each fiscal year thereafter, the California Apprenticeship Council shall distribute training contributions received by the council under this subdivision, less the expenses of the Department of Industrial Relations for administering this subdivision, by making grants to approved apprenticeship programs for the purpose of training apprentices. The grant funds shall be distributed as follows:

(i) If there is an approved multiemployer apprenticeship program serving the same craft or trade and geographic area for which the training contributions were made to the council, a grant to that program shall be made.

(ii) If there are two or more approved multiemployer apprenticeship programs serving the same craft or trade and county for which the training contributions were made to the council, the grant shall be divided among those programs based on the number of apprentices from that county registered in each program.

(iii) All training contributions not distributed under clauses (i) and (ii) shall be used to defray the future expenses of the Department of Industrial Relations for the administration and enforcement of apprenticeship standards and requirements under this code.

(B) An apprenticeship program shall only be eligible to receive grant funds pursuant to this subdivision if the apprenticeship program agrees, prior to the receipt of any grant funds, to keep adequate records that document the expenditure of grant funds and to make all records available to the Department of Industrial Relations so that the Department of Industrial Relations is able to verify that grant funds were used solely for training apprentices. For purposes of this subparagraph, adequate records include, but are not limited to, invoices, receipts, and canceled checks that account for the expenditure of grant funds. This subparagraph shall not be deemed to require an apprenticeship program to provide the Department of Industrial Relations with more documentation than is necessary to verify the appropriate expenditure of grant funds made pursuant to this subdivision.

(C) The Department of Industrial Relations shall verify that grants made pursuant to this subdivision are used solely to fund training apprentices. If an apprenticeship program is unable to demonstrate how grant funds are expended or if an apprenticeship program is found to be using grant funds for purposes other than training apprentices, then the apprenticeship program shall not be eligible to receive any future grant pursuant to this subdivision and the Department of Industrial Relations may initiate the process to rescind the registration of the apprenticeship program.

(3) All training contributions received pursuant to this subdivision shall be deposited in the Apprenticeship Training Contribution Fund, which is hereby created in the State Treasury. Upon appropriation by the Legislature, all moneys in the Apprenticeship Training Contribution Fund shall be used for the purpose of carrying out this subdivision and to pay the expenses of the Department of Industrial Relations.

(n) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

(o) This section does not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor when the contracts of general contractors or those specialty contractors involve less than thirty thousand dollars ($30,000).

(p) An awarding body that implements an approved labor compliance program in accordance with subdivision (b) of Section 1771.5 may, with the approval of the director, assist in the enforcement of this section under the terms and conditions prescribed by the director. *(Amended by Stats. 2018, Ch. 704, Sec. 17. (AB 235) Effective September 22, 2018.)*

1813. The contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars ($25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article. In awarding any contract for public work, the awarding body shall cause to be inserted in the contract a stipulation to this effect. The awarding body shall take cognizance of all violations of this article committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.
(Amended (as added by Stats. 1997, Ch. 757, Sec. 6) by Stats. 2002, Ch. 28, Sec. 3. Effective January 1, 2003.)

1815. Notwithstanding the provisions of Sections 1810 to 1814, inclusive, of this code, and notwithstanding any stipulation inserted in any contract pursuant to the requirements of said sections, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day at not less than $1^1/_2$ times the basic rate of pay.
(Amended by Stats. 1963, Ch. 964.)

EXCERPTS FROM PUBLIC CONTRACT CODE 9204

EXCERPTS FROM PUBLIC CONTRACT CODE 9204

EFFECTIVE DATE JANUARY 1, 2017

Please note section 9204 of the Public Contract Code, set forth in full below. Contractor must follow the contractual dispute resolution process specified in the Ventura County Standard Specifications, which is consistent with section 9204.

* * *

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3)(A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High–Speed Rail Authority.

(4) “Public works project” means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) “Subcontractor” means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d)(1)(A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45–day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2)(A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public

entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a

public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.

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Ventura County Standard Specifications

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
STANDARD SPECIFICATIONS
PART 1 - GENERAL PROVISIONS

SECTION 0 - SSPWC ADOPTION AND MODIFICATIONS

0-1 STANDARD SPECIFICATIONS

Except as hereinafter provided or as modified by the Special Provisions, the provisions of Parts 2 through 5 of the 2015 edition of the Standard Specifications for Public Works Construction (referred to as SSPWC), published by BNi Building News, Los Angeles, are part of these Standard Specifications.

0-2 DELETIONS

The following portions of SSPWC are hereby deleted: Part 1 and Sections 200-1.6.2, and 301-1.4.

0-3 NUMBERING OF SECTIONS

The numbering in these modifications is compatible with the numbering in SSPWC. References to whole sections of SSPWC and these modifications are preceded by the word "Section", references to parts of sections show numbers only, such as "211-5", except at the beginning of a sentence, the word "Section" precedes the number. Standard Special Provisions, if included, are numbered as Sections 901 through 999. The Special Provisions are numbered starting with Section 1000 or higher.

Cross-references contained in SSPWC to sections deleted by 0-2 hereof shall be references to the sections of like number contained herein.

0-4 ADDITIONS

The sections that follow, either, replace sections of like number in SSPWC which were deleted in 0-2 above, modify sections of SSPWC, or add material not in SSPWC.

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS

1-1 GENERAL Unless otherwise stated, the words directed, required, permitted, ordered, instructed, designated, considered necessary, prescribed, approved, acceptable, satisfactory, or words of like meaning, refer to actions, expressions, and prerogatives of the Engineer.

1-2 TERMS AND DEFINITIONS

Acceptance--The formal written acceptance by the Agency of the Work which has been completed in all respects in accordance with the Plans and Specifications and any Modifications thereof.

Addendum--Written or graphic instrument issued prior to the opening of Bids which clarifies, corrects or changes the bidding or Contract Documents. The term "Addendum" shall include bulletins and all other types of written notices issued to potential bidders prior to opening of Bids.

Agency--The legal entity for which the Work is being performed.

Agreement--See Contract.

Base--A layer of specified material of planned thickness placed immediately below the pavement or surfacing.

Bid--The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.

Bidder--Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

Board--The officer or body constituting the awarding authority of the Agency.

Bond--Bid, performance and payment bond or other instrument of security.

Cash Contract--A contract financed by means other than special assessments.

Certificate of Compliance—A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site conforms to the requirements of the Contract Documents.

Change Order--A written order to the Contractor signed by the Agency directing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract. A Change Order may or may not also be signed by the Contractor.

Code--The terms Government Code, Labor Code, etc. refer to codes of the State of California.

Consultant--A professional engineer, architect, landscape architect or other professional who designed the project or performed other services for the Agency on the project.

Contract--The written agreement between the Agency and the Contractor covering the Work.

Contract Documents--The Contract, Addenda, notice inviting bids, instruction to bidders; Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, permits from jurisdictional regulatory agencies, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Change Orders and Supplemental Agreements.

Contractor--The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the Agency to perform the Work. In the case of work being done under permit issued by the Agency, the Permittee shall be construed to be the Contractor. The term "prime contractor" shall mean Contractor.

Contract Price--The total amount of money for which the Contract is awarded.

Contract Unit Price--The amount shown in the Bid for a single unit of an item of work.

County Sealer--The Sealer of Weights and Measures of the county in which the Contract is let.

Days--Days shall mean consecutive calendar days unless otherwise specified.

Daily Extra Work Reports--Reports on Agency furnished forms as required by 3-3.

Disputed Work--Work in which Agency and Contractor are in disagreement.

Due Notice--A written notification, given in due time, of a proposed action where such notification is required by the Contract to be given a specified interval of time (usually 48 hours or two Working Days) prior to the commencement of the contemplated action. Notification may be from Engineer to Contractor or from Contractor to Engineer.

Electrolier--Street light assembly complete, including foundation, standard, luminaire arm, luminaire, etc.

Engineer--The Director of Public Works Agency acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

Field Directive--A written communication from the Engineer to the Contractor that does not make any Modification to the Contract Documents. It is used only to answer Contractor's questions and to provide decisions as specified in the Contract Documents.

Geotextile--Synthetic fiber used in civil engineering applications, serving the primary function of separation and filtration.

House Connection Sewer--A sewer, within a public street or right of way, proposed to connect any parcel, lot, or part of a lot with a main line sewer.

House Sewer--A sewer, wholly within private property, proposed to connect any building to a house connection sewer.

Luminaire--The lamp housing including the optical and socket assemblies (and ballast if so specified).

Major Bid Item--A single Contract item constituting 10% or more of the original Contract Price.

Mast Arm--The structural member or bracket, which, when mounted on a Standard, supports the luminaire.

Modification--Includes Change Orders and Supplemental Agreements. A Modification may only be issued after the effective date of the Contract.

Notice of Award--The written notice by the Agency to the successful Bidder stating that upon compliance by it with the required conditions, the Agency will execute the Contract.

Notice to Proceed--A written notice given by the Agency to the Contractor fixing the date on which the Contract time will start.

Owner--Same meaning as Agency.

Person--Any individual, firm, association, partnership, corporation, trust, joint venture, or other legal entity.

Plans--The drawings, profiles, cross sections, Standard Plans, working drawings, shop drawings, and supplemental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, or details of the Work.

Private Contract--Work subject to Agency inspection, control, and approval, involving private funds, not administered by the Agency.

Prompt--The briefest interval of time required for a considered reply, including time required for approval by a governing body.

Proposal--See Bid.

Reference Specifications--Those bulletins, standards, rules, methods of analysis or testing, codes, and specifications of other agencies, engineering societies, or industrial associations referred to in the Contract Documents. These refer to the latest edition, including amendments in effect and published at the time of advertising the project or issuing the permit, unless specifically referred to by edition, volume, or date.

Roadway--The portion of a street reserved for vehicular use.

Service Connection-All or any portion of the conduit cable or duct including meter, between a utility distribution line and an individual consumer

Service Lateral Connection-The interface of the House Connection Sewer with the host pipe.

Sewer--Any conduit intended for the reception and transfer of sewage and fluid industrial waste.

Shop Drawings—Drawings showing details of manufactured or assembled products proposed to be incorporated in the Work.

Special Provisions--Any provisions which supplement or modify the Standard Specifications.

Specifications--Standard Specifications, Reference Specifications, Standard Special Provisions, Special Provisions, and specifications in Change Orders or Supplemental Agreements between the Contractor and the Board.

Standard—The shaft or pole used to support street lighting luminaire, traffic signal heads, mast arms, etc.

Standard Plans--Details of standard structures, devices, or instructions referred to on the Plans or in the Specifications by title or number.

Standard Special Provisions-- Special Provisions prepared in standardized form numbered in the series 401 through 499.

1-2 DEFINITIONS (Continued)

Standard Specifications--Parts 1 through 6 of this document. See Section 0. References to whole sections will be preceded by the word "Section", references to parts of sections will show numbers only, such as "3-2", except at the beginning of a sentence, the word "Section" precedes the number.

State--The State of California.

State Standard Plans--Standard Plans prepared by State of California, Business and Transportation Agency, Department of Transportation.

Stipulated Unit Price--Unit prices established by Agency in the Contract Documents.

Storm Drain--Any conduit and appurtenances intended for the reception and transfer of storm water.

Street--Any road, highway, parkway, freeway, alley, walk or way.

Subbase--A layer of specified material of planned thickness between a base and the subgrade.

Subcontractor--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.

Subgrade--For roadways, that portion of the roadbed on which pavement, surfacing, base, subbase, or a layer of other material is placed. For structures, the soil prepared to support a structure.

Supervision--Supervision, where used to indicate supervision by the Engineer, shall mean the performance of obligations, and the exercise of rights, specifically imposed upon and granted to the Agency in becoming a party to the Contract. Except as specifically stated herein, supervision by the Agency shall not mean active and direct superintendence of details of the Work.

Supplemental Agreement--A written amendment of the Contract Documents signed by both parties.

Surety--See 2-4.

Utility--Tracks, overhead or underground wires, pipelines, conduits, ducts, or structures, sewers or storm drains owned, operated or maintained in or across a public right of way or private easement.

Work--That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.

Working Day--See 6-7.2 and 6.7.2.1.

Working Drawings—Drawings showing details not shown on the Plans which are required to designed by the Contractor

1-3 ABBREVIATIONS

1-3.1 General. The abbreviations herein, together with others in general use, are applicable to these Standard Specifications and to all other Contract Documents.

All abbreviations and symbols used on Plans for structural steel construction shall conform to those given by the "Manual of Steel Construction" published by the American Institute of Steel Construction, Inc.

1-3.2 Common Usage

Abbreviation	Word or Words	Abbreviation	Word or Words
Aban	Abandon	l	Liters
Aband	Abandoned	Lab	Laboratory
ABS	Acrylonitrile-butadiene-styrene	Lat	Lateral
AC	Asphalt Concrete	LD	Local depression
ACP	Asbestos cement pipe	LED	Light Emitting Diode
ADA	Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Sat. 1990,42 USC 12101-12213 (as amended))	LH	Lamp hole
Alt	Alternate	LL	Live load
AmerStd	American Standard	LOL	Layout line
APC	Air Placed Concrete	Long	Longitudinal
ARAM	Asphalt Rubber Aggregate Membrane	LP	Lamp post
ARHM	Asphalt Rubber Hot Mix	LPS	Low pressure sodium (Light)
AWG	American Wire Gage (non-ferrous wire)	LS	Lump sum
B/W	Back of wall	LTS	Lime treated soil
BC	Beginning of curve	m	Meters
BCR	Beginning of curb return	Maint	Maintenance
Bdry	Boundary	Max	Maximum
BF	Bottom of footing	MC	Medium curing
BM	Bench mark	MCR	Middle of curb return
BMPs	Best Management Practices	Meas	Measure
BVC	Beginning of vertical curve	MH	Manhole, maintenance hole
C&G	Curb & Gutter	Mil Spec	Military specification
C&G	Curb and gutter	Min	Minimum
CAB	Crushed aggregate base	Misc	Miscellaneous

Abbreviation	Word or Words
CALOSHA	California Occupational Safety and Health Administration
CALTRANS	California Department of Transportation
CAP	Corrugated aluminum pipe
CB	Catch Basin
Cb	Curb
CBP	Catch Basin Connection Pipe
CBR	California Bearing Ratio
C-C	Center to center
CCFRPM	Centrifugally Cast Fiberglass Reinforced Plastic Mortar
CCR	California Code of Regulations
CCTV	Closed Circuit TV
CF	Cubic foot
CF	Curb face
CFR	Code of Federal Regulations
CFS	Cubic feet per second
CHDPE	Corrugated High Density Polyethylene
CIP	Cast iron pipe
CIPP	Cast-in-place pipe
CIPPC	Cast-in-place Concrete Pipe
CL	Clearance, center line
CLF	Chain link fence
CLSM	Controlled Low Strength Material
CMB	Crushed miscellaneous base
CMC	Cement mortar-coated
CML	Cement mortar-lined
cms	Cubic meters per second
CO	Cleanout (Sewer)
Col	Column
Conc	Concrete
Conn	Connection
Const	Construct, Construction
Coord	Coordinate
CQS	Cationic Quick-Setting
CRM	Crumb Rubber Modifier
CRS	Cationic Rapid-Setting
CSEP	Confined Space Entry Plan
CSP	Corrugated steel pipe
CSPA	Corrugated steel pipe arch
CSS	Cationic Slow-Setting
CT	California Test
CTB	Cement treated base
CV	Check valve
CY	Cubic yard
D	Depth, Load of pipe
db	Decibels
Dbl	Double
DF	Douglas Fir
Dia	Diameter
DIP	Ductile iron pipe
DL	Dead load
DT	Drain tile
Dwg	Drawing
Dwy Appr	Driveway approach
Dwy	Driveway
Ea	Each
EC	End of curve
ECR	End of curb return
EF	Each face
EG	Edge of gutter
EGL	Energy grade line
El	Elevation
ELC	Electrolier lighting conduit
ELT	Extra long ton of slurry
Eng	Engineer, Engineering
EP	Edge of pavement
Esmt	Easement
ETB	Emulsion treated base

Abbreviation	Word or Words
Mon	Monument
MSDS	Material Safety Data Sheet
Mult	Multiple
MUTCD	Manual on Uniform Traffic Control Devices
MVL	Mercury vapor light
N/A	No applicable
NRCP	Nonreinforced concrete pipe
Obs	Obsolete
oc	On center
OD	Outside diameter
OE	Outer edge
Opp	Opposite
Orig	Original
PAV	Pressure Aging Vessel
PB	Pull box
PC	Point of curvature
PCC	Point of compound curvature
PCC	Portland cement concrete
PCVC	Point of compound vertical curve
PE	Polyethylene
PG	Performance Graded
PI	Point of intersection
PL	Property line
PLI	Pounds per linear inch
PMB	Processed miscellaneous base
POC	Point on curve
POT	Point on tangent
PP	Power pole
PRC	Point of reverse curve
PRCB	Precast Reinforced Concrete Box
PRVC	Point of reverse vertical curve
PSI	Pounds per square inch
PT	Point of tangency
PVC	Polyvinyl chloride
Pvmt	Pavement
Pvt R/W	Private right of way
Q	Rate of flow in cms (CFS)
Quad	Quadrangle, Quadrant
R	Radius or Resistance value
R&O	Rock and Oil
R/W	Right of way
RA	Reclaimed Asphalt or Recycling agent
RAC	Recycled asphalt concrete
RAP	Reclaimed asphalt pavement
RBAC	Rubberized asphalt concrete
RC	Reinforced concrete or Rapid Curing
RCB	Reinforced concrete box
RCE	Registered civil engineer
RCP	Reinforced concrete pipe
RCV	Remote control valve
Ref	Reference
Reinf	Reinforced or reinforcement
Res	Reservoir
RGE	Registered geotechnical engineer
RPPCC	Reclaimed Plastic Portland Cement Concrete
RR	Railroad
RSE	Registered structural engineer
RTE	Registered traffic engineer
RTFO	Rolling Thin Film Oven
RW	Reclaimed Water
S	Slope
S/W	Sidewalk
SC	Slow curing
SCCP	Steel cylinder concrete pipe
SCNs	Supplementary Cementitious Materials
SD	Storm drain
SDR	Standard dimension ratio

Abbreviation	Word or Words
EVC	End of vertical curve
Exc	Excavation
Exist or Ex	Existing
Exp Jt	Expansion joint
F & C	Frame and cover
F & I	Furnish and install
F/W	Face of wall
Fab	Fabricate
FAS	Flashing arrow sign
FD	Floor drain
Fdn	Foundation
Fed Spec	Federal Specification
FG	Finished grade
FL	Flow line
FS	Finished surface
ft - lb	foot – pound
Ftg	footing
FW	Face of wall
Ga	Gauge
Galv	Galvanized
GG	Gap graded
GIP	Galvanized iron pipe
GL	Ground line or grade line
GM	Gas meter
GP	Guy pole
Gr	Grade
Grtg	Grating
GSP	Galvanized steel pipe
H	High or height
HB	Hose bib
HC	House connection
HDPE	High density Polyethylene
HDWL	Headwall
HGL	Hydraulic grade line
Hor, Horiz	Horizontal
Hp	Horsepower
HPG	High pressure gas
HPS	High pressure sodium (Light)
HRWRA	High Range Water Reducing Admixture
Hyd, Hydr	Hydraulic
ID	Inside diameter
Incl	Include, Including
Insp	Inspection
Inv	Invert
IP	Iron pipe
J	Joules
JC	Junction chamber
Jct	Junction
JS	Junction structure
Jt	Joint
kg	Kilograms
kPa	KiloPascals
L	Length

Abbreviation	Word or Words
SE	Sand Equivalent
Sec	Section
SF	Square foot
SG	Specific gravity
SI	International System of Units (Metric)
SLC	Service Lateral Connection
Spec	Specifications
SR	Standard ratio
SS	Sanitary sewer
SSB	Select sub-base
SSP	Structural steel plate pipe
SSPA	Structural steel plate pipe arch
St Hwy	State highway
Sta	Station
Std	Standard
Str Gr	Straight grade
Str	Straight
Struc	Structural/Structure
SW	Sidewalk
SWD	Sidewalk drain
SWPPP	Storm Water Pollution Prevention Plan
SY	Square Yard
T/W	Top of wall
Tan	Tangent
TC	Top of curb
TCP	Traffic control plan
Tel	Telephone
TF	Top of footing
Topo	Topography
Tr	Tract
Trans	Transition
TRMAC	Tire rubber modified asphalt concrete
TS	Traffic signal or transition structure
TSC	Traffic signal conduit
TSS	Traffic signal standard
TTC	Temporary traffic control
TW	Top of wall
Typ	Typical
U.S.	United States
U.S.C.	United States Code
USA	Underground Service Alert
Var	Varies, Variable
VB	Valve box
VC	Vertical curve
VCP	Vitrified clay pipe
Vert	Vertical
Vol	Volume
VTCSH	Vehicle Traffic Controls Signal Heads
W	Width or Wider
WATCH	Work Area Traffic Control Handbook
WI	Wrought iron
WM	Water meter
WPJ	Weakened plane joint
WTAT	Wet Track Abrasion Test
X Conn	Cross connection
x (as in 2x4)	by
X-Sec	Cross section

1-3.3 Institutions.

Abbreviation	Word or Words
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	Associated General Contractors of America
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASHRAE	American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preserver's Association
AWS	American Welding Society
AWWA	American Water Works Association
CBSC	California Building Standards Commission
CRSI	Concrete Reinforcing Steel Institute
EIA	Electronic Industries Association
EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FCC	Federal Communications Commission
IAPMO	International Association of Plumbing and Mechanical Officials
ICC	International Code Council
IEEE	Institute of Electrical and Electronics Engineers
IMSA	International Municipal Signal Association
ITE	Institute of Traffic Engineers
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration (Department of Commerce)
RUS	Rural Utility Service
UL	Underwriters' Laboratories, Inc.
USGS	United State Geological Survey
WFCA	Western Fire Chiefs Association

1-3.4 Building Codes. The Ventura County Building Code (VCBC) and Ventura County Fire Code (VCFC) are applicable to the Work. VCBC and VCFC adopt by reference a number of uniform and national codes. Where such codes are referenced directly in the Specifications, such references shall be to the VCBC or VCFC which adopt and modify certain provisions in the referenced codes.

Abbreviation	Code	Publisher
CBC	California Building Code	CBSC
DBC	Uniform Code for Abatement of Dangerous Building	ICC
UBC	Uniform Building Code	ICC
UFC	Uniform Fire Code	ICC and WFCA
UHC	Uniform Housing Code	ICC
UMC	Uniform Mechanical Code	IAPMO
UPC	Uniform Plumbing Code	IAPMO
NEC	National Electrical Code	NFPA

1-3.5 Reference Documents.

Abbreviation	Document
HDM	Highway Design Manual, State of California, Department of Transportation, Latest Edition
MUTCD	Manual on Uniform Traffic Control Devices
SSP	Standard Plans, State of California, Department of Transportation, latest edition
SPPWC	Standard Plans for Public Works Construction, Latest edition, published by BNi Building News, Los Angeles,
SSPWC	Standard Specifications for Public Works Construction, (See Section 0-1)
SSS	Standard Specifications, State of California, Department of Transportation, latest edition
VCSS	Ventura County Standard Specifications (Division 1, Sections 0 through 10, of which this section is a part)

1-4 UNITS OF MEASURE

1-4.1 General. The International System of Units, also referred to as SI or the metric system, is the principal measurement system in these Specifications and shall be used for construction, unless otherwise stated in the Contract Documents. U. S. Standard Measure, also called U. S. Customary System, are included in parenthesis. SI units and U. S. Standard Measure in parenthesis may or may not be exactly equivalent. If U. S. Standard Measures are specified for use in the Contract Documents, then all values used for construction shall be U. S. Standard Measures shown in parentheses. However, certain material Specifications and test requirements contained herein use SI units specifically and conversions to U. S. Measures have not been included in these circumstances. When U. S. Standard Measures are not included in parentheses, the SI units shall control.

Reference is also made to ASTM E 380 for definitions of various units of the SI system and a more extensive set of conversion factors.

1-4.1.1 Units for Work. Where U. S. Standard Measure units are shown on the Plans or are specified, U. S. Standard Measure shall be used for the Work.

1-4.2 Units of Measure, Equivalents and Abbreviations

One U.S. Customary Unit	(abbreviation)	Is Equal To	#	SI Unit
mil (=0.001 in)		25.4	micrometers	(µm)
inch	(in)	25.4	millimeter	(mm)
inch	(in)	2.54	centimeter	(cm)
foot	(ft)	0.3048	meter	(m)
yard	(yd)	0.9144	meter	(m)
mile		1.6093	kilometer	(km)
square foot	(ft^2)	0.0929	square meter	(m^2)
square yard	(yd^2)	0.8361	square meter	(m^2)
cubic foot	(ft^3)	0.0283	cubic meter	(m^3)
cubic yard	(yd^3)	0.7646	cubic meter	(m^3)
acre (=43,560 ft^2)		0.4047	hectare (1ha=10,000m^2)	(ha)
gallon	(gal)	3.7854	Liter	(L)
fluid ounce	(fl. oz.)	29.5735	milliliter	(mL)
pound mass (avoirdupois)	(lbs)	0.4536	kilogram	(kg)
ounce mass	(oz)	0.02835	kilogram	(kg)
ounce mass	(oz)	28.35	grams	(g)
Ton (=2000 lb avoirdupois)		0.9072	Tonne (1 Tonne = 1000 kg)	
Poise		0.10	Pascal-second	(Pa-s)
centistoke	(cs)	1.00	square millimeter/sec.	(mm^2/s)
pound force	(lbf)	4.4482	Newton	(N)
pound per square inch	(psi)	6.8948	Kilopascal	(kPa)
pound force per foot	(lbf/ft)	14.594	Newton per meter	(N/M)
foot-pound force	(ft-lbf)	1.3558	Joules	(J)
foot-pound force per second	([ft-lbf]/s)	1.3558	Watt	(W)
part per million	(ppm)	1.00	milligram/liter	(mg/L)
Degree Fahrenheit	(°F)	0.5555	Degree Celsius	(°C)

Temperature: Celsius to Fahrenheit	Temperature: Fahrenheit to Celsius
Temperature °F = (1.8 x °C) + 32	Temperature °C = (°F - 32) / 1.8

SI Units Used in Both Systems		
Ampere (A)	second (s)	Candela (cd)
Volt (V)	decibel (db)	Lumen (lm)

Common Metric Prefixes					
kilo (k)	10^3	milli (m)	10^{-3}	nano (n)	10^{-9}
centi (c)	10^{-2}	micro (µ)	10^{-6}	pico (p)	10^{-12}

1-5 SYMBOLS

°	Degree	PL	Property line	%	Percent
'	Feet or minutes	SL	Survey line or station line	#	Number
"	Inches or seconds	CL	Center line	/	per or of (between words)
Δ	Delta, the central angle or angle between tangents			∠	Angle

SECTION 2 - SCOPE AND CONTROL OF WORK

2-1 AWARD AND EXECUTION OF CONTRACT

2-1.1 Award of Contract. The right is reserved to waive minor irregularities in the proposals and to reject any or all proposals. The award of the Contract, if it be awarded, will be to the lowest responsive, responsible Bidder, determined as provided on the Proposal Form, whose Proposal complies with all the requirements prescribed. Such award, if made, will be made within the number of Days stated in the Proposal form. If the lowest responsible Bidder refuses or fails to execute the Contract, the Agency may, within 45 additional Days, consider the next lowest Bidder to be the lowest responsive, responsible Bidder. The periods of time specified above within which the award of Contract may be made shall be subject to extension for such further period as may be agreed upon in writing by the Bidder concerned. If the Bidder's bid guarantee was in the form of a bid bond, the Bidder shall also submit a statement from the Surety that the bond has been extended for the same period.

Proposals not accompanied by a properly executed Noncollusion Affidavit required by Public Contract Code Section 7106 will be considered nonresponsive and will not be considered for award.

All bids will be compared on the basis of the quantities, amounts and unit prices, or lump sums, as shown on the Bid Proposal.

Before award, the Bidder may be required to furnish acceptable evidence of adequate capability, equipment and financial resources to adequately perform the Work. Bidders found not to be so qualified may have their bids rejected. If reasonable cause exists to believe collusion exists among Bidders, or that prices Bid are unbalanced between Bid items, any or all proposals may be rejected.

Award will not be made to a Bidder who is listed by the State Labor Commissioner as ineligible to bid, work on, or be awarded public works projects.

2-1.2 Notice of Award. Within one Day after award of Contract by the Board, the Bidder to whom Contract is awarded will be notified of award by email and telephone, or if no contact is made by telephone, then by mail. Within three business days after award of Contract, a Notice of Award will be sent, transmitting the Contract Documents to such Bidder for execution. If telephone contact is made, the Bidder may request that the Contract Documents be held in Agency's office to be picked up.

2-1.3 Execution of Contract Documents. On receipt of the Contract Documents, the Bidder shall promptly obtain the required insurance coverage, certificates of insurance, power-of-attorney and Contract bonds, execute the Contract, and transmit all required documents to the Agency.

2-1.4 Failure to Execute Documents. Should the Bidder fail to furnish Agency all required documents, properly executed, prior to the starting day of the Contract time computed as provided in 6-7.4 and stated in the Notice of Award, Agency may thereafter declare the Bidder to be in default and its Proposal guarantee forfeited.

2-1.5 Return of Proposal Guarantees. Within 10 Days after the award of the Contract, Agency will return the Proposal guarantees, other than Bidder's bonds, accompanying such of the proposals as are not to be further considered in making the award. The low and second Bidder's Proposal guarantee will be held until the Contract has been executed, after which all Proposal guarantees, except Bidders' bonds and any guarantees which have been forfeited, will be returned to the respective Bidders whose proposals they accompany.

2-2 ASSIGNMENT. No Contract or portion thereof may be assigned without consent of the Board except that the Contractor may assign money due or which will accrue to it under the Contract. If given written notice, such assignment will be recognized by the Board to the extent permitted by law, but any assignment of money shall be subject to all proper withholdings in favor of the Agency and to all deductions provided for in the Contract. All money withheld, whether assigned or not, shall be subject to being used by the Agency for completion of the Work, should the Contractor be in default.

2-3 SUBCONTRACTS.

2-3.1 General. Each Bidder shall comply with the Chapter of the Public Contract Code including Sections 4100 through 4113. The following excerpts or summaries of some of the requirements of that Chapter are included below for information.

The Bidder shall set forth in the Bid, as provided in 4104:

"(a) (1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars ($10,000), whichever is greater.

(2) An inadvertent error in listing the California contractor license number provided pursuant to paragraph (1) shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor."

If the Contractor fails to specify a Subcontractor, or specifies more than one Subcontractor for the same portion of the Work to be performed under the Contract (in excess of one-half of 1 percent of the Contractor's total bid), the Contractor shall be qualified to perform that portion itself, and shall perform that portion itself except as otherwise provided in the Code.

Except as provided in Section 4107, no prime contractor, whose Bid is accepted, shall substitute any person or Subcontractor in place of the Subcontractor listed in the original bid other than for causes and by procedures established in Section 4107.5 which provides procedures to correct a clerical error in the listing of a Subcontractor.

Section 4110 provides that a Contractor violating any of the provisions of the Chapter violates the Contract and the Board may exercise the option either to cancel the Contract or assess the Contractor a penalty in an amount of not more than 10 percent of the subcontract involved, after a public hearing.

2-3.1.1 Use of Debarred Subcontractors Prohibited. The Contractor is prohibited from performing work using a Subcontractor who is listed by the State Labor Commissioner as ineligible to work on public works projects.

2-3.2 Additional Responsibilities. The Contractor shall give personal attention to the fulfillment of the Contract and shall keep the Work under its control.

Except where the required Contractor's License Class is "B", the Contractor shall perform, with its own organization, Contract work amounting to at least 50 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or Proposal with an "[S]". Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

Before the work of any Subcontractor is started, the Contractor shall submit to the Engineer for approval a written statement showing the work to be subcontracted giving the name, contractor license number, registration with the Department of Industrial Relations, and business of each Subcontractor and description and value of each portion of work to be subcontracted.

2-3.3 Status of Subcontractors. Subcontractors shall be considered employees of the Contractor, and the Contractor shall be responsible for their work.

2-3.3.1 Subcontracts. The Contractor shall incorporate into all subcontracts, and the Subcontractor shall incorporate into all lower tier subcontracts, all of the Plans and Specifications which are part of the Contract between the Contractor and the Agency.

2-3.3.2 Contractor Responsible. The Contractor is responsible for properly performing and completing all Work required by the Contract whether or not it employs subcontractors for certain portions of the Work. It shall coordinate the sequence and timing of its efforts and that of its subcontractors to insure the proper and timely completion of the Work.

2-3.3.3 Specialty Contractors. Where a specialty Contractor's license is required by law or by the Specifications in order to perform certain portions of the Work, the Contractor may perform such portion with its own forces if it holds the proper license. Otherwise, it shall employ a properly licensed subcontractor to perform that portion of the Work. Such requirement to employ a subcontractor does not modify the other requirements of 2-3.

2-4 CONTRACT BONDS. Before execution of the Contract by the Agency, the Bidder shall file surety bonds with the Agency to be approved by the Board in the amounts and for the purposes noted below. Bonds issued by a Surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by the Agency. Bonds from all other sureties shall be accompanied by all of the documents enumerated in Code of Civil Procedure 995.660(a). The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized.

The Bidder shall provide two good and sufficient surety bonds. The "Payment Bond" (Material and Labor Bond) shall be for not less than 100 percent of the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The bond shall be maintained by the Contractor in full force and effect until the Work is accepted by the Agency, and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The "Performance Bond" shall be for 100 percent of the Contract Price to guaranty faithful performance of all Work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of the warranty period set forth in 6.8-2.

Should any bond become insufficient, the Contractor shall renew the bond within 10 Days after receiving notice from the Agency.

Should any Surety at any time be unsatisfactory to the Board, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the Board.

Changes in the Work, or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

2-4.1 Bond Forms. Bonds shall be on forms furnished by Agency.

2-5 PLANS AND SPECIFICATIONS

2-5.1 General. The Contractor shall keep at the work site a copy of the Plans and Specifications, to which the Engineer shall have access at all times.

The Plans, Specifications, and other Contract Documents shall govern the Work. The Contract Documents are intended to be complementary and cooperative. Anything specified in the Specifications and not shown on the Plans, or shown on the Plans and not specified in the Specifications, shall be as though shown or specified in both.

The Plans shall be supplemented by such working drawings and shop drawings as are necessary to adequately control the Work.

The Contractor shall ascertain the existence of any conditions affecting the cost of the Work through reasonable examination of the work site prior to submitting the Bid..

Existing improvements visible at the work site, for which no specific disposition is made on the Plans, but which interfere with the completion of the Work, shall be removed and disposed of by the Contractor.

The Contractor shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Engineer.

2-5.1.1 Specifications Captions. Captions accompanying specification parts, sections and paragraphs are for convenience of reference only and do not limit the content of such part, section or paragraph.

The division of the Plans into parts and the division of the Specifications into divisions and sections are for the ease of reference only and does not imply the division of work between trades or subcontractors.

2-5.2 Precedence of Contract Documents. If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The precedence shall be as follows:

1) Permits issued by jurisdictional regulatory agencies.
2) Change Orders and Supplemental Agreements; whichever occurs last.
3) Contract/Agreement.
4) Addenda.
5) Bid/Proposal.
6) Special Provisions.
7) Plans.
8) Standard Plans.
9) Standard Specifications.
10) Reference Specifications.

Detail drawings shall take precedence over general drawings.

2-5.3 Shop Drawings, Working Drawings, and Submittals.

2-5.3.1 General. Submittals shall be provided, at the Contractor's expense, as required in 2-5.3.2, 2-5.3.3 and 2-5.3.4, when required by the Plans or Special Provisions, or when requested by the Engineer.

Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed, before the required submittals have been reviewed and accepted by the Engineer. Neither review nor acceptance of submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

2-5.3.2 Working Drawings. Working drawings shall be of a size and scale to clearly show all necessary details.

Six copies and one reproducible shall be submitted. If no revisions are required, 3 of the copies will be returned to the Contractor. If revisions are required, the Engineer will return one copy along with the reproducible for resubmission. Upon acceptance, the Engineer will return 2 of the copies to the Contractor and retain the remaining copies and the reproducible.

Working drawings are required in the following subsections:

TABLE 2-5.3.2 (A)

Item	Section Number	Title	Subject
1	7-8.5.2	Sanitary Sewers	Sewage Bypass and Pumping
2	7.8.6.3	Water Pollution Control	Storm Water Pollution Prevention Plan
3	7-8.6.6	Water Pollution Control	Dewatering Plan
4	7-10.2.2	Work Area Traffic Control	Traffic Control Plan
5	7-10.4..2.2	Safety	Trench Shoring
6	207-8.4	Joints	Vitrified Clay Pipe
7	207-10.2.1	General	Fabricated Steel Pipe
8	300-3.2	Cofferdams	Structure Excavation & Backfill
9	303-1.6.1	General	Falsework
10	303-1.7.1	General	Placing Reinforcement
11	303-3.1	General	Prestressed Concrete Construction
12	304-1.1.1	Shop Drawings	Structural Steel
13	304-1.1.2	Falsework Plans	Structural Steel
14	304-2.1	General	Metal Hand Railings
15	306-2.1	General	Jacking Operations
16	306-3.1	General	Tunneling Operations
17	306-3.4	Tunnel Supports	Tunneling Operations
18	306-6	Remodeling Existing Sewer Facilities	Polyethylene Liner Installation
19	306-8	Microtunneling	Microtunneling Operations

Working drawings listed above as Items 4, 5, 8, 9, 11, 12, 13, 15 and 18 shall be prepared by a Civil or Structural Engineer registered by the State of California.

2-5.3.3 Shop Drawings. Shop drawings are drawings showing details of manufactured or assembled products proposed to be incorporated into the Work. Shop drawings required shall be as specified in the Special Provisions.

2-5.3.4 Supporting Information. Supporting information is information required by the Specifications for the purposes of administration of the Contract, analysis for verification of conformance with the Specifications, the operation and maintenance of a manufactured product or system to be constructed as part of the Work, and other information as may be required by the Engineer. Six copies of the supporting information shall be submitted to the Engineer prior to the start of the Work unless otherwise specified in the Special Provisions or directed by the Engineer. Supporting information for systems shall be bound together and include all manufactured items for the system. If resubmittal is not required, three copies will be returned to the Contractor. Supporting information shall consist of the following and is required unless otherwise specified in the Special Provisions:

1) List of Subcontractors per 2-3.2.
2) List of Materials per 4-1.4.
3) Certificates of Compliance per 4-1.5.
4) Construction Schedule per 6-1.
5) Spill Prevention and Emergency Response Plan per 7-8.5.3
6) Confined Space Entry Program per 7-10.4.5.1
7) Lean concrete base mix designs per 200-4
8) Concrete mix designs per 201-1.1.
9) Asphalt concrete mix designs per 203-6.1.
10) Pipeline layout diagrams per 207-2.1
11) Equipment and materials list per 307-1
12) Controller cabinet wiring diagrams per 307-17.2.2
13) Data, including, but not limited to, catalog sheets, manufacturer's brochures, technical bulletins, specifications, diagrams, product samples, and other information necessary to describe a system, product or item. This information is required for irrigation systems, street lighting systems, and traffic signals, and may also be required for any product, manufactured item, or system.

2-5.4 Record Drawings. The Contractor shall prepare and maintain a set of prints in the Engineer's Field Office on which the locations and description of all plumbing, mechanical, and electrical facilities, which were not detailed fully on the Plans, are marked in colored pencil. Such prints shall also indicate any authorized changes from the original Plans. Such prints shall be furnished to the Engineer before final Acceptance of the Work.

2-6 WORK TO BE DONE. The Contractor shall perform all work necessary to complete the Contract in a satisfactory manner. Unless otherwise provided, it shall furnish all materials, equipment, tools, labor and incidentals necessary to complete the Work.

All work under the Contract shall be performed in accordance with the highest standards prevailing in the trades unless otherwise specified on the Plans or in the Special Provisions. Unless otherwise specified, it is the intent that the Contractor will construct a complete facility ready for use.

2-6.1 Manufacturer's Recommendations. Where the manufacturer of any materials or equipment provides written recommendations or instructions for its use or method of installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except where the Contract Documents specifically require deviations.

2-6.2 Testing of Installed Components. Where the specifications provide that any component of the Work is to be tested, calibrated or adjusted during or after installation, such testing shall be performed by a qualified firm, approved by the Engineer. The firm performing the testing or calibration shall be employed by and paid for by the Contractor.

2-6.3 Training of Agency Personnel. Where the specifications provide for training of Agency personnel in the use or maintenance of any component of the Work, the Contractor shall arrange for and pay for competent personnel to perform the training. Contractor shall schedule the training with the Engineer.

2-7 SUBSURFACE DATA. All soil and test hole data, groundwater elevations, and soil analyses shown on the Plans or included in the Specifications apply only at the location of the test holes and to the depths shown. Soil test reports for test holes which have been drilled are available for inspection at the office of the Engineer. Additional subsurface exploration may be performed by Bidders or the Contractor at their own expense.

The indicated groundwater elevation is that existing at the date specified in the data. It is the Contractor's responsibility to determine and allow for the groundwater elevation on the date the Work is performed. A difference in groundwater elevation between what is shown in soil boring logs and what is actually encountered during construction will not be considered as a basis for Extra Work per 3-3.

Opinions, recommendations or conclusions contained in any soils report, soil boring logs, subsurface materials investigation, geological report or other similar studies, tests or reports, prepared for the Agency, are not a part of the Contract. Contractor shall be responsible for forming its own opinions and conclusions from the facts set forth in such reports.

2-8 RIGHTS-OF-WAY. Rights-of-way, easements or rights-of-entry for the Work will be provided by the Agency. Unless otherwise provided, the Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The Contractor shall indemnify and hold the Agency harmless from all claims for damages caused by such actions.

2-9 SURVEYING

2-9.1 Permanent Survey Markers. The Contractor shall notify the Engineer at least 7 Days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and bench marks. The Engineer, or the owner at its cost, shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer or the owner on Private Contracts. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 Days of finished paving unless otherwise specified.

2-9.2 Survey Service. The Engineer will set only the horizontal and vertical control survey points shown on the Plans. These will be set prior to the commencement of construction. The Contractor shall preserve these points as well as any other surveys established by the Engineer for use by the Contractor for the duration of their usefulness. If any survey points established by Engineer are lost or disturbed and need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor. The Contractor shall employ engineers or surveyors to perform adequate surveys and staking necessary to construct the Work to the lines, elevations and grades shown on the Plans and for the Engineer's use in checking such work. Copies of the field notes or diagrams used in setting stakes shall be promptly furnished to the Engineer.

2-9.2.1 Open Areas. Where dimensions are not given on the Plans for parking lots, landscaped areas or graded areas, distances shall be scaled. Unless otherwise indicated, straight grades and smooth vertical curves shall be set between indicated elevations. Finished surfaces shall be sloped to drain in order to eliminate ponding of water.

2-9.2.2 Utilities. Section 5-5.1 requires the Contractor's cooperation during the relocation of utilities, which may require the setting of lines and grades when needed by utility owners performing relocations.

2-9.3 Contractor's Surveys. Surveying by private engineers and surveyors on the Work shall conform to the quality and practice required by the Engineer.

2-9.3.1 Errors in Surveys. The Contractor is responsible for the accuracy of all surveys except those performed by the Engineer. To assure that a survey point set by the Engineer has not been disturbed since it was set and that it was accurately set, all surveys by the Contractor shall be based on at least two survey points set by the Engineer or by other governmental surveys, in accordance with good survey practice. Should discrepancies be found between such points, the Engineer shall be notified and construction shall not proceed until the discrepancy has been resolved.

2-9.4 Line and Grade. All Work upon completion shall conform to the lines, elevations, and grades shown on the Plans.

2-9.5 Quantity Surveys. The Engineer will perform all quantity surveys for payment purposes, however, in performing such quantity surveys, it may make use of surveys performed by the Contractor.

2-9.6 Payment for Surveys. Payment for performing all of the surveying and staking as required by the Specifications and such additional surveying and staking as required by the Contractor will be made at the lump sum price set forth in the Proposal and shall be full compensation for furnishing all labor, equipment, instruments and materials necessary to perform the Work. If no bid item for surveying is included in the Proposal, the cost of surveying shall be included in the prices bid for other applicable items of work.

2-10 AUTHORITY OF BOARD AND ENGINEER. The Board has the final authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Plans and Specifications. The Contractor shall promptly comply with instructions from the Engineer or its authorized representative.

On all questions relating to quantities, the acceptability of material, equipment, or work, the execution, progress or sequence of work, and the interpretation of Specifications or drawings, the decision of the Engineer is final and binding, and shall be precedent to any payment under the Contract, unless otherwise ordered by the Board.

2-10.1 Decisions in Writing. Any and all decisions of the Engineer interpreting Specifications or drawings shall be in writing. Any purported "interpretation" which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

2-11 INSPECTION

The Work is subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon of the working day before inspection is required. Work shall be done only in the presence of the Engineer, unless otherwise authorized. Any work done without proper inspection will be subject to rejection. The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with these specifications. Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

2-11.1 Permit Inspections. The Contractor shall arrange for code compliance inspections by all agencies issuing permits for the Work. The Work shall not continue beyond mandatory inspection points without clearance from the controlling agency. Each agency involved shall be notified in accordance with the code they enforce or in accordance with their standard operating procedures. No extensions of time will be granted for delays occasioned by such inspections except where, through no fault of the Contractor, the inspection is delayed more than one Day beyond normal response time after proper notification has been given.
It shall be the Contractor's responsibility to see that any required inspection record card is signed off before proceeding with the next phase of the Work and completely signed off on completion of the Work.

2-11.2 Structural Observation. When the plans indicate that "Structural Observation" of specific work is required prior to Permit Inspection, Contractor shall notify Engineer, in writing, at least five working days prior to the date Contractor plans to have the work ready for structural observation. If the work is not ready for structural observation on the date indicated, Contractor shall reimburse Agency the cost of structural observer's visit to the Work site. If the work to be observed is substantially complete but is found to need correction before approval by the structural observer, Contractor shall give notice of a new date, as required above.

2-12 SPECIAL NOTICES. When specified in the Specifications or as directed by the Engineer, any notice required to be given in accordance with this subsection shall be in writing, dated, and signed by the Contractor or the Engineer. Such notices shall be served by any of the following methods:

a) Personal delivery with proof of delivery which may be made by declaration under penalty of perjury by any person over the age of 18 years. The proof of delivery shall show that delivery was performed in accordance with these provisions. Service shall be effective on the date of delivery. Notices given to the Contractor by personal delivery may be made to the Contractor's authorized representative at the Work site; or

b) Certified mail addressed to the mailing address of the recipient postage prepaid; return receipt requested. Service shall be effective on the date of the receipt of the mailing.

Simultaneously, the Agency may send the same notice by regular mail. If a notice that is sent by certified mail is returned unsigned, then delivery shall be effective pursuant to regular mail, provided the notice that was sent by regular mail is not returned.

2-13 AGENCY PERSONNEL AND AUTHORITY

2-13.1 General. The Board has complete authority for the project within the limits prescribed by law. Pursuant to resolutions duly adopted by the Board, the authority to perform certain functions has been delegated to the Director of Public Works. Agency staff personnel and Consultants delegated thereto by the Director are authorized to perform functions limited as set forth in the following list of personnel and designated duties.

2-13.2 Engineer. The Director of the Public Works Agency of the County of Ventura is the Engineer and has general authority to administer the Contract. The Engineer has the following specific authority:

(a) To issue Contract Change Orders (CCO) and to settle claims subsequent to Acceptance as follows:

Original Contract Amount	Maximum Amount of any Change Order or Claim Settlement
$50,000 or less	$5,000
greater than $50,000 and not over $250,000	10% of the original Contract amount
greater than $250,000 and not over $3,950,000	$25,000 plus 5% of the original Contract cost in excess of $250,000.
greater than $3,950,000	$210,000

CCOs and claim settlements exceeding the amounts set forth above require Board approval.

(b) To make final adjustments of quantities (FAQ) on unit price items.

(c) To accept the Work when the Contractor has completed all obligations of the Contract, in accordance with the Plans, Specifications and other Contract Documents. The Engineer also has authority to make and record the Notice of Completion.

(d) To approve progress and final payments under the Contract, including the provisions for withholding funds.

(e) To determine whether performance on the Work is satisfactory. Satisfactory performance includes compliance with all contract requirements.

(f) To approve the substitution of a Subcontractor, where allowed by law, if the listed Subcontractor does not object when notified.

(g) To suspend the Work for the benefit of the Agency.

(h) In the absence of the Agency Director, a Public Works Agency Department Director, as Deputy Director of Public Works, may exercise the Engineer's authority. Such action will be indicated by "Acting" with the Department Director's signature.

2-13.3 Department Director (Public Works Agency). The Department Director responsible for the project is designated in the Notice to Proceed. The Department Director has the following authority:

(a) To issue Contract Change Orders (CCO) as follows:

Original Contract Amount	Maximum Amount of any Change Order
Less than $500,000	$5,000
$500,000 to $1,000,000	1% of Bid Price
Greater than $1,000,000	$10,000

(b) To issue extensions of Contract time in accordance with the Contract Documents.

(c) To make final adjustment of quantities where the total does not exceed the amounts listed in (a) above.

(d) To approve the substitution of subcontractors, where allowed by law, if the listed Subcontractor does not object when notified.

(e) To determine when the Work has been completed and acknowledge in writing the completion of the Work.

2-13.4 Project manager. The Project manager responsible for the project is designated in the Notice to Proceed. This person may also be referred to as Project Engineer. The Project manager has the following authority:

(a) To interpret the Plans and Specifications.

(b) To make minor changes in the location or features of the Work where no change in cost is involved. Such changes in cost may not be the net of multiple changes.

(c) To approve substitutes for material and equipment specified by proprietary names when such material and equipment meet the Contract requirements.

(d) To approve shop drawings and submittals.

(e) To issue stop work orders when necessary to enforce the provisions of the Contract.

(f) To make determinations of each Working Day to be charged against the Contract time in accordance with 6-7.3.

(g) To take over a portion of the Work for Agency's use in accordance with 6-10.

(h) To receive all correspondence and other documents from the Contractor.

(i) To inspect the Work and perform Final Inspection subject to review by the Department Director and the Engineer.

2-13.5 Inspector. One or more inspectors will be assigned to the project by the Project manager. Substitutes may be used during absence of the assigned inspector. The Inspector has the following authority subject to review by the Project manager, Department Director and the Engineer:

(a) To view and inspect the Work, sample and test components (at the Work site and at offsite manufacturing locations), and to discuss the Work with the Contractor's field representative.

(b) To determine compliance with the Plans, Specifications and other Contract Documents and to issue warnings of noncompliance.

(c) To issue stop work notices in the following two instances only:

1) Where a safety hazard exists that has an immediate potential for serious injury or death.

2) Where the operation in progress, if continued for even a short period of time, could be adverse to the Agency's interests.

2-13.6 Other Agency Personnel and Consultants.

2-13.6.1 Materials Engineer. The Materials Engineer is designated in the Notice to Proceed. The Materials Engineer may assign one or more Materials Inspectors to the project.

Materials Inspectors have authority to sample and test material at the Work site and at offsite manufacturing or storage locations. They may furnish available written test results to the Contractor's field representative. At batch plants, they may issue warnings of noncompliance, but stop notices require the signature of the Materials Engineer or Project manager.

2-13.6.2 Surveyors & Technicians. Surveyors and technicians shall have free access to the site to perform their duties but have no authority related to Contract administration.

2-13.6.3 Other Persons. Other Agency personnel who are not involved in construction administration and the general public may be present at the site because it is their present place of work, as client/customers, as visitors, as future users of the facility, or as persons who will maintain the completed facility. Where the facility is to continue in use during construction, work access for Agency workers and client/customers shall be maintained as provided in the Special Provisions. Where the facility (or portion where construction is being performed) is not in use during construction, admittance to the Work site by Agency personnel not involved in construction administration and visitors may be allowed by the Contractor or by the inspector, subject to compliance with safety regulations. Such persons have no authority under the Contract and the Agency is not responsible for their comments, suggestions or directions.

2-13.6.4 Consultants. Consultants hired by the Agency shall have free access to the site to perform their duties but have no authority related to Contract administration, unless such duties are specifically identified in writing to the Contractor. When so identified, Consultant may perform the duties of certain Agency personnel described above.

SECTION 3 - CHANGES IN WORK

3-1 CHANGES REQUESTED BY THE CONTRACTOR

3-1.1 General. Changes in specified methods of construction may be made at the Contractor's request when approved in writing by the Engineer. Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the Agency, may be granted by the Board to facilitate the Work, when approved in writing by the Engineer. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.

3-1.2 Payment for Changes Requested by the Contractor. If such changes are granted, they shall be made at a reduction in cost or at no additional cost to the Agency. All costs to the Agency in reviewing the proposed change, or testing materials involved therein, shall be paid for by the Contractor, whether or not the change is approved.

3-2 CHANGES INITIATED BY THE AGENCY

3-2.1 General. The Agency may change the Plans, Specifications, character of the Work, or quantity of work, provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the Contract Price. Should it become necessary to exceed this limitation, the change shall be by written Supplemental Agreement between the Contractor and Agency, unless both parties agree to proceed with the change by Change Order.

Change orders shall be in writing and state the dollar value of the change or establish method of payment, any adjustment in Contract time, and, when negotiated prices are involved, shall provide for the Contractor's signature indicating its acceptance.

3-2.2 Payment for Changes Initiated by the Agency.

3-2.2.1 Contract Unit Prices. If a change is ordered in an item of work covered by a Contract unit price, and such change does not involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made based upon the increase or decrease in quantity and the Contract unit price. In the case of such an increase or decrease in a Major Bid Item, the use of this basis for the adjustment of payment will be limited to that portion of the change which, together with all previous changes to that item, is not in excess of 25% of the total cost of such item based on the original quantity and Contract unit price.

If a change is ordered in an item of work covered by a Contract unit price, and such change does involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made in accordance with 3-2.2.3.

Should any Contract item be deleted in its entirety, payment will be made only for actual costs incurred prior to notification of such deletion.

3-2.2.2 Stipulated Unit Prices. Stipulated unit prices are those established by the Agency in the Contract Documents, as distinguished from Contract unit prices submitted by the Contractor. Stipulated unit prices may be used for the adjustment of Contract changes.

3-2.2.3 Pricing. Adjustments in payments for changes other than those set forth in 3-2.2.1 and 3-2.2.2 will be determined by agreement between Contractor and Agency. If unable to reach agreement, the Agency may direct the Contractor to proceed on the basis of Extra Work in accordance with 3-3 or as set forth in 3-2.2.4.

3-2.2.4 Non-Agreed Prices. Agency may issue a change order directing the Contractor to proceed at a price set by the Agency or on the basis of Extra Work. If the Agency sets a price for the work covered by the change order, Contractor is entitled to payment for such work in accordance with 3-3 to the extent payment in accordance with 3-3 exceeds the price set by the Agency.

3-3 EXTRA WORK

3-3.1 General. New or unforeseen work will be classed as "Extra Work" when the Engineer determines that it is not covered by Contract Unit Prices or Stipulated Unit Prices.

3-3.2 Payment.

3-3.2.1 General. When the price for the Extra Work cannot be agreed upon, the Agency will pay for the Extra Work based on the accumulation of costs as provided herein.

3-3.2.2 Basis for Establishing Costs

(a) Labor. The cost of labor will be the current cost for wages prevailing for each craft or type of workers performing the Extra Work at the time the Extra Work is done, plus payment of health and welfare, pension, vacation, apprenticeship funds, and other direct costs included in the prevailing rates applicable to the project, as well as assessments or benefits required by lawful collective bargaining agreements. To the total of these labor costs, the labor surcharge set forth in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication shall be applied.

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 the equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to Extra Work shall be paid. A foreman is defined as a lead working journeyman.

Nondirect labor costs including superintendence, payroll taxes, all types of insurance, and all other labor costs, not specifically provided for, shall be considered to be paid for as part of the markup of 3-3.2.3(a)(1).

(b) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the Work site in the quantities involved, plus sales tax, freight and delivery.

The Agency reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the Agency.

(c) Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of $200 or less.

Regardless of ownership, the rates to be used for determining equipment rental costs shall not exceed the following:

(1) For equipment that is listed in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication, the rates shown therein. The right of way delay and overtime/multiple shift factors contained therein shall be used as applicable.

(2) For equipment not listed in said CALTRANS publication, the listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.

(3) For equipment rental that includes operators and helpers, the applicable cost from (1) or (2) above, plus the applicable labor costs as determined in accordance with (a) above.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Necessary loading and transportation costs for equipment used on the Extra Work shall be added to the other costs.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the Agency than holding it at the work site, it shall be returned, unless the Contractor elects to keep it at the work site at no expense to the Agency.

All equipment shall be acceptable to the Engineer, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

The reported rental rates for equipment already at the work site shall be for the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site, and move it back to its previous site or to a closer site of next use.

3-3.2.2 Basis for Establishing Costs (Continued)

(d) Other Items. The Agency may authorize other items which may be required on the Extra Work. Such items include labor, service, material and equipment which are different in their nature from those required for the Work specified in the Contract and which are of a type not ordinarily available from the Contractor or any of its subcontractors.

Invoices covering all such items in detail shall be submitted with the request for payment.

(e) Invoices. Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the Agency may establish the cost of the item involved at the lowest price which was current at the time of the report.

3-3.2.3 Markup

(a) Work by Contractor. The following percentage shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits, and all other cost not specifically provided for:

(1) Labor 33%
(2) Materials..... 15%
(3) Equipment Rental 15%
(4) Other Items and Expenditures ... 15%

To the sum of the cost and markups provided for in this section, 1 percent shall be added as compensation for bonding.

(b) Work by Subcontractor. When all or any part of the Extra Work is performed by a Subcontractor, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor's actual cost of such work. A markup of 10% on the first $5,000 of the subcontracted portion of the Extra Work and a markup of 5% on work in excess of $5,000 of the subcontracted portion of the Extra Work may be added by the Contractor.

3-3.3 Daily Extra Work Reports by Contractor. When the price for the Extra Work cannot be agreed upon, the Contractor shall submit a Daily Extra Work Report to the Engineer on forms furnished by the Agency, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and for other services and expenditures when authorized. Failure to submit the Daily Extra Work Report, showing the labor and equipment hours and the quantity of materials used, by the close of the next Working Day may waive any rights for that day. Failure to submit fully completed Daily Extra Work Reports, with the required supporting documentation, within ten calendar days after the Engineer makes a written request for the such reports shall waive all rights for the work covered by the requested reports. An attempt shall be made to reconcile the Daily Extra Work Report daily, and it shall be signed by the Engineer and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the Daily Extra Work Report. Daily Extra Work Reports by Subcontractors or others shall be submitted through the Contractor.

The Daily Extra Work Report shall:

1) Show names of workers, classifications, and hours worked.
2) Describe and list quantities of materials used.
3) Show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
4) Describe other services and expenditures in such detail as the Agency may require.

In addition to the Daily Extra Work Reports, the Contractor shall furnish Certified Payroll Records for the labor included in the reports before payment will be made.

3-4 CHANGED CONDITIONS. The Contractor shall notify the Engineer in writing of the following work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed:

1) Subsurface or latent physical conditions differing materially from those represented in the Contract;
2) Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character being performed; and
3) Material differing from that represented in the Contract which the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law.

The Engineer will promptly investigate conditions which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the Work in accordance with 3-2.2. If the Engineer determines that conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, will be granted an extension of time subject to the provisions of 6-6.

If the Engineer determines that the conditions of which it has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so notified in writing. This notice will also advise the Contractor of its obligation to notify the Engineer, in writing, if the Contractor disagrees.

Should the Contractor disagree with such determination, it may submit a written notice of potential claim to the Engineer before commencing the disputed work. In the event of such a disagreement, the Contractor shall not be excused on account of that disagreement from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. However, the Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties. The Contractor shall proceed as provided in 3-5.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

3-5 DISPUTED WORK. If the Contractor and the Agency are unable to reach agreement on disputed work, the Agency may direct the Contractor to proceed with the Work. Payment shall be as later determined by mediation or arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under Extra Work provisions, the Contractor shall keep and furnish records of disputed work in accordance with 3-3.

SECTION 4 - CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General. All materials, parts, and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Quality of work shall be in accordance with the generally accepted standards. Material and work quality shall be subject to the Engineer's approval.

Materials and work quality not conforming to the requirements of the Specifications shall be considered defective and will be subject to rejection. Defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at its expense, when so directed by the Engineer.

If the Contractor fails to replace any defective or damaged work or material after reasonable notice, the Engineer may cause such work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

Used or secondhand materials, parts, and equipment may be used only if permitted by the Specifications.

4-1.1.1 Materials Furnished by Agency. Materials furnished by the Agency will be available at locations designated in the Special Provisions or if not designated in the Special Provisions, they will be delivered to a single location of Agency's choice within the project area. They shall be hauled to the site of installation by the Contractor at its expense, including any necessary loading and unloading that may be involved. The cost of handling and placing materials furnished by the Agency shall be considered as included in the price paid for the Contract item involving such furnished materials.

The Contractor will be held responsible for all materials furnished to it, and it shall pay all demurrage and storage charges. Furnished materials, after delivery to Contractor, lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the Agency for the cost of replacing lost or damaged furnished material and such costs may be deducted from any monies due or to become due the Contractor.

4-1.2 Protection of Work and Materials. The Contractor shall provide and maintain storage facilities and employ such measures as will preserve the specified quality and fitness of materials to be used in the Work. Stored materials shall be reasonably accessible for inspection. The Contractor shall also adequately protect new and existing work and all items of equipment for the duration of the Contract.

The Contractor shall not, without the Agency's consent, assign, sell, mortgage, hypothecate, or remove equipment or materials which have been installed or delivered and which may be necessary for the completion of the Contract.

4-1.3 Inspection Requirements

4-1.3.1 General. Unless otherwise specified, inspection is required at the source for asphalt concrete pavement mixtures, structural concrete, metal fabrication, metal casting, welding, concrete pipe manufacture, protective coating application, and similar shop or plant operations. Steel pipe in sizes less than 450 mm (18 inches), vitrified clay and cast iron pipe in all sizes are acceptable upon certification as to compliance with the Specifications, subject to sampling and testing by the Agency. Standard items of equipment such as electric motors, conveyors, elevators, plumbing fixtures, etc., are subject to inspection at the Work site only. Special items of equipment such as designed electrical panel boards, large pumps, sewage plant equipment, etc., are subject to inspection at the source, normally only for performance testing. The Specifications may require inspection at the source for other items not typical of those listed in this section.

4-1.3.2 Inspection of Materials Not Locally Produced. When the Contractor intends to purchase materials, fabricated products, or equipment from sources located more than 80 km (50 miles) outside the geographical limits of the Agency, an inspector or accredited testing laboratory (approved by the Engineer), shall be engaged by the Contractor at its expense, to inspect the materials, equipment or process. This approval shall be obtained before producing any material or equipment. The inspector or representative of the testing laboratory shall evaluate the materials for conformance with the Plans and Specifications. The Contractor shall forward reports required by the Engineer. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without proper inspection by the approved agent. Approval by said agent shall not relieve the Contractor of responsibility for complying with the Contract requirements.

4-1.3.3 Inspection by the Agency. The Agency will provide all inspection and testing laboratory services within 80 km (50 miles) of the geographical limits of the Agency.

4-1.3.4 Certificates of Compliance. The Engineer may require certificates of compliance with the Specifications for materials or manufactured items produced outside of the Work site. Such certificates will not relieve the Contractor from the requirements of providing material and manufactured items complying with the Specifications even though they have been incorporated into the Work.

4-1.4 Tests of Materials. Before incorporation in the Work, the Contractor shall submit samples of materials, as the Engineer may require, at no cost to the Agency. The Contractor, at its own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing and a reasonable amount of retesting shall be performed under the direction of the Engineer, and at no expense to the Contractor. If the Contractor is to provide and pay for testing, the Specifications will so state.

The Contractor shall notify the Engineer in writing, at least 15 Days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.

If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor's responsibility to re-notify the Engineer when samples which are representative may be obtained.

4-1.5 Certification. The Engineer may waive materials testing requirements of the Specifications and accept the manufacturer's written certification that the materials to be supplied meet those requirements. Materials test data may be required as part of the certification.

4-1.6 Trade Names or Equals. The Contractor may supply any of the materials specified or offer an equivalent. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination.

Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words **or equal**. A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment considered to be equivalent to that indicated. The substantiation of offers shall be submitted as provided in the Contract Documents.

The Contractor shall, at its expense, furnish data concerning items offered by it as equivalent to those specified. The Contractor shall have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. The Engineer’s findings shall be final. Installation and use of a substitute item shall not be made until approved by the Engineer.

If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this section.

4-1.6.1 Compatibility with Design. Where the size, configuration, weight, fastening locations, fastening strength, utility rough-in locations, and utility capacities of equipment or devices offered by the Contractor as equivalents do not conform to those provided for in the Contract Documents or those which are necessary for equipment or devices indicated by brand names, the Contractor shall bear all costs of redesign and changes in construction necessary to adapt the offered equipment or device to the Work.

Equipment or devices will not be considered "equal" where the life cycle cost of operation, utilities and maintenance of the offered alternate is greater than those listed by brand names. Life cycle costs shall mean utility charges (demand and usage charges), maintenance, operating personnel and replacement (equipment, installation and down time expenses) all reduced to an average annual rate using the current interest rate earned on funds invested by the County Treasurer.

4-1.6.2 Trade Names Listed. Where the Agency has listed products by brand or trade name on the Plans or in the Specifications, or both, this shall not be construed as meaning every product may be used without furnishing shop drawings, without redesign of the facility or without a change in utility rough-in requirements.

Where use of products listed on the Plans or in the Specifications, or both, or where use of a substitute proposed as an "equal" product requires shop drawings, redesign of the facility, or revisions in the size and location of rough-in utility connections, or in connecting work, the Contractor shall provide any necessary shop drawings, or shall cause the preparation of any necessary redesign or revisions to the Plans at its own expense and shall bear the full cost of any necessary additional construction or reconstruction work. No work described in shop drawings, a redesign, or a revision to the Plans shall be undertaken until such shop drawings, redesign, or revisions have been approved by the Engineer. Any proposed redesign or revision to the Plans shall be accompanied by complete computations and details prepared by an appropriate licensed design professional.

4-1.7 Weighing Equipment. All scales used for proportioning materials shall be inspected for accuracy and certified within the past 12 months by the State of California Bureau of Weights and Measures, by the County Director or Sealer of Weights and Measures, or by a scale mechanic registered with or licensed by the County.

The accuracy of the work of a scale service agency, except as stated herein, shall meet the standards of the California Business and Professions Code and the California Code of Regulations pertaining to weighing devices. A certificate of compliance shall be presented, prior to operation, to the Engineer for approval and shall be renewed whenever required by the Engineer at no cost to the Agency.

All scales shall be arranged so they may be read easily from the operator's platform or area. They shall indicate the true net weight without the application of any factor. The figures of the scales shall be clearly legible. Scales shall be accurate to within 1 percent when tested with the plant shut down. Weighing equipment shall be so insulated against vibration or moving of other operating equipment in the plant area that the error in weighing with the entire plant running will not exceed 2 percent for any setting nor 1.5 percent for any batch.

4-1.8 Calibration of Testing Equipment. Testing equipment, such as, but not limited to, pressure gages, metering devices, hydraulic systems, force (load) measuring instruments, and strain-measuring devices shall be calibrated by a testing agency acceptable to the Engineer at intervals not to exceed 12 months and following repairs, modification, or relocation of the equipment. Calibration certificates shall be provided when requested by the Engineer.

SECTION 5 - UTILITIES

5-1 LOCATION. The Permittee (in the case of Private Contracts) and the Agency (in the case of Cash or Assessment Act Contracts), will search known substructure records and furnish the Contractor with copies of documents which describe the location of utility substructures, or will indicate on the Plans for the project those substructures (except for service connections) which may affect the Work. Information regarding removal, relocation, abandonment, or installation of new utilities will be furnished to prospective bidders.

Where underground main distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the Plans, the Contractor shall assume that every property parcel will be served by a service connection for each type of utility.

As provided in Section 4216 of the California Government Code, at least 2 working days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number.

The California Department of Transportation is not required by Section 4216 to become a member of the regional notification center. The Contractor shall contact it for location of its subsurface installations.

The Contractor shall determine the location and depth of all utilities, including service connections, which have been marked by the respective owners and which may affect or be affected by its operations. If no pay item is provided in the Contract for this work, full compensation for such work shall be considered as included in the prices bid for other items of work.

5-2 PROTECTION. The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the owner or order from the Agency. All valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff.

Where protection is required to ensure support of utilities located as shown on the Plans or in accordance with 5-1, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at its expense.

Upon learning of the existence and location of any utility omitted from or shown incorrectly on the Plans, the Contractor shall immediately notify the Engineer in writing. When authorized by the Engineer, support or protection of the utility will be paid for as provided in 3-2.2.3 or 3-3.

The Contractor shall immediately notify the Engineer and the utility owner if any utility is disturbed or damaged. The Contractor shall bear the costs of repair or replacement of any utility damaged if located as noted in 5-1.

When placing concrete around or contiguous to any non-metallic utility installation, the Contractor shall at its expense:

1. Furnish and install a 50 mm (2 inch) cushion of expansion joint material or other similar resilient material; or
2. Provide a sleeve or other opening which will result in a 50 mm (2 inch) minimum-clear annular space between the concrete and the utility; or
3. Provide other acceptable means to prevent embedment in or bonding to the concrete.

Where concrete is used for backfill or for structures which would result in embedment, or partial embedment, of a metallic utility installation; or where the coating, bedding or other cathodic protection system is exposed or damaged by the Contractor's operations, the Contractor shall notify the Engineer and arrange to secure the advice of the affected utility owner regarding the procedures required to maintain or restore the integrity of the system.

5-3 REMOVAL. Unless otherwise specified, the Contractor shall remove all interfering portions of utilities shown on the Plans or indicated in the Bid documents as "abandoned" or "to be abandoned in place". Before starting removal operations, the Contractor shall ascertain from the Agency whether the abandonment is complete, and the costs involved in the removal and disposal shall be included in the Bid for the items of work necessitating such removals.

5-4 RELOCATION. When feasible, the owners responsible for utilities within the area affected by the Work will complete their necessary installations, relocations, repairs, or replacements before commencement of work by the Contractor. When the Plans or Specifications indicate that a utility installation is to be relocated, altered, or constructed by others, the Agency will conduct all negotiations with the owners and work will be done at no cost to the Contractor, except as provided in 301-1.6. Utilities which are relocated in order to avoid interference shall be protected in their position and the cost of such protection shall be included in the Bid for the items of work necessitating such relocation.

After award of the Contract, portions of utilities which are found to interfere with the Work will be relocated, altered or reconstructed by the owners, or the Engineer may order changes in the Work to avoid interference. Such changes will be paid for in accordance with 3-2.

When the Plans or Specifications provide for the Contractor to alter, relocate, or reconstruct a utility, all costs for such work shall be included in the Bid for the items of work necessitating such work. Temporary or permanent relocation or alteration of utilities requested by the Contractor for its convenience shall be its responsibility and it shall make all arrangements and bear all costs.

The utility owner will relocate service connections as necessary within the limits of the Work or within temporary construction or slope easements. When directed by the Engineer, the Contractor shall arrange for the relocation of service connections as necessary between the meter and property line, or between a meter and the limits of temporary construction or slope easements. The relocation of such service connections will be paid for in accordance with provisions of 3-3. Payment will include the restoration of all existing improvements which may be affected thereby. The Contractor may agree with the owner of any utility to disconnect and reconnect interfering service connections. The Agency will not be involved in any such agreement.

5-5 DELAYS. The Contractor shall notify the Engineer of its construction schedule insofar as it affects the protection, removal, or relocation of utilities. Said notification shall be included as a part of the construction schedule required in 6-1. The Contractor shall notify the Engineer in writing of any subsequent changes in the construction schedule which will affect the time available for protection, removal, or relocation of utilities.

The Contractor will not be entitled to damages or additional payment for delays attributable to utility relocations or alterations if correctly located, noted, and completed in accordance with 5-1.

The Contractor may be given an extension of time for unforeseen delays attributable to unreasonably protracted interference by utilities in performing work correctly shown on the Plans.

The Agency will assume responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities within the area affected by the Work if such utilities are not identified in the Contract Documents. The Contractor will not be assessed liquidated damages for any delay caused by failure of Agency to provide for the timely removal, relocation, or protection of such existing facilities.

If the Contractor sustains loss due to delays attributable to interferences, relocations, or alterations not covered by 5-1, which could not have been avoided by the judicious handling of forces, equipment, or plant, there shall be paid to the Contractor such amount as the Engineer may find to be fair and reasonable compensation for such part of the Contractor's actual loss as was unavoidable and the Contractor may be granted an extension of time.

5-5.1 Cooperation During Utility Relocation. When utilities are to be relocated during construction, the Contractor shall cooperate and coordinate with the respective utility owners so they may relocate their facilities to clear the Work. Delays in relocation of utilities which result from failure to cooperate and coordinate will not be a cause for an extension of time or Non-Working Days.

5-6 COOPERATION. When necessary, the Contractor shall so conduct its operations as to permit access to the Work site and provide time for utility work to be accomplished during the progress of the Work.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. The requirements of this section concerning submission of construction schedules shall not apply to projects where the time allowed to complete the Work is less than 25 Working Days or the total Contract Price bid is less than $75,000 unless required by the special provisions.

The Contractor shall submit a construction schedule concurrently with the submittal of signed Contract, Contract bonds, and certificate of insurance. The Notice to Proceed will be delayed until the schedule is received. See 6-7.4, Starting of Contract Time.

When required by the Special Provisions, a revised schedule shall be submitted monthly prior to each progress payment closure date. Processing of the progress payment will be delayed until such revised schedule complying with this section is received.

The construction schedule shall be in the form of a Construction Element vs. Time Chart as shown in Appendix B-1and a Work Complete vs. Time Chart as shown in Appendix B-2.

The B-1 Chart shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The B-1 Chart shall recognize the requirements of 5-5. The B-1 Chart shall reflect obtaining all materials and completing all Work under the Contract within the specified time and in accordance with these Specifications. If the Contractor intends to complete the Work prior to the time for completion, the intended date of completion shall be set forth in the B-1 Chart and the Contractor shall execute a Contract Change Order that changes the number of Working Days allowed for completion to conform with such intended completion date. The Change Order shall not change the Contract Price.

The Contractor may submit a computer generated schedule in lieu of the form in Appendix B-1 and B-2, provided all of the elements shown on that form or specified herein are included.

An updated construction schedule shall be submitted prior to the next progress payment closure date whenever the actual percent Work complete versus percent time elapsed curve falls below and to the right of the dotted line shown on Appendix B-2.

If the Contractor desires to make a major change in its method of operations after commencing construction, or if its schedule fails to reflect the actual progress, it shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Revised and updated schedules shall show actual completion to the date of the revision in the lower segmented bar for each item.

The construction schedule shall be prepared as follows (see examples in Appendices C-1 and C-2):

1. On theB-1 Chart:
   - a Enter the project name and Specification No. as shown on the notice inviting bids and the Contractors name.
   - b. List the items of Work either individually or combined where items are part of the same element of the Work.
   - c. Assign a value for each horizontal space plotting interval in Working Days as follows: 1 working day for total Contract time of less than 100 working days, 2 for 100 to 200 working days and 5 for longer projects. Enter the value used in the space provided in the lower part of the form.
   - d. At the end of performance time and draw a vertical line and label it "End Performance Time". Enter numbers at 10 times the plotting interval at the top of intermediate vertical lines.
   - e. Shade in a bar in the upper segmented section for each work item to indicate the period during which Work will be performed. Move-in time and delivery time for materials shall be shown if significant to the schedule.

2. On the B-2 Chart:
   a. Enter the project name and Specification No. as shown on the notice inviting bids.
   b. At time intervals of 10 or 20 working days:
      (1) Compute the cumulative dollar value of Work which is expected to be completed for each item of Work, including the value of the completed portion of lump-sum items.
      (2) Divide the values computed in "b(1)" by the Total Contract Price to determine the percentage of the entire Contract planned for completion at the end of each time interval.
      (3) Divide the days of performance time at the end of each time interval by the total Contract performance time to obtain the percentage of elapsed performance time.
   c. Plot each percentage of completion value figure computed in "b(2)" against the corresponding percentage of completion time computed in "b(3)" using scales on the bottom and left side of chart.
   d. Connect points plotted in "c" with a line which will show the planned progress for the entire job.

If the proposed percent Work complete versus percent time elapsed line falls below and to the right of the dotted line drawn on the B-2 Chart, the Contractor shall provide sufficient information and backup to show that the Work can be completed on time.

6-1.1 Beginning of Work. The issuance of Notice to Proceed by Agency shall constitute the Contractor's authority to enter upon the site of the Work and to begin operations provided it has also notified Engineer at least 24 hours in advance. Entry upon the site without authority will be treated as trespassing.

6-1.2 Starting Work. The Contractor may start work at any time after the Notice to Proceed is issued but work shall begin within 15 Days after the starting date for the Contract, or at such other time as may be indicated in the Special Provisions. The actual date on which the Contractor starts work will not affect the required time for completion as provided for in 6-7 and 6-7.1.

6-1.3 Work Sequence. If required by the Special Provisions, the Contractor shall start construction operations on that part of the Work designated by the Engineer.

6-1.4 Resources Required. The Work shall be conducted in such a manner and with sufficient materials, equipment, and labor to insure its completion in accordance with the Plans and Specifications within the time set forth in the Contract.

6-2 PROSECUTION OF WORK. To minimize public inconvenience and possible hazard and to restore streets and other Work areas to their original condition and former state of usefulness as soon as practicable, the Contractor shall diligently prosecute the Work to completion. If, in the Engineer's opinion, the Contractor fails to prosecute the Work to the extent that the above purposes are not being accomplished, the Contractor shall, upon orders from the Engineer, immediately take the steps necessary to fully accomplish said purposes. All costs of prosecuting the Work as described herein shall be absorbed in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes, after orders of the Engineer to do so, the Engineer may suspend the Work in whole or in part, until the Contractor takes said steps.

As soon as possible under the provisions of these Specifications, the Contractor shall backfill all excavations and restore to usefulness all improvements existing prior to the start of the Work.

If Work is suspended through no fault of the Agency, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the Work during periods of suspension, the Agency may elect to do so, and deduct the cost thereof from monies due the Contractor. Such action will not relieve the Contractor from liability.

6-3 SUSPENSION OF WORK

6-3.1 General. The Work may be suspended in whole or in part when determined by the Engineer that the suspension is necessary in the interest of the Agency. The Contractor shall comply immediately with any written order of the Engineer. Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-6.3.

6-3.2 Archaeological and Paleontological Discoveries. If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer. When resumed, excavation operations within the area of discovery shall be as directed by the Engineer.

Discoveries which may be encountered may include, but not be limited to, dwelling sites, stone implements or other artifacts, animal bones, human bones and fossils.

The Contractor shall be entitled to an extension of time and compensation in accordance with the provisions of 6-6.

6-3.3 Temporary Suspension of Work. Should suspension of Work be ordered by reason of the failure of the Contractor to carry out orders or to perform any provisions of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of Work; the Contractor, at its expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of such suspension. In the event that the Contractor fails to perform the work above specified, the Agency may perform such work and the cost thereof will be deducted from monies due or to become due the Contractor.

If the Engineer orders a suspension of all of the Work, or a portion of the Work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the Work, the days on which the suspension is in effect shall not be considered Working Days.

If a portion of Work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of Working Days will be made on the basis of the then current controlling operation or operations.

If a suspension of Work is ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the Days on which the suspension order is in effect shall be considered Working Days if such days are Working Days as defined.

6-4 TERMINATION OF THE CONTRACT FOR DEFAULT..

6.4.1 General. If, prior to the acceptance of the Work, the Contractor:

a) becomes insolvent, assigns its assets for the benefit of its creditors, is unable to pay its debts as they become due, or is otherwise financially unable to complete the Work,

b) abandons the Work by failing to report to the Work site and diligently prosecute the Work to completion,

c) disregards written instructions from the Agency or materially violates provisions of the Contract Documents,

d) fails to prosecute the Work according to the schedule approved by the Engineer,

e) disregards laws or regulations of any public body having jurisdiction, or

f) commits continuous or repeated violations of regulatory or statutory safety requirements, then the Agency will consider the Contractor in default of the Contract.

Notices, and other written communications regarding default between the Contractor, the Agency, and the Surety shall be transmitted in accordance with 2-12.

6-4.2 Notice to Cure. The Agency will issue a written notice to cure the default to the Contractor and its Surety. The Contractor shall commence satisfactory corrective actions within 5 Working Days after receipt.

6-4.3 Notice of Termination for Default. If the Contractor fails to commence satisfactory corrective action within 5 Working Days after receipt of the notice to cure, or to diligently continue satisfactory and timely correction of the default thereafter, then the Agency will consider the Contractor in default of the Contract and:

a) will terminate the Contractor's right to perform under the Contract by issuing a written notice of termination for default to the Contractor and its Surety,

b) may use any materials, equipment, tools or other facilities furnished by the Contractor to secure and maintain the Work site, and

c) may furnish labor, equipment, and materials the Agency deems necessary to secure and maintain the Work site. The provisions of this subsection shall be in addition to all other legal rights and remedies available to the Agency.

6-4.4 Responsibilities of the Surety. Upon receipt of the written notice of termination for default, the Surety shall immediately assume all rights, obligations and liabilities of the Contractor under the Contract. If the Surety fails to protect and maintain the Work site, the Agency may do so, and may recover all costs incurred. The Surety shall notify the Agency that it is assuming all rights, obligations and liabilities of the Contractor under the Contract and all money that is due, or would become due, to the Contractor shall be payable to the Surety as the Work progresses, subject to the terms of the Contract.

Within 15 Working Days of receipt of the written notice of termination for default, the Surety shall submit to the Agency a written plan detailing the course of action it intends to take to remedy the default. The Agency will review the plan and notify the Surety if the plan is satisfactory. If the Surety fails to submit a satisfactory plan, or if the Surety fails to maintain progress according to the plan accepted by the Agency, the Agency may, upon 48 hours written notice, exclude the Surety from the premises, take possession of all material and equipment, and complete the Work in any way the Agency deems to be expedient. The cost of completing the Work by the Agency shall be charged against the Surety and may be deducted from any monies due, or which would become due, the Surety. If the amounts due under the Contract are insufficient for completion, the Surety shall pay to the Agency, within 30 days after the Agency submits an invoice, all costs in excess of the remaining Contract Price.

6-4.5 Payment. The Surety will be paid for completion of the Work in accordance with 9-3 less the value of damages caused to the Agency by acts of the Contractor.

6-5 TERMINATION OF CONTRACT. The Board may terminate the Contract at its own discretion or when conditions encountered during the Work make it impossible or impracticable to proceed, or when the Agency is prevented from proceeding with the Contract by act of God, by law, or by official action of a public authority.

The Agency will issue a written notice of termination for convenience in accordance with 2-12. Upon receipt, the Contractor shall immediately cease work, except work the Contractor is directed to complete by the Engineer or required to complete for public safety and convenience. The Contractor shall immediately notify Subcontractors and suppliers to immediately cease their work.

The Contractor will be paid without duplication for:

a) work completed in accordance with the Contract Documents prior to the effective date of termination for convenience;

b) reasonable costs incurred in settlement of terminated contracts with Subcontractors, suppliers and others; and

c) reasonable expenses directly attributable to termination.

The Contractor shall submit a final termination settlement proposal to the Agency no later than 90 days from the effective date of termination, unless extended, in writing, by the Agency upon written request by the Contractor.

If the Contractor fails to submit a proposal, the Agency may determine the amount, if any, due the Contractor as a result of the termination. The Agency will pay the Contractor the amount it determines to be reasonable. If the Contractor disagrees with the amount determined by the Agency as being reasonable, the Contractor shall provide notice to the Agency within 30 days of receipt of payment. Any amount due shall be as later determined by arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

6-6 DELAYS AND EXTENSIONS OF TIME

6-6.1 General. If delays are caused by unforeseen events beyond the control of the Contractor, such delays will entitle the Contractor to an extension of time as provided herein, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3. Such unforeseen events may include war, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of work, other similar action of the elements, inability to obtain materials, equipment or labor, required Extra Work, or other specific events as may be further described in the Specifications.

No extension of time will be granted for a delay caused by the Contractor's inability to obtain materials unless the Contractor furnishes to the Engineer documentary proof of the inability to obtain such materials in a timely manner in accordance with the sequence of the Contractor's operations and the approved construction schedule.

If delays beyond the Contractor's control are caused by events other than those mentioned above, but substantially equal in gravity to those enumerated, and an extension of time is deemed by the Engineer to be in the best interests of the Agency, an extension of time may be granted, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3.

If delays beyond the Contractor's control are caused solely by action or inaction by the Agency, such delays will entitle the Contractor to an extension of time as provided in 6-6.2.

6-6.2 Extensions of Time. Extensions of time, when granted, will be based upon the effect of delays to the Work as a whole and will not be granted for noncontrolling delays to minor included portions of Work unless it can be shown that such delays did, in fact, delay the progress of the Work as a whole.

6-6.3 Payment for Delays to Contractor. The Contractor will be compensated for damages incurred due to delays for which the Agency is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor and delay the Work as a whole. Such actual costs will be determined by the Engineer. The Agency will not be liable for, and in making this determination the Engineer will exclude, all damages which the Engineer determines the Contractor could have avoided by any reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

6-6.4 Written Notice and Report. If the Contractor desires payment for a delay as specified in 6-6.3 or an extension of time, it shall, within 30 Days after the beginning of the delay, file with the Agency a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least 15 Days before the specified completion date. Failure by the Contractor to file these items within the time specified will be considered grounds for refusal by the Agency to consider such request.

6-6.4.1 Documentation of Delays. When the Contractor requests an extension of time for delay due to inability to obtain materials or equipment, the documentary proof required by 6-6.1 shall include the following:

1. Date Engineer was notified of delay.
2. Date the delay began.
3. Exact description of material or equipment causing delay.
4. Documentation showing when and from whom ordered.
5. Documentation of promise to deliver.
6. Documentation of actual delivery date.
7. Description of how late delivery caused delay (include construction schedule).
8. Documentation of measures taken to get prompt delivery.
9. Documentation of attempts to get delivery from other sources.
10. Description of steps taken in project scheduling to minimize effects of late delivery.
11. Description of steps taken to get project back on schedule after actual delivery.
12. Statement of actual time lost as a result of late delivery.

6-7 TIME OF COMPLETION

6-7.1 General. The Contractor shall complete the Work within the time set forth in the Contract. The Contractor shall complete each portion of the Work within such time as set forth in the Contract for such portion. Unless otherwise specified, the time of completion of the Contract shall be expressed in Working Day

6-7.2 Working Day. A Working Day is any day within the period between the start of the Contract time as defined in 6-1 and the date provided in the Contract for completion or upon field acceptance by the Engineer of all Work provided for in the Contract, whichever occurs first, other than:

(1) Saturday,
(2) Sunday,
(3) any day designated as a holiday by the Agency,
(4) any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a Contractor Association,
(5) any day the Contractor is prevented from working at the beginning of the workday for cause as defined in 6-6.1,
(6) any day the Contractor is prevented from working during the first 5 hours of the workday with at least 60 percent of the normal work force for cause as defined in 6-6.1.

6-7.2.1 Holidays. Solely for the purposes of paragraph (3) of 6-7.2, the following days are designated as holidays by the Agency.

MONTH	A AGENCY EMPLOYEE HOLIDAYS	B OTHER DESIGNATED HOLIDAYS
January	1st day; 3rd Monday	None
February	3rd Monday	12th day
March	None	31st day
March-April	None	One Friday between March 21 and April 23 designated as Good Friday
May	Last Monday	None
June	None	None
July	4th day	None
August	None	None
September	1st Monday	9th day
October	None	2nd Monday
November	11th day; 4th Thursday	the Friday following the 4th Thursday
December	25th	23rd day, only if Thursday or Friday; 24th day; 31st day

If any day listed above falls on Saturday, the preceding Friday is the holiday. If any day listed above falls on Sunday, the succeeding Monday is the holiday.

No extra holiday shall result when such Friday or Monday is already designated as a holiday.
A copy of a Working Day calendar incorporating the above-listed holidays and used by the Agency for Contract time accounting purpose will be furnished to the Contractor upon request.

The term "holiday" as used in this section shall not be construed as being the same as "holiday" within the meaning of 7-2.2.

The Contractor may perform work on the holidays designated in Column A above provided it has obtained prior written approval of the Engineer at least two Days in advance of performing the work. The Contractor may perform work on the holidays designated in Column B above provided the Contractor notifies the Engineer two Days in advance of the holiday.

6-7.2.2 Landscape Maintenance Period. Where a landscape maintenance period is specified, the portion of the time in such period that follows the completion of all other Work required by the Contract shall not be Working Days for Contract time accounting.

6-7.3 Contract Time Accounting. The Engineer will make a daily determination of each Working Day to be charged against the Contract time. These determinations will be discussed and the Contractor will be furnished a periodic statement showing the allowable number of Working Days of Contract time, as adjusted, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Working Days of Contract time remaining. If the Contractor does not agree with the statement, the Contractor must file a written protest within 15 Days after receipt, setting forth the facts of the protest. Otherwise, the statement will be deemed to have been accepted.

6-7.4 Starting Date for Contract Time and Notice to Proceed. The starting date for Contract time accounting will be determined by adding the number of Days indicated on the Proposal form to the date the Contract is awarded, however the Agency may, at its option, delay the starting date by not more than 60 calendar Days if necessary to obtain permits, rights-of-way, or approval of federal or State authorities, or when prevented from starting the project due to causes beyond its control. Notice to Proceed will be issued within 7 calendar Days after the Contract, bonds, certificates of insurance and other documents have been returned, properly completed by the Contractor, unless the starting date is delayed as herein provided. If the Agency delays the Contract starting date, Notice to Proceed will be issued at least 7 calendar Days prior to the new starting date. Any delay caused by failure of the Contractor to properly complete or timely return the Contract Documents shall not change the Contract starting date and shall not be a cause for extending the Contract time. The Notice of Award will indicate a probable Contract starting date. The Notice to Proceed will indicate the actual Contract starting date, computed as herein described.

6-8 COMPLETION, ACCEPTANCE AND WARRANTY.

6-8.1 Completion and Acceptance. Acknowledgment of completion of the Work will occur prior to Acceptance by the Agency. Acceptance will only occur after all Contract requirements have been fulfilled, such as training, submission of warranties, maintenance manuals, record drawings, Release on Contract and the like. Acceptance by the Agency will occur when the Engineer signs the Notice of Completion.
The Work will be inspected by the Engineer promptly upon receipt of the Contractor's written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Plans and Specifications, the Engineer will acknowledge completion of the Work. Completion of the Work, as used above, shall include the Contractor showing evidence of having received an occupancy clearance from Building and Safety, or other permit issuing agency, when a building, plumbing electrical, grading, or other permit is required for the Work. The Engineer will, in acknowledging completion of the Work, set forth in writing the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. This will also be the date to which liquidated damages will be computed.

6-8.2 Warranty and Correction

6-8.2.1 Warranty The Contractor warrants to the Agency that materials and equipment furnished under the Contract will be new, unless otherwise specified in the Contract Documents, and of good quality, that the Work will be free from defects in materials and workmanship and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by the Agency. This warranty excludes damage or defect caused by abuse (other than by the Contractor or those under the control of the Contractor), modifications not executed by the Contractor, or improper or insufficient maintenance. This warranty excludes normal wear and tear. Nothing in this warranty is intended to limit any manufacturer's warranty which provides the Agency with greater warranty rights.

6-8.2.2 Correction Period For a period of one (1) year from the date of acceptance of the Work by the Agency, the Contractor shall repair or replace any defective workmanship or materials or Work not in conformance with the Contract Documents after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such repair or replacement within the time specified in the notice, the Agency may perform the repair or replacement and the Contractor and the Contractor's sureties shall be liable for the cost thereof. The one (1) year period referenced in this section 6-8.2.2 applies only to the Contractor's obligation to repair or replace defective workmanship or materials or Work not in conformance with the Contract Documents and is not intended to constitute a period of limitations for any other rights or remedies the Agency may have regarding the Contractor's other obligations under the Contract Documents.

6-8.3 No Waiver of Legal Rights. The Agency shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and Acceptance of the Work and payment therefor from showing the true amount and character of the Work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the Work or materials do not in fact conform to the Contract.

The Agency shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or its sureties, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Neither the Acceptance by the Engineer or by its representative, nor any payment for or Acceptance of the whole or any part of the Work, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any portion of the Contract or of any power herein reserved, or of any right to damages.

A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

6-8.4 Landscape Maintenance Period. Final Acceptance of the Contract shall follow the satisfactory completion of all Contract Work, including the landscape maintenance period if one is specified.

6-8.5 Non-complying Work. Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by the Agency, shall constitute an Acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

6-8.6 Written Warranties. The Contractor shall obtain and deliver to the Engineer all written warranties required to be furnished by the Specifications. Each of such warranty shall be underwritten by the Contractor for the full period prescribed therein, and shall bear its endorsement to such effect.

6-9 LIQUIDATED DAMAGES. Failure of the Contractor to complete the Work within the time allowed will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified, as adjusted in accordance with 6-6, for completion of the Work the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of $250, unless otherwise provided in the Contract Documents.

Execution of the Contract under these Specifications shall constitute agreement by the Agency and Contractor that $250 per day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the Work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs.

6-10 USE OF IMPROVEMENT DURING CONSTRUCTION. The Agency reserves the right to take over and utilize all or part of any completed facility or appurtenance. The Contractor will be notified in writing in advance of such action. Such action by the Agency will relieve the Contractor of responsibility for injury or damage to said completed portions of the improvement resulting from use by public traffic or from the action of the elements or from any other cause, except injury or damage resulting from the Contractor's operations or negligence. The Contractor will not be required to reclean such portions of the improvement before field completion, except for cleanup made necessary by its operations. Nothing in this section shall be construed as relieving the Contractor from full responsibility for correcting defective work or materials.

In the event the Agency exercises its right to place into service and utilize all or part of any completed facility or appurtenance, the Agency shall assume the responsibility and liability for injury to persons or property arising out of or resulting from the utilization of the facility or appurtenance so placed into service, except for any willful or negligent act or omission by the Contractor, Subcontractor, their officers, employees or agents.

6-10.1 Use of Improvements - Exceptions. The provisions of 6-10 shall not apply to projects for the repair, modification, enlargement or improvement of existing facilities that are to remain in use during construction except where a portion of the project which is completely independent from the rest of the Work can be completed and put into use by the Agency.

On projects on public roads, after satisfactory completion of an isolated section of the Work involving roadway improvements or repairs, when all temporary signs and other temporary Contractor facilities have been removed, the section is not being used as a detour, the section is no longer under the Contractor's control, and the section is opened to public traffic through the end of the Contract period, that section of the Work shall be taken over by the Agency as provided in 6-10. The Contractor shall indicate to the Engineer in writing when the conditions of this paragraph have been complied with and shall specify the limits of the section involved. Any taking over of the Work by the Agency shall be effective only when formal written notification is issued by the Agency.

6-11 NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION. Procedures for notice of claims in specific situations and circumstances are provided in the following sections:

3-4 ....Changed Conditions
6-6.4 ....Delay and Extensions of Time
6-7.3 ....Contract Time Accounting

Compliance with this section is not prerequisite to assertion of a claim involving those sections or based on differences in measurements or errors of computation as to Contract quantities.

Compliance with the provisions of this section is required in all other situations and circumstances.

It is the intention of this section that differences arising between the parties under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action taken to resolve such differences.

The Contractor shall give the Engineer written notice of a potential claim, setting forth: (1) the reasons for which the Contractor believes additional compensation will or may be due; (2) the nature of the costs involved; and (3) insofar as possible, the amount of the potential claim.

If the claim is based upon an act or failure to act by the Engineer, the said notice must be given to the Engineer prior to the date when the work giving rise to the potential claim is commenced; in all other cases the said notice must be given to the Engineer within 15 Days after the happening of the event, thing or occurrence giving rise to the potential claim.

The Contractor shall not be entitled to the payment of any additional compensation where the written notice of potential claim has not been given to the Engineer in the manner required by and within the time limitations of this section.

6-12 DISPUTES AND CLAIMS; PROCEDURE.

6-12.1 GENERAL. Any and all decisions made on appeal pursuant to this section shall be in writing. Any "decision" purportedly made pursuant to this section which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

Filing or giving the notices required under 3-4, 6-6.4, 6-7.3 and 6-11 is prerequisite to recovery under a Contractor's claim for additional compensation; nothing in this section shall excuse the Contractor from its duty to file or give the required notices, or from performing other duties required by the Contract Documents.

6-12.2 ADMINISTRATIVE REVIEW. Prior to proceeding under 6-12.3 or filing a Complaint in Arbitration, the Contractor shall exhaust its administrative remedies by submitting its claim for review and decision by the following Agency staff in the following sequence:

Project Manager, responsible for the project
Department Director (Public Works Agency), responsible for the project.
Director of the Public Works Agency (the Engineer)

If the Contractor disputes the Project Manager's decision on its claim, the Contractor shall submit the claim to the Department Director. If the Contractor disputes the Department Director's decision on its claim, the Contractor shall submit the claim to the Engineer. Agency staff decisions shall state the portion of the claim that is undisputed if any.

The Project Manager may elect to forward a claim submitted by the Contractor directly to the Department Director. The Project Manager must give the Contractor notice of that election and the Contractor may supplement its claim within 7 Days of such notice (unless the parties agree in writing to a different time) and its claim will be deemed submitted on the earlier of the day it supplements its claim, the day it states in writing that it will not supplement its claim or the day time to supplement expires. The Department Director may forward a claim timely submitted by the Contractor directly to the Engineer instead of making a decision on the claim, in which case no notice or opportunity to supplement the claim is required, and the claim shall be deemed timely submitted to the Engineer.

The Engineer's decision on the claim shall be the Agency's final decision.

Claims submitted to the Department Director and the Engineer shall be submitted in writing and shall include:

a. A copy of the disputed decision.
b. A statement as to why the Contractor believes the decision is in error.
c. All information, argument, documents and evidence (collectively, materials) that the Contractor wishes to have considered in the review. Where the request for review is made to the Engineer, in lieu of resubmitting materials which have already been submitted to the Department Director, the Contractor may include with the request a list of the materials the Contractor wants the Engineer to consider. Any additional materials and evidence not previously submitted to the Department Director shall be included with the request to the Engineer, if the Contractor wishes them to be considered. If relevant evidence is not available at the time the request is made to the Department Director or the Engineer, the Contractor shall identify such evidence and include a statement as to when such evidence will be submitted.

The Project Manager shall issue a decision on a claim within 10 Days of receipt; if the Project Manager does not do so, then the Project manager will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after receipt. The Contractor shall submit a claim to the Department Director for review and decision within 7 Days of receipt of the Project Manager's decision or of the time the Project Manager is deemed to have decided to reject the claim, whichever is applicable. The Department Director shall issue a decision on a claim within 10 Days of the timely submission of the claim; if the Department Director does not do so, then the Department Director will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after timely submission. The Contractor shall submit a claim to the Engineer for review and decision within 7 Days of receipt of the Department Director's decision or of the time the Department Director is deemed to have decided to reject the claim, whichever is applicable. If a claim is timely submitted to the Engineer and the Engineer fails to issue a decision on that claim within the time limits prescribed for issuing a written statement under Public Contract Code, section 9204, subdivision (d)(1), the Engineer shall be deemed to have decided to reject the claim in its entirety. At any time after the Project Manager receives a claim, the Agency and Contractor may agree in writing to different time limits than those set forth in this paragraph.

6-12.3 MEET AND CONFER; MEDIATION If the Contractor disputes the Agency's final decision, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the Agency shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the Agency shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 Days after the Agency issues its written statement. Any disputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the Agency and the Contractor sharing the associated costs equally. The Agency

and Contractor shall agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the Agency and Contractor cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

Failure by the Agency to meet the time requirements of this section shall result in the portion of the claim that remains in dispute being deemed rejected in its entirety.

The parties may agree to waive, in writing, mediation under this section.

6-12.4 ARBITRATION. Claims and disputes arising under or related to the performance of the Contract, for which mediation under 6-12.3 was waived or unsuccessful except for claims which have been released by execution of the "Release on Contract" as provided in 9-4, shall be resolved by arbitration unless the Agency and the Contractor agree in writing, after the claim or dispute has arisen, to waive arbitration and to have the claim or dispute litigated in a court of competent jurisdiction. Arbitration shall be pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2 of the Public Contract Code and the regulations promulgated thereto, Chapter 4 (commencing with Section 1300) of Division 2 of Title 1 of the California Code of Regulations. The arbitration decision shall be decided under and in accordance with California law, supported by substantial evidence and, in writing, contain the basis for the decision, findings of fact, and conclusions of law.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said Chapter 4. A Complaint in Arbitration by the Contractor shall be filed not later than 90 calendar Days after receipt of the final written decision of the Agency on the claim or dispute or within 300 Days after Acceptance of the Work by the Agency if no written decision has been issued. For the purposes of this section, "Acceptance of the Work by the Agency" shall be defined as the date the Notice of Completion is filed.

Where an election is made by either party to use the Simplified Claims Procedure provided under Sections 1340-1346 of said Chapter 4, the parties may mutually agree to waive representation by counsel.

All contracts valued at more than $25,000 between the Contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Agency by all terms and provisions of the Contract, including this arbitration provision.

6-13 CONTRACTOR'S WORK HOURS

6-13.1 Working Hours Limitations. Except as otherwise specified, no work shall be performed by the Contractor at the Work site between the hours of 7:00 p.m. and 7:00 a.m. the following day, nor shall work be performed on Saturdays, Sundays or holidays listed in 6-7.2.1.

6-13.2 Regular Work Schedule. The Contractor shall furnish a work schedule with the Construction Schedule required by 6-1 and inform the Engineer at least two Days in advance of changing the schedule. The schedule shall include the times for starting and ending work on each day. Such starting and ending times shall not be more than 10 1/2 hours apart.

6-13.3 Exceptions. The limitations on working hours and days shall not apply to emergency work made necessary by unusual conditions where such work is necessary to protect the Work, to protect the property of others, to protect life, or to ensure the orderly flow of traffic.

The limitations of this section shall not apply where work at times other than allowed by 6-13.1 and 6-13.2 is necessary in order to make utility connections or is required by other provisions contained in these Specifications in order to perform the work in the manner specified. In these cases, the Contractor shall obtain prior written approval of the Engineer at least two Days in advance of performing the work.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General. The Contractor shall furnish and maintain in good condition all equipment and facilities as required for the proper execution and inspection of the Work.

The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition, and regularly pumped out.

7-1.2 Temporary Utility Services. The Contractor shall, at its own expense, make all arrangements necessary for the provision of temporary utility services necessary for its own use during performance of the Work.

The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water utility owner.

7-1.3 Crushing and Screening Operations. Unless otherwise specified in the Special Provisions, the establishment and operation of portable screens and crushers will not be allowed on or adjacent to the Work site.

7-2 LABOR

7-2.1 General. The Contractor, its agents, and employees shall be bound by and comply with applicable provisions of the Labor Code and Federal, State, and local laws related to labor.

Any worker found by the Engineer to be incompetent, intemperate, troublesome, disorderly, or otherwise objectionable, or who fails to perform the Work properly and acceptably, shall be immediately removed from the Work site by the Contractor and shall not be reemployed in the performance on the Work.

7-2.1.1 Special Qualifications. Where the Engineer determines certain portions of the Work require experience, training, certification or other special qualifications that may not be possessed by the average journeyperson, such portions of the Work will be specifically identified in the Special Provisions and the special qualifications identified.

When work requiring special qualifications is being performed, a person with such qualifications must be in immediate charge of the work. The person may be a lead journeyperson, foreperson or trade superintendent. The general superintendent or a foreperson who is not specifically assigned to the area where the identified work is being performed will not be considered to be in immediate charge of the work.

Written certification of the required qualifications shall be furnished to the Engineer at least one week prior to the time work is commenced on the work requiring such qualifications. Such certification is subject to review and acceptance by the Engineer. If, during performance of work requiring special qualifications, the qualified person becomes temporarily or permanently unavailable to the Contractor, work shall not proceed until a qualified replacement has been accepted by the Engineer. The Engineer will promptly consider the certification of the replacement.

If identified work is performed without a person having the special qualifications in charge, the Engineer may, at its sole discretion, order such work removed and replaced at the Contractor's expense.

If, after certification is accepted, the Engineer finds that the certification was inaccurate, or work on the project indicates a lack of the knowledge and experience to supervise the work, the Engineer may order the work stopped until an acceptable replacement has been certified, accepted and is in charge.

7-2.2 Prevailing Wages. Pursuant to Section 1773.2 of the Labor Code, the current prevailing rate of per diem wages at the time of the Bid as determined by the Director of the Department of Industrial Relations (DIR) are on file at the office of the Engineer. The Contractor shall post a copy of these rates at the Work site. Pursuant to Section 1774 of the Labor Code, the Contractor and any Subcontractors shall pay not less than the specified prevailing rates of wages to workers employed on the Contract. If the Contract is Federally-funded, the Contractor and any Subcontractors shall not pay less than the higher of these rates or the rates determined by the United States Department of Labor. Pursuant to Section 1775 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amounts per calendar day, or portion thereof, for each worker paid less than the prevailing wage rates. The project is subject to the compliance monitoring and enforcement by the California Department of Industrial Relations (DIR). The contractor is responsible for posting job site notices as prescribed by regulation pursuant to Labor Code section 1771.4, subdivision (a)(2). The Contractor and each Subcontractor, if any, must be registered with the DIR pursuant to Labor Code section 1725.5 and section 1771.1. The Contractor and each Subcontractor, if any, must submit certified payrolls to the Labor Commissioner pursuant to Labor Code 1771.4.

7-2.2.1 Apprentices. Apprentices shall be employed on the Work in accordance with Labor Code Section 1777.5. The Contractor is responsible for compliance with Labor Code Section 1777.5 for all apprenticeable occupations whether employed directly or through subcontractors.

7-2.2.2 Contractors' Duties Concerning Labor Code Compliance. As required by Labor Code 1775(b)(1), Labor Code Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 are required to be included in the contract between the Contractor and subcontractors. The Contractor agrees to comply with these sections and all remaining provisions of the Labor Code.

7-2.3 Payroll Records. Pursuant to Section 1776 of the Labor Code the Contractor and each Subcontractor, if any, shall keep, make available, and submit to the Engineer within ten (10) days of receipt of a written request,

certified payroll records. Pursuant to Labor Code section 1776, subsection (h), the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount for each calendar day, or portion thereof, for each worker, the Contractor and each Subcontractor, if any, fails to comply with that subsection until strict compliance is effectuated. The Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 or 1771.6. The contractor shall include the in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, the Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1776,l subsection (h), and this paragraph from payment due to such Subcontractor and remit such penalties withheld to the Agency.

7-2.4 Hours of Labor. Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815.

Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815. Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 and 1771.6. Contractor shall include terms in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1813 and this paragraph from payments due to such Subcontractor and remit such penalties withheld to the Agency

7-3 INDEPENDENCE OF CONTRACTOR, INDEMNIFICATION AND POLLUTION

7-3.1 Independence of Contractor. It is understood and agreed that Contractor is at all times an independent contractor and that no relationship of employer-employee exists between the parties hereto. Contractor will not be entitled to any benefits payable to employees of County, including but not limited to overtime, retirement benefits, workers' compensation benefits, injury leave or other leave benefits. County is not required to make any tax or benefit deductions from the compensation payable to Contractor under the provisions of this Agreement. As an independent contractor, Contractor hereby holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of the Agreement.

If, in the performance of this Agreement, any third persons are employed by Contractor, such persons will be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment, including hours, wages, working conditions, discipline, hiring and discharging or any other terms of employment or requirements of law, will be determined by Contractor. County will have no right or authority over such persons or the terms of such employment, except as provided in this Agreement.

7-3.2 Indemnification and Hold Harmless Clause. All activities arising out of or relating to the performance of the Work covered by this Contract shall be at the risk of Contractor. To the fullest extent permitted by law, Contractor shall defend (at Agency's request), indemnify and hold harmless Agency, and the County of Ventura if the County of Ventura is not the entity defined as Agency under this Contract, including all of their boards, agencies, departments, officers, employees, agents and volunteers (collectively, "Indemnitee"), against any and all claims, suits, actions, legal or administrative proceedings, judgments, debts, demands, damages, including injury or death to any person or persons, and damage to any property including loss of use resulting therefrom, incidental and consequential damages, liabilities, interest, costs, attorneys' fees and expenses of whatsoever kind of nature, whether arising before, during or after commencement or completion of this Contract, whether against Contractor and Indemnitee or which are in any manner, directly, indirectly, in whole or in part, arising from any act, omission, fault or negligence, whether active or passive, of Contractor, a Subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable in connection with or incident to the Contract, even though the same may have resulted from the joint, concurring or contributory negligence, or from the passive negligence, of Indemnitee or any other person or persons, unless the same be caused by the sole negligence of Indemnitee, or except to the extent caused by the active negligence or willful misconduct of Indemnitee.

The Agency will notify the Contractor of the receipt of any third party claims.

7-3.3 Contamination and Pollution. Contractor, solely at its own cost and expense, will provide clean up of any premises, property or natural resources contaminated or polluted due to Contractor activities. Any fines, penalties, punitive or exemplary damages assigned due to contaminating or polluting activities of the Contractor will be borne entirely by the Contractor.

7-4 INSURANCE REQUIREMENTS

Contractor, at its sole cost and expense, shall obtain and maintain in full force during the term of this Contract the following types of insurance:

7-4.1 Workers' Compensation Insurance.

7-4.1.1 Coverage. Workers' Compensation coverage, in full compliance with Labor Code 3700, for all employees of Contractor and Employer's Liability in the minimum amount of $1,000,000. The Agency, the County of Ventura, its officers, employees or Consultants, will not be responsible for any claims in law or equity occasioned by failure of Contractor to comply with this paragraph.

7-4.1.2 Certification. Before execution of the Contract by Agency, Contractor shall file with the Engineer the following signed certification:

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

7-4.2 Commercial General Liability Insurance

7-4.2.1 Minimum Limits and Scope; Insurance Classes. "Occurrence" coverage in the minimum amount of:

Coverage Class	Coverage
L-A	$ 1,000,000 combined single limit (CSL) bodily injury and property damage each occurence and $1,000,000 aggregate
L-B	$ 1,000,000 CSL bodily injury and property damage each occurrence and $2,000,000 aggregate
L-C	$ 5,000,000 CSL bodily injury and property damage each occurrence and $5,000,000 aggregate
L-D	$ 10,000,000 CSL bodily injury and property damage each occurrence and $10,000,000 aggregate

If no coverage class is specified in "Proposal", coverage class L-B shall apply.

If Contractor maintains higher limits than the minimums shown above, the Agency requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Agency.

Coverages shall include premises/operations; products/completed operations; independent contractors; underground, explosion and collapse hazards; personal and advertising injury; broad form property damage; and broad form blanket contractual.

7-4.2.2 Coverage Exceptions. On projects where no explosives will be used and no demolition is involved, the coverage for explosion may be omitted. On projects where no excavation is involved, the coverage for underground hazard may be omitted. The omission of said coverages is at Agency's option, and shall not abrogate Contractor's responsibilities for indemnification as set forth in these Specifications.

7-4.2.3 Excess Liability Policies. All Excess Liability policies, if used, shall be on an "umbrella" or following form of the primary layer of coverage.

7-4.3 Commercial Automobile Liability Insurance

Coverage in the minimum amount of $1,000,000 CSL bodily injury and property damage, including automobile liability, any auto.

7-4.4 Property Insurance

Contractor shall arrange for its own "Course of Construction" insurance on the project to protect its interests, as Agency does not have this coverage.

Contractor is responsible for delivering to Agency Work completed in accordance with the Contract except as provided in 7-18 (Acts of God). Should the Work being constructed be damaged by fire or other causes during construction, it shall be replaced by Contractor in accordance with the requirements of the Plans and Specifications without additional expense to Agency.

7-4.5 Other Insurance Provisions.

7-4.5.1 Insurance Company Qualifications. All insurance required shall be issued by (a) an admitted company or admitted companies authorized to transact business in the State of California which have a BEST rating of B+ or higher and a Financial Size Category (FSC) of VII or larger or (b) a California approved Surplus Line carrier or carriers which have a BEST rating of A or higher and a Financial Size Category (FSC) of VII or larger.

Workers compensation insurance not meeting the above requirements but meeting all other requirements of the specifications, will be accepted.

7-4.5.2 Primary Coverage. All insurance required shall be primary coverage as respects Agency and any insurance or self-insurance maintained by Agency or the County of Ventura shall be in excess of Contractor's insurance coverage and shall not contribute to it.

7-4.5.3 Aggregate Limits Exceeded. Agency shall not be notified immediately if any aggregate insurance limit is exceeded. Contractor shall purchase additional coverage to meet requirements.

7-4.5.4 Liability in Excess of Limits. Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor for liability in excess of such coverage, nor shall it preclude Agency or the County of Ventura from taking such other actions as is available to it under any other provisions of this Contract or otherwise in law.

7-4.5.5 Additional Insured Endorsements. The Agency, the County of Ventura (if not defined as Agency) and all special Districts governed by the County of Ventura Board of Supervisors, and their officials, employees, and volunteers shall be named as Additional Insured as respects Work done by or on behalf of Contractor under the Contract on all policies required (except workers' compensation). With respect to Contractor's commercial general Liability insurance, Additional Insured coverage shall include both ongoing and completed operations.

7-4.5.6 Waiver of Subrogation Rights. Contractor agrees to waive all rights of subrogation against the Agency, the County of Ventura, including its boards, and all special Districts governed by the Board of Supervisors, for losses arising directly or indirectly from the activities or Work performed by Contractor under the Contract (applies only to Workers' Compensation and Commercial General Liability).

7-4.5.7 Cancellation Notice Required. In the case of policy cancellation, Agency shall be notified by the insurance company or companies as provided for in the policy. Contractor shall notify Agency of any and all policy cancellations within three working days of the cancellation.

7-4.5.8 Documentation Required. Prior to execution of the Contract by Agency, Contractor shall provide Agency with Certificates of Insurance for all required coverages (see Appendix A for example), all required endorsement(s) and a copy of its course of insurance policy.

It is the responsibility of Contractor to confirm that all terms and conditions of Section 7-4 Insurance Requirements are complied with by any and all subcontractors that Contractor may use in the completion of the Contract.

7-5 PERMITS. The Agency will obtain, at no cost to the Contractor, all encroachment and building permits necessary to perform Contract Work in streets, highways, railways or other rights of way, unless the necessity for such permit(s) is created by a method of operation chosen by the Contractor. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to, those permits required for night Work, overload, blasting and demolition.

The Contractor shall pay all business taxes or license fees that are required for the Work.

7-5.1 Highway and Railroad Permits. The Engineer will obtain the basic State highway and railroad encroachment permits which will include checking of plans. However, the Contractor must also obtain permits from these agencies. Inspection fees charged by these agencies must be paid by the Contractor.

7-5.2 Grading Ordinance

7-5.2.1 General. All excavation, filling and grading operations in Ventura County are governed by the Ventura County Grading Ordinance or City Ordinances, except within the project right of way shown on the Plans.

7-5.2.2 Permits Required. Work outside the project right of way which involves excavation or filling of soils is subject to all requirements of the applicable grading ordinance. The requirements may include, but are not limited to, submitting of a grading plan prepared by a Civil Engineer, obtaining a grading permit, paying the permit fee, posting a grading bond, hiring professionals for engineering and testing services, compacting fills, constructing drainage facilities and providing erosion protection.

7-5.2.3 Imported and Exported Material. To insure that neither the Agency nor the Contractor is a party to aiding or abetting any property owner (who is ultimately responsible) to violate the applicable grading ordinance, no material shall be imported from or exported or wasted outside the project right of way until the Contractor has furnished the Engineer a copy of the grading permit covering such operation on land where material is to be deposited or excavated, unless exempt.

7-5.2.4 Exemptions from Permit. No grading permit is required of the Contractor for Work performed within the project right of way shown on the Plans or on borrow or disposal areas shown on the Plans or described in the Special Provisions and which are specifically designated as being exempt from such permit requirements.

7-5.3 Building Permit.

7-5.3.1 Agency Furnished Permits. Except as provided in **7-5.3.2**, Agency will submit the plans for the Work to Department of Building and Safety, and other building related permit issuing agencies, for plan check and make the corrections necessary for the issuance of building and related permits. Agency will Pay plan check and permit fees for the Work. The Contractor may be required to furnish information to the permit issuing agencies, as required for the issuance of permits, and sign the permit.

7-5.3.2 Contractor Furnished Permits. Components or systems, required by the Contract, may require the preparation of plans and calculations to obtain approvals or permits from state or local building, fire prevention, public health, safety, environmental protection and other agencies in addition to the basic permits arranged for by the Agency as provided in **7-5.3.1**. Contractor shall take all actions in a timely manner to obtain such approvals or permits so as not to delay completion of the Work beyond the time provided in **6-7**. Contractor shall include all costs and consider the time required to obtain approvals or permits in the Contract price bid.

7-5.4 Coastal Zone Permits

7-5.4.1 Agency Furnished Permits. Permits required for Work on the project within rights of way furnished by the Agency within the Coastal Zone will be obtained by the Agency.

7-5.4.2 Contractor Furnished Permits. Permits required for the Contractor's operations outside of rights of way furnished by the Agency must be obtained by the Contractor. Such permits are required for brush removal, grading, dredging, disposal of material and many other operations within the Coastal Zone.

7-6 THE CONTRACTOR'S REPRESENTATIVE. Before starting work, the Contractor shall designate in writing a representative who shall have complete authority to act for it. An alternative representative may be designated as well. The representative or alternate shall be present at the Work site whenever work is in progress or whenever actions of the elements necessitate its presence to take measures necessary to protect the Work, persons, or property. Any order or communication given to this representative shall be deemed delivered to the Contractor. A joint venture shall designate only one representative and alternate. In the absence of the Contractor or its representative, instructions or directions may be given by the Engineer to the superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

In order to communicate with the Agency, the Contractor's representative, superintendent, or person in charge of specific work shall be able to speak, read, and write the English language.

7-7 COOPERATION AND COLLATERAL WORK. The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The Agency, its workers and contractors and others, shall have the right to operate within or adjacent to the Work site during the performance of such work.

The Agency, the Contractor, and each of such workers, contractors and others, shall coordinate their operations and cooperate to minimize interference.

The Contractor shall include in its Bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the Agency for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall redeploy its work force to other parts of the Work.

Should the Contractor be delayed by the Agency, and such delay could not have been reasonably foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the effect on the Work, and any extension of time.

7-8 WORK SITE MAINTENANCE

7-8.1 General Throughout all phases of construction, including suspension of the Work, and until acceptance per 6-8, the Contractor shall keep the Work site clean and free from rubbish and debris. Rubbish and debris collected on the Work site shall only be stored in roll-off, enclosed containers prior to disposal. Stockpiles of such will not be allowed.

When required by the Special Provisions, the Contractor shall provide a self-loading motorized street sweeper equipped with a functional water spray system. The sweeper shall clean all paved areas within the Work site and all paved haul routes at least once each working day.

The Contractor shall ensure there is no spillage along haul routes. Any such spillage shall be removed immediately and the area cleaned.

Should the Contractor fail to keep the Work site free from rubbish and debris, the Engineer may suspend the Work per 6-3 until the condition is corrected.

7-8.2 Air Pollution Control The Contractor shall not discharge smoke, dust, equipment exhaust, or any other air contaminants into the atmosphere in such quantity as will violate any Federal, State, or local regulations.

The Contractor shall also abate dust nuisance by cleaning, sweeping and spraying with water, or other means as necessary. The use of water shall conform to 7-8.6.

7-8.3 Noise Control. Noise generated from the Contractor's operations shall be controlled as specified in the Special Provisions.

7-8.4 Storage of Equipment and Materials.

7-8.4.1 General Materials and equipment shall be removed from the Work site as soon as they are no longer necessary. Before inspection by the Engineer for acceptance, the Work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance.

Excess excavated material shall be removed from the Work site immediately unless otherwise specified in the Special Provisions.

Forms and form lumber shall be removed from the Work site as soon as practicable after stripping.

7-8.4.2 Storage in Public Streets. Construction materials and equipment shall not be stored in streets, roads, or highways for more than 5 days after unloading unless otherwise specified in the Special Provisions or approved by the Engineer. All materials or equipment not installed or used in construction within 5 days after unloading shall be stored at a location approved by the Engineer.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise specified in the Special Provisions or approved by the Engineer. Immediately after placing backfill, all excess material shall be removed from the Work site.

7-8.5 Sanitary Sewers.

7-8.5.1 General. The flow of sewage shall not be interrupted. Should the Contractor disrupt the operation of existing sanitary sewer facilities, or should disruption be necessary for performance of the Work, the Contractor shall bypass the sewage flow around the Work. Sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches nor be covered by backfill.

Whenever sewage bypass and pumping is required by the Plans or Specifications, or the Contractor so elects to perform, the Contractor shall submit per 2-5.3 a working drawing conforming to 7-8.5.2 detailing its proposed plan of sewage bypass and pumping.

7-8.5.2 Sewage Bypass and Pumping Plan. The plan shall indicate the locations and capacities of all pumps, sumps, suction and discharge lines. Equipment and piping shall be sized to handle the peak flow of the section of sewer line to be bypassed and pumped. Equipment and piping shall conform to 7-10, the Plans, and the Special Provisions. Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and

discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay flat hose will not be allowed to extend into manholes. The Contractor shall provide a backup bypass pumping system in case of malfunction. The backup bypass system shall provide 100 percent standby capability, and be in place and ready for immediate use.

Each standby pump shall be a complete unit with its own suction and discharge piping. In addition to the backup system, the Contractor shall furnish and operate vacuum trucks when required by the Plans or Special Provisions.

7-8.5.3 Spill Prevention and Emergency Response Plan. The Contractor shall prepare and submit per 2-5.3 a spill prevention and emergency response plan. The plan shall address implementation of measures to prevent sewage spills, procedures for spill control and containment, notifications, emergency response, cleanup, and spill and damage reporting.

The plan shall account for all storm drain systems and water courses within the vicinity of the Work which could be affected by a sewage spill. Catch basins that could receive spilled sewage shall be identified Unless otherwise specified in the Special Provisions, these catch basins shall be sealed prior to operating the bypass and pumping system. The Contractor shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

The Contractor shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spill imposed upon by the Agency and/or the Contractor by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.

7-8.6 Water Pollution Control The Contractor shall prevent, control, and abate discharges of pollutants from the construction site in order to protect the storm drain system, which includes pipes, channels, streams, waterways, and other bodies of water, by the construction, installation or performance of water pollution control measures as shown on the Stormwater Pollution Control Plan (SWPCP) or Stormwater Pollution Prevention Plan (SWPPP) depending on the land area affected by the construction activity. The Contractor shall ensure compliance with the current State NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Construction Permit), NPDES No. CAS000002 and current Ventura County NPDES Municipal Separate Storm Sewer System (MS4) Permit No. CAS004002.

7-8.6.1 Compliance with NPDES General Construction Permit

7-8.6.1.1 Construction Sites

If the Work involves construction activity that results in soil disturbance of one acre or more of total land area, or results in soil disturbances of less than one acre but is a part of a work area larger than one acre, the Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. Construction activity does not include routine maintenance such as, maintenance of original line and grade, hydraulic capacity, or original purpose of the facility.

The Contractor shall comply with requirements of the General Construction Permit (NPDES No. CAS000002), obtained by the Agency, including a site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Work to be developed by Qualified SWPPP Developer (QSD) and implemented by the Qualified SWPPP Practitioner (QSP). After July 1, 2010, the Agency will electronically file all required Permit Registration Documents (PRDs) through the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website, as required prior to the commencement of construction activity. PRDs consist of the Notice of Intent (NOI), Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the Legally Responsible Party (LRP), and the first annual fee. For the Permit application, the Contractor shall submit to Project Manager the following:

- The completed site-specific Risk Assessment
- Post-construction calculations if applicable for the project, and
- Site-specific SWPPP developed in accordance with applicable Permits.

7-8.6.1.2 Linear Utility Projects; Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002 for Linear Underground/Overhead projects (LUPs) one acre or greater.

7-8.6.2 Compliance with NPDES MS4 Permit

7-8.6.2.1 Construction Sites Less Than One Acre The Contractor shall ensure implementation of an effective combination of erosion and sediment control Best Management Practices (BMPs) listed in **Table 6** of the Ventura County NPDES MS4 Permit. The Contractor shall develop and implement a Storm Water Pollution Control Plan (SWPCP).

7-8.6.2.2 Construction Sites One Acre but Less Than 5 Acres The Contractor shall ensure implementation of an effective combination of appropriate erosion and sediment control BMPs from **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) of the Ventura County NPDES MS4 Permit in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.3 Construction Sites 5 Acres and Greater The Contractor shall ensure implementation of an effective combination of the following BMPs in **Tables 8** (BMPs at Construction sites 5 acres or greater) in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) and **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) at all construction sites 5 acres and greater to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.4 Enhanced Construction BMP Implementation

Construction sites located on hillsides, adjacent or directly discharging to CWA 303(d) listed waters for siltation or sediment, and directly adjacent to Environmentally Sensitive Areas are termed "high risk sites." Contractor shall implement enhanced practices that preclude impacts to water quality posed by the high risk sites.

Contractor shall ensure that high risk sites are inspected by the Qualified SWPPP Developer, Qualified SWPPP Practitioner, or Certified Professionals in Erosion and Sediment Control (CPESC) at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site, to identify BMPs that need maintenance to operate effectively, that have failed or could fail to operate as intended.

During the wet season, the area of disturbance shall be limited to the area that can be controlled with an effective combination of erosion and sediment control BMPs. Enhanced sediment controls should be used in combination with erosion controls and should target portions of the site that cannot be effectively controlled by standard erosion controls described above. Effective sediment and erosion control BMPs proposed by the Contractor shall include the BMPs listed in Table 9 (Enhanced Construction BMP Implementation) of the NPDES MS4 Permit. The Contractor shall implement the BMPs listed in Table 9 unless shown unnecessary. Also, the Contractor shall retain records of the inspection and a determination and rationale of the BMPs selected to control runoff.

7-8.6.3 Plan.

7-8.6.3.1 The SWPCP, required for construction projects less than one acre, shall be prepared in accordance with the requirements of current Ventura County NPDES MS4 Permit No. CAS004002 and County Ordinance No. 4142.

7-8.6.3.2 The SWPPP, required for construction projects one acre or greater, shall be prepared in accordance with the requirements of the state's General Construction Permit NPDES Permit CAS000002, Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002, and County Ordinance No. 4142.

7-8.6.3.3 The SWPCP/SWPPP shall identify potential pollutant sources on the construction site that may affect the quality of discharges, whether non-stormwater or stormwater, from the site and design the use and placement of water pollution control measures, BMPs, to effectively prohibit the entry of pollutants from the site into the storm drain system during construction. At a minimum, and depending on the size of the project area, the SWPCP/SWPPP will include all appropriate minimum BMPs as required by the Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002 (Tables 6 through 9). The SWPCP/SWPPP must utilize the measures recommended in the California Stormwater Quality Association (CASQA) Stormwater BMPs Handbook for Construction (January 2003 version until July 1, 2010 and 2009 version after July 1, 2010). Starting July 1, 2010 SWPPP shall be prepared by QSD as defined in the NPDES Permit CAS000002. The Contractor shall complete, sign and submit the SWPCP/SWPPP for review and final approval by the Project Engineer, prior to issuance of the Notice to Proceed as provided in 6-7.4.

7-8.6.3.4 For all construction projects one acre and greater, the Contractor shall submit the SWPPP to the Agency for review and certification as Local SWPPP in accordance with NPDES MS4 Permit No. CAS004002 prior to the Notice to Proceed as provided in 6-7.4.

7-8.6.4 Measures. All water pollution control measures shall conform to the requirements of the submitted SWPCP/SWPPP. If circumstances during the course of construction require changes to the original SWPCP/SWPPP, a revised SWPCP/SWPPP shall be promptly submitted to the Project Manager in each instance. The SWPPP shall be amended or revised by QSD. A copy of the current SWPCP/SWPPP including revisions and amendments shall be kept at the site to ensure that field personnel has access to the current document at all times. If measures being taken are inadequate to control water pollution effectively, the Project Manager may direct the Contractor to revise the operations and no further work shall be performed until adequate water pollution control measures are implemented. Effective September 2, 2011, implementation of the SWPPP shall be overseen by the Contractor's QSP as defined in the General Construction Permit NPDES No. CAS000002. All work installed by the Contractor in connection with the SWPCP/SWPPP but not specified to become a permanent part of the Work shall be removed and the site restored in so far as practical to its original condition prior to completion of the Work.

7-8.6.4.1 Post-Construction Standards; Contractor shall ensure that applicable post-construction standards are implemented to meet applicable project requirements of the Ventura County NPDES MS4 Permit and General Construction Permit NPDES No. CAS000002 (effective September 2, 2012).

7-8.6.4.2 Active Treatment Systems; Contractor shall comply with requirements of the General Construction Permit NPDES No. CAS000002 for active treatment systems as applicable.

7-8.6.5 Monitoring and Reporting

7-8.6.5.1 Monitoring; In accordance with the General Construction Permit NPDES No. CAS000002, the Contractor shall develop and implement monitoring program for Risk Level 2 and 3 sites. In addition at Risk Level 3 sites, contractor shall perform receiving water monitoring to meet Permit requirements.

7-8.6.5.2 Reporting; the Contractor shall ensure that all submittals and reports are prepared and submitted to the RWQCB in accordance with the applicable Permits. At minimum the reports will include Annual Report (for applicable projects due September 1st), Rain Event Action Plan (due 48 hrs prior to the rain event for the applicable projects), Numeric Action Levels (NAL) Exceedance Report (as required), Numeric Effluent Limitations (NELs) Violation Report (within 24 hours after NEL exceedance is identified). Contractor shall submit required reports to the Project Manager for review and approval prior to submittal to the RWQCB.

7-8.6.6 Dewatering Activities. All dewatering activities shall be performed in accordance with applicable regulatory requirements issued by the Los Angeles Regional Water Quality Control Board, including specific requirements contained in the Waste Discharge Requirements (WDR) when issued for the Work.

7-8.6.7 Payment. The Contract lump sum price for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in water pollution control as specified herein. Payment for water pollution control will be made as the Work proceeds, and is in compliance with the approved Water Pollution Control Plan, on the following basis.

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of water pollution control pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of water pollution control pay item	Percentage of the original Contract total.
5	10	10	1
10	20	20	2
20	50	50	3
50	Completion of Work	75	5
Completion of Work		100	

Where no Bid item is provided for water pollution control, payment for water pollution control shall be considered to be included in the other Bid items.

7-8.7 Drainage Control. The Contractor shall maintain drainage within and through the Work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the site as soon as their use is no longer necessary.

7-8.8 Final Cleaning. At the completion of the Work, the Contractor shall remove all waste materials and rubbish from and about the project, as well as all tools, construction equipment, temporary facilities, machinery, and surplus materials.

At completion of construction and just prior to final inspection, the Contractor shall thoroughly clean the interior and exterior of the buildings, including hardware, floors, roofs, sills, ledges, glass, or other surfaces where debris, plaster, paint, spots, and dirt or dust may have collected. All glass shall be washed clean and polished. Remove all grease, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces. Repair, patch, and touch up marred surfaces to match adjacent finishes.

The Contractor shall use only experienced workmen or professional cleaners for final cleaning. It shall use only cleaning materials recommended by the manufacturer of the surface to be cleaned, and use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

It shall broom-clean all paved surfaces and rake-clean other surfaces of grounds.

The Contractor shall replace air conditioning filters if units were operated during construction, and clean all ducts, blowers, and coils if air conditioning units were operated without filters during construction.

After cleaning, the Contractor shall maintain the building in a clean condition until it is accepted by the Agency.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the right-of-way which are not designated for removal (e.g., curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavement, structures, etc.) which are damaged or removed as a result of its operations. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Maintenance of street and traffic signal systems that are damaged, temporarily removed or relocated shall be done in conformance with 307-1.5.

Trees, lawns, and shrubbery that are not designated to be removed shall be protected from damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers and other improvements which are designated for removal and would be destroyed because of the Work.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be absorbed in its bid.

In existing buildings, all surfaces, equipment, furniture and other property shall be protected from loss or damage by or as result of the Contractor's operations. The Contractor shall replace damaged property or shall repair and restore it to its previous condition. Patching, painting, replacement of wall, ceiling and floor covering and similar Work shall be done in such a manner that the repaired Work will not be readily noticeable.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Access.

7-10.1.1 General. The Contractor's operations shall cause no unnecessary inconvenience to the public or businesses in the vicinity of the Work. The Contractor shall have no greater length or quantity of Work under construction than can be properly prosecuted with a minimum of inconvenience to the public and other contractors engaged in adjacent or related work.

The Contractor shall provide continuous and unobstructed access to the adjacent properties unless otherwise specified in the Special Provisions or approved by Engineer. Work requiring traffic lane closures shall only be performed between the hours specified in the Special Provisions or shown on the TCP. Traffic shall be permitted to pass through the Work site, unless otherwise specified in the Special Provisions or shown on the TCP.

7-10.1.1.1 Vehicular Access. Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. If backfill has been completed to the extent that safe access may be provided and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access.

7-10.1.1.2 Pedestrian Access. Safe, adequate, and ADA compliant pedestrian access shall be maintained unless otherwise approved by the Engineer. 7-10.2 Work Area Traffic Control.

7-10.2 Traffic Control

7-10.2.1 General. Work area traffic control shall conform to the California MUTCD, WATCH, or as specified in the Special Provisions. The total length of the traffic control zone shall include a buffer space, advance signing, striping transitions in advance of the Work site, existing striping, signing, and raised medians.

7-10.2.2 Traffic Control Plan.

7-10.2.2.1 General. If so specified in the Special Provisions or on the permit, the Contractor shall submit a TCP in accordance with 2-5.3. The sheets of the TCP shall display the title, phase identification, name of the firm preparing the TCP, name and stamp of the Registered Traffic or Civil Engineer, approval block for each jurisdictional agency, north arrow, sheet number, and number of sheets comprising the TCP. General notes and symbol definitions shall be included when required. Adequate dimensioning shall be provided to allow for proper field installation. The TCP shall be drawn to a 1 inch = 40 feet scale on common size sheets, either 8-1/2 inches x 11 inches, 8-112 inches x 14 inches, 11 inches x 17 inches, or 2-foot x 3-foot plan sheets as dictated by the length of the Work.

The requirements in the Special Provisions shall govern the design of the proposed TCP.

7-10.2.2.2 Payment. Payment for preparation of the TCP shall be included in the appropriate lump sum Bid items. If no Bid items have been provided, payment shall be included in the various Bid items unless otherwise specified in the Special Provisions.

7-10.3 Haul Routes. Unless otherwise specified in the Special Provisions, the haul route(s) shall be determined by the Contractor.

7-10.4 Safety.

7-10.4.1 Work Site Safety.

7-10.4.1.1 General. The Contractor shall provide safety measures as necessary to protect the public and workers within, or in the vicinity of, the Work site. The Contractor shall ensure that its operations will not create safety hazards. The Contractor shall provide safety equipment, material, and assistance to Agency personnel so that they may properly inspect all phases of the Work. When asbestos is being removed, the requirements of the CCR Title 8, Div. 1, Chapter 4, Subchapter 4 and Subchapter 7 shall be implemented.

7-10.4.1.2 Work Site Safety Official. The Contractor shall designate in writing a "Project Safety Official" who shall be at the Work site at all times, and who shall be thoroughly familiar with the Contractor's Injury and Illness Prevention Program (IIPP) and Code of Safe Practices (CSP). The Project Safety Official shall be available at all times to abate any potential safety hazards and shall have the authority and responsibility to shut down an unsafe operation, if necessary.

7-10.4.2 Safety Orders.

7-10.4.2.1 General. The Contractor shall have at the Work site, copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders, and General Industry Safety Orders issued by the State Division of Industrial Safety. Prior to beginning any excavation 5 feet in depth or greater, the Contractor shall submit to the Engineer, the name of the "Competent Person" as defined in CCR, Title 8, Section 1504, in accordance with 2-5.3. The "Competent Person" shall be present at the Work site as required by Cal-OSHA.

7-10.4.2.2 Shoring Plan. Before excavating any trench 5 feet (105m) or more in depth, the Contractor shall submit in accordance with 2-5.3 a detailed working drawing (shoring plan) showing the design of the shoring, bracing, sloping, or other provisions used for the workers' protection. If the shoring plan varies from the shoring system standards, the shoring plan shall be prepared by a registered Structural or Civil Engineer. The shoring plan shall accommodate existing underground utilities. No excavation shall start until the Engineer has accepted the shoring plan and the Contractor has obtained a permit from the State Division of Industrial Safety. A copy of the permit shall be submitted to the Engineer in accordance with 2-5.3. If the Contractor fails to submit a shoring plan or fails to comply with an accepted shoring plan, the Contractor shall suspend work at the affected location(s) when directed to do so by the Engineer. Such a directive shall not be the basis of a claim for Extra Work and the Contractor shall not receive additional compensation or Contract time due to the suspension.

7-10.4.2.3 Payment. Payment for shoring shall be included in the Bid item provided therefor. Payment for compliance with the provisions of the safety orders and all other laws, ordinances, and regulations shall be included in the various Bid items.

7-10.4.3 Use of Explosives. Explosives may be used only when authorized in writing by the Engineer, or as otherwise specified in the Special Provisions.

Explosives shall be handled, used, and stored in accordance with all applicable regulations.

Prior to blasting, the Contactor shall comply with the following requirements:

a) The jurisdictional law enforcement agency shall be notified 24 hours in advance of blasting.

b) The jurisdictional fire department shall be notified 24 hours in advance of blasting.

c) Blasting activities and schedule milestones shall be included in the Contractor's construction schedule per 6-1.

For a Private Contract, specific permission shall be obtained from the Agency in writing, prior to any blasting operations in addition to the above requirements.

The Engineer's approval of the use of explosives shall not relieve the Contractor from liability for claims caused by blasting operations.

7-10.4.4 Hazardous Substances. An MSDS as described in CCR, Title 8, Section 5194, shall be maintained at the Work site for all hazardous material used by the Contractor. Material usage shall be accomplished with strict adherence to California Division of Industrial Safety requirements and all manufacturer warnings and application instructions listed on the MSDS and on the product container label. The Contractor shall notify the Engineer if a specified product cannot be used under safe conditions. 7-10.4.5 Confined Spaces. 7-10.4.5.1 Confined Space Entry Program (CSEP). The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

a) Training of personnel

b) Purging and cleaning the space of materials and residue

c) Potential isolation and control of energy and material inflow

d) Controlled access to the space

e) Atmospheric testing of the space

f) Ventilation of the space

g) Special hazards consideration

h) Personal protective equipment

i) Rescue plan provisions

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5 Confined Spaces.

7-10.4.5.1 Confined Space Entry Program (CSEP). The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

a) Training of personnel.

b) Purging and cleaning the space of materials and residue.

c) Potential isolation and control of energy and material inflow.

d) Controlled access to the space.

e) Atmospheric testing of the space.

f) Ventilation of the space.

g) Special hazards consideration.

h) Personal protective equipment.

i) Rescue plan provisions.

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5.2 Permit-Required Confined Spaces. Entry into permit-required confined spaces as defined in CCR, Title 8, Section 5157 may be required as a part of the Work. Manholes, tanks, vaults, pipelines, excavations, or other enclosed or partially enclosed spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The Contractor shall implement a permit-required CSEP prior to performing any work in a permit-required confined space. A copy of the permit shall be available at all times for review by the Contractor and the Engineer at the Work site.

7-10.4.5.3 Payment. Payment for the CSEP shall be included in the Bid items for which the CSEP is required.

7-10.5 Security and Protective Devices.

7-10.5.1 General. Security and protective devices shall consist of fencing, steel plates, or other devices as specified in the Special Provisions to protect open excavations

7-10.5.2 Security Fencing. The Contractor shall completely fence open excavations. Security fencing shall conform to 304-3.5. Security fencing shall remain in place unless workers are present and construction operations are in progress during which time the Contractor shall provide equivalent security..

7-10.5.3 Steel Plate Covers. The Contractor shall provide steel plate covers as necessary to protect from accidental entry into openings, trenches, and excavations.

7-11 PATENT FEES OR ROYALTIES. The Contractor shall absorb in its Bid, the patent fees or royalties on any patented article or process which may be furnished or used in the Work. The Contractor shall indemnify and hold the Agency harmless from any legal action that may be brought for infringement of patents.

7-12 ADVERTISING. The names of contractors, subcontractors, architects, or engineers, with their addresses and the designation of their particular specialties, may be displayed on removable signs. The size and location of such signs shall be subject to the Engineer's approval.

Commercial advertising matter shall not be attached or painted on the surfaces of buildings, fences, canopies, or barricades.

7-13 LAWS TO BE OBSERVED. The Contractor shall keep fully informed of State and National laws and County and Municipal ordinances and regulations which in any manner affect those employed in the Work or the materials used in the Work or in any way affect the conduct of the Work. It shall at all times observe and comply with all such laws, ordinances and regulations.

7-13.1 Mined Materials. Mined material from California surface mines, used on the Work, shall be from a mine identified in the list published by the California Department of Conservation (referred to as 3098 List), as required by Public Contract Code 20676. This list is available on the Internet at www.conservation.ca.gov/OMR/ab_3098_list/index.htm.

7-14 ANTITRUST CLAIMS. Section 7103.5 of the Public Contract Code provides:

> "In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body 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. Sec. 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 subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgement by the parties."

7-15 RECYCLABLE CONSTRUCTION & DEMOLITION WASTES. Ventura County Ordinance Code Section, 4421 et seq, requires that if any recyclable solid wastes or marketable reusable materials will be generated on the site of the Work within the unincorporated areas of Ventura County, the Contractor shall prepare a Construction & Demolition Debris Waste Diversion Plan and submit it to the Ventura County Public Works Agency, Water & Sanitation Department - Integrated Waste Management Division (IWMD). The Contractor shall prepare and file Construction & Demolition Debris Waste Diversion Reporting Forms as required by the IWMD.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form B-Recycling Plan approved by IWMD prior to issuance of the Notice to Proceed as provided in 6-7.4.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form C-Reporting Form approved by IWMD prior to the Engineer preparing the final estimate as provided in 9-3.2.

If the site of the Work is within an incorporated city, the Contractor shall comply with all the recycling, solid waste diversion, and hauling requirements of that incorporated city.

7-16 BLANK

7-17 LOSS OR DAMAGE TO THE WORK. The Contractor is responsible for delivering to the Agency Work completed in accordance with the Contract except as provided in 7-18. Should the Work being constructed be damaged by fire or other causes before Acceptance by the Agency, it shall be replaced in accordance with the requirements of the Plans and Specifications without additional expense to the Agency. The Agency does not carry "Course of Construction" insurance on the Work. Contractor should arrange for its own insurance to protect its interests.

7-18 ACTS OF GOD. As provided in Section 7105 of the California Public Contract Code, the Contractor shall not be responsible for the cost of repairing or restoring damaged portions of the Work determined to have been proximately caused by an act of God in excess of 5 percent of the contracted amount, provided that the Work damaged was built in accordance with accepted and applicable building standards and the Specifications and Drawings. The Contractor shall obtain insurance to indemnify the Agency for any damage to the Work caused by an act of God if the premium of said insurance coverage is called for as a separate bid item in the bidding schedule for the Work. For purposes of this section, the term "acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale, and tidal waves.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL. A field office shall be provided when required by the Plans or Special Provisions. The field office shall be at a suitable location approved by the Engineer.

A field office shall be a weather-tight building of suitable proportions with 16 m^2 (120 sq. ft.) of floor area, at least one door, and a window area of 2 m^2 (22 Sq. Ft.). A field office may be a building or a separate room in a building the Contractor may be required to provide or that it may desire to provide for its own use. In either case, the room shall have a separate exterior door. All doors shall be provided with hasps for padlocks.

The office shall be convenient to the Work. It shall be adequately heated, ventilated, electrically lighted, and provided with telephone service, all at the expense of the Contractor or plant owner. Offices are for the exclusive use of Agency personnel, unless otherwise provided herein.

Field offices at the worksite shall be removed upon completion of the Work.

All costs incurred in furnishing, maintaining, servicing, and removing a field office required at the Work site shall be included in the price bid for such item. If such item is required by the Plans or Specifications and no bid item is provided in the Proposal, the costs shall be absorbed in the other items for which bids are entered. Buildings and equipment furnished by the Contractor at the Work site under the provisions of this section are the property of the Contractor.

The first progress payment will not be approved until all facilities are in place and fully comply with the Specifications.

8-2 EQUIPMENT FOR FIELD OFFICES. Unless otherwise specified, a field office shall be equipped with:

Plan table, 0.75 m x 1.5 m (2 1/2 ft. x 5 ft.) or larger
Plan rack, capacity to hold two sets of project Plans plus all shop drawings
Desk and chair
Two lockers with hasps for padlocks

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK

9-1.1 General. Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe, piling, fencing, and timber shall be considered as being the true length measured along longitudinal axis.

Unless otherwise provided in Specifications, volumetric quantities shall be the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension. The planimeter shall be considered an instrument of precision adapted to measurement of all areas.

9-1.2 Methods of Measurement. Materials and items of Work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections involved.

9-1.3 Certified Weights. When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing actual net weights. The Agency will accept the certificate as evidence of weights delivered.

9-1.4 Units of Measurement. Measurements shall be in accordance with 1-4.1 and 1-4.2. A metric ton or “tonne” is equal to 1000 kilograms and the unit of liquid measure is a Liter (in U.S. Standard Measures, a pound is an avoirdupois pound; a ton is 2000 pounds avoirdupois; and the unit of liquid measure is a gallon).

9-2 LUMP SUM BID ITEMS. Items for which quantities are indicated as "Lump Sum", "L.S." or "Job" shall be paid for at the price indicated in the Proposal. Such payment shall be full compensation for the items of Work and all Work appurtenant thereto.

When required by the Specifications or requested by the Engineer, the Contractor shall submit to the Engineer within 15 Days after award of Contract, a detailed schedule in triplicate, to be used only as a basis for determining progress payments on a lump sum contract or any designated lump sum bid item. This schedule should equal in total the lump sum bid and shall be in such form and sufficiently detailed as to satisfy the Engineer that it correctly represents a reasonable apportionment of the lump sum. If Mobilization or Water Pollution Control are included in the detailed schedule, those items will be paid for as provided in 9-3.4.2 and 7-8.6.4, receptively.

9-3 PAYMENT

9-3.1 General. The quantities listed in the Bid schedule will not govern final payment unless identified by Agency on the Proposal as [F]. The symbol "[F]" indicates that the quantities shown on the Proposal form are the final pay quantities. Payment to the Contractor (except those items identified as [F]) will be made only for the actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given in the Bid schedule, the Contract Unit Prices will prevail subject to the provisions of 3-2.2.1. Payment for those items identified as [F] will be based on the quantities shown on the Proposal unless changed as provided in 3-2.2.1.

The unit and lump sum prices to be paid shall be full compensation for the items of work and all appurtenant work, including furnishing all materials, labor, equipment, tools and incidentals.

Payment for items shown on the Plans or required by the Specifications, for which no pay item is provided, shall be considered included in the prices named for the other items shown on the Proposal.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed and material placed outside of the Plan lines. No compensation will be allowed for disposing of rejected or excess material.

Whenever any portion of the Work is performed by the Agency at the Contractor's request, the cost thereof shall be charged against the Contractor, and may be deducted from any amount due or becoming due from the Agency.

Whenever immediate action is required to prevent injury, death, or property damage, and precautions which are the Contractor's responsibility have not been taken and are not reasonably expected to be taken, the Agency may, after reasonable attempt to notify the Contractor, cause such precautions to be taken and shall charge the cost thereof against the Contractor, or may deduct such cost from any amount due or becoming due from the Agency. Agency action or inaction under such circumstances shall not be construed as relieving the Contractor or its Surety from liability.

9-3.1 General. (Continued)

Payment shall not relieve the Contractor from its obligations under the Contract; nor shall such payment be construed to be Acceptance of any of the Work. Payment shall not be construed as the transfer of ownership of any equipment or materials to the Agency. Responsibility of ownership shall remain with the Contractor who shall be obligated to store, protect, repair, replace, rebuild, or otherwise restore any fully or partially completed work or structure for which payment has been made; or replace any materials or equipment required to be provided under the Contract which may be damaged, lost, stolen or otherwise degraded in any way prior to completion of the Work under the Contract, except as provided in 6-10.

Warranty periods shall not be affected by any payment but shall commence on the date equipment or material is placed into service at the written direction of the Engineer. In the event such items are not placed into service prior to partial or final completion of the Work, the warranty periods will commence on the date set forth as the date of field completion in the Engineer's acknowledgement of completion.

If, within the time fixed by law, a properly executed notice to stop payment is filed with the Agency, due to the Contractor's failure to pay for labor or materials used in the Work, all money due for such labor or materials will be withheld from payment to the Contractor in accordance with applicable laws.

At the expiration of 35 Days from the date of recording of the Notice of Completion, or as prescribed by law, the amount deducted from the final estimate and retained by the Agency will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

9-3.2 Partial and Final Payment. The Engineer will, after award of Contract, establish a closure date for the purpose of making monthly progress payments. The Contractor may request in writing that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the Agency's payment procedure.

Each month, the Engineer will make an approximate measurement of the Work performed to the closure date and, as a basis for making monthly payments, estimate its value based on the Contract Unit Prices or as provided for in 9-2. When the Work has been satisfactorily completed, the Engineer will determine the quantity of Work performed and prepare the final estimate.

Work not conforming to the Contract Documents shall not be measured for payment.

Conformance with the Contract Documents shall be, in addition to constructing the Work in accordance with the Contract Documents, the Contractor's compliance with those portions of the Contract Documents not directly related to the completed Work, including but not limited to: construction and maintenance of detours; diversion and control of water; protection and repair of existing facilities of the Agency and adjacent owners; site maintenance; coordination with utilities and other contractors on the site; proper survey procedures and records; obtaining required permits and inspections; complying with working hour limitations; providing a Contractor's representative while Work is being performed; complying with environmental requirements; maintaining access and safety for users of facilities that are to remain in service during construction; and obeying all laws affecting the Work.

Payment for Extra Work will be made only on approved Daily Extra Work Reports with supporting documentation as required in 3-3.

From each progress estimate, 5 percent will be deducted and retained by the Agency, and the remainder less the amount of all previous payment will be paid to the Contractor.

No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damages under 6-9.

9-3.2 Partial and Final Payment. (Continued)

As provided for in Sections 22300 of the California Public Contract Code, the Contractor may substitute securities for any monies withheld by the Agency to ensure performance under the Contract. In substituting securities, the Contractor may either:

a. Deposit qualifying securities already owned by the Contractor with the Escrow prior to the Contract payment date, or

b. Direct the Agency to send retained funds to the Escrow to be invested by the Escrow in qualifying securities as directed by the Contractor.

9-3.2.1 Release of Withheld Contract Funds. Pursuant to Public Contract Code Section 22300, Contractor has the option to deposit securities with an Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the construction Contract between the Agency and the Contractor. A form of Escrow Agreement for Security Deposits in Lieu of Retention has been adopted by the Agency as one of the Contract Documents; procedures for implementing the provisions of the Escrow Agreement are contained in Escrow Instructions which shall become effective upon exercise of the option by the Contractor.

The Contractor shall take the following steps if it desires to substitute securities:

a. Execute the Escrow Agreement for Security Deposits in Lieu of Retention.
b. Furnish to the Escrow Agent a power of attorney and other forms necessary to empower the Escrow Agent to convert the securities to cash.
c. Furnish to the Escrow Agent the securities described.
d. Pay the Escrow Agent's fees and costs.

When the Contractor deposits with the Escrow Agent securities in lieu of money required to be withheld from progress payments, a sum of money equivalent to the current cash value of the securities as determined by the Escrow Agent shall be released to the Contractor by, or upon the direction of, the Agency.

If the total of the money plus the current cash conversion value of securities on deposit should fall below the aggregate amount of the sums required to be withheld from progress payments pursuant to 9-3.1 and 9-3.2, an amount equal to the difference shall be withheld from the next regular progress payment in addition to the amount which would ordinarily be withheld pursuant to 9-3.1 and 9-3.2. If the next regular progress payment is less than the total of the amounts to be withheld therefrom, the Contractor shall immediately either deposit with the Agency cash in the amount of the difference or deposit with the Escrow Agent additional securities having a current cash conversion value equal to or greater than the difference.

The Contractor shall be the beneficial owner of any such securities on deposit with the Escrow Agency and shall be entitled to any interest earned thereon prior to conversion. The Agency may direct the Escrow Agency to convert securities with the Escrow Agency into cash, and to deliver the cash to the Agency, in any case where the Contractor is in default, including the following:

a. where the Agency would be entitled to use funds withheld pursuant to 9-3.1 and 9-3.2 to satisfy claims of workers, materials suppliers or subcontractors, or to complete or correct work which the Contractor has failed or refused to complete or correct, or

b. where the Contractor has failed to comply with the requirements of this section respecting the deposit of additional cash or securities to make up for a fall in the value of securities already on deposit with the Escrow Agency.

The Agency may hold and use cash resulting from such a conversion of securities in the same manner as it would be entitled to hold and use funds withheld pursuant to 9-3.1 and 9-3.2.

9-3.2.2 Timely Progress Payments. As required by Public Contract Code Section 20104.50, the Contractor is informed that should a progress payment not be made within 30 Days after receipt of an undisputed and properly submitted payment request from the Contractor, the Agency shall pay interest to the Contractor on the unpaid amount at the rate set forth in the Code of Civil Procedures, Section 685.010(a). Agency shall promptly review payment requests, and if not determined to be proper, document to the Contractor, within 7 Days, the reasons why the request is not proper.

Contractor should refer to the code sections cited for further information.

9-3.3 Delivered Materials. Payment for the cost of materials and equipment delivered to the Work site but not incorporated in the Work will be included in the progress estimate if, prior to the closure date for the monthly progress payment, the material or equipment is listed by the Contractor on the Agency's form together with date of delivery, vendor's or Subcontractor's name and cost; is accompanied by a copy of an invoice showing the cost thereof; has an aggregate cost in excess of $5,000 for each progress payment; is currently on the Work site at an approved location and in good condition; and is one of the following:

1. Precast concrete units weighing more than 100 kilograms (200 pounds) each.
2. Structural steel members weighing more than 100 kilograms (200 pounds) each.
3. Individual pieces of electrical equipment costing over $1,000 each.
4. Individual pieces of mechanical equipment costing over $1,000 each.
5. Reinforced concrete pipe of any size.
6. Storm drainage pipe 900 mm (36") in diameter and larger.
7. Water and sewer pipe 300 mm (12") in diameter and larger.
8. Finish hardware for doors.
9. Other individual items of equipment costing over $1,000 each
10. Materials where the aggregate value of a single type of material exceeds $1,000 and is either:
    a) Fabricated or cut to fit the Work before delivery, or
    b) Of a size or type not available from any manufacturer without a special production run.

On unit price Bid items, the amount paid for materials or equipment delivered but not incorporated in the Work shall not exceed 75% of the amount of the Bid item which includes such material or equipment.

On lump sum Bid items, the amount paid for materials and equipment delivered and not incorporated in the Work shall not exceed 75% of the item in the approved schedule submitted in accordance with 9-2 of which such materials or equipment is a part.

Should materials or equipment previously paid for be damaged, destroyed, stolen or removed from the Work site, the payment previously made therefor will be deducted from the next progress payment, unless such materials or equipment are replaced prior thereto.

On the closure date for progress payments, as provided in 9-3.2, the Contractor shall certify that all materials and equipment not incorporated into the Work, for which payment has previously been made or is being requested, is still at the Work site and in good condition. Failure to provide such certification will be cause for deducting previous payments for materials not incorporated in the Work from the amount due the Contractor in the progress payment.

Payment for materials or equipment, as provided herein, shall not constitute approval or acceptance thereof nor shall such payment modify or abridge any of the rights the Agency has under the Specifications or at law nor relieve the Surety of any of its obligations under the bonds.

9-3.4 Mobilization

9-3.4.1 Scope. Mobilization includes preliminary services, work and operations, including but not limited to, furnishing required bonds, obtaining necessary permits and work areas, providing a specified field office, the movement of labor, supplies, equipment and incidentals to the Work site, and for all other work, services and operations which must be performed or for which costs are incurred prior to performing work of the other Contract items.

9-3.4.2 Payment. The Contract lump sum price bid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in mobilization as specified herein. Payment for mobilization will be made as the Work proceeds on the following basis except that where a field office is required by the Specifications, no payment for mobilization will be made until the specified field office has been provided:

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of mobilization pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of mobilization pay item	Percentage of the original Contract total.
5	10	50	5
10	20	75	7.5
20	50	95	9.5
50	Completion of Work	100	10
Completion of Work		100	

Where no Bid item is provided for mobilization, payment for mobilization shall be considered to be included in the other Bid items.

9-4 TERMINATION OF AGENCY LIABILITY. After completion of all work required by the contract, Agency will furnish Contractor a Release on Contract form stating the amount of total authorized payments for the project. Contractor shall execute and return said form within 21 days of receipt. Said form shall release and discharge the Agency from all claims of and liability to the Contractor for all manner of debts, demands, accounts, claims, and causes of action under or by virtue of said Contract except:

a. The claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, and any amounts retained as required by Stop Notices or Labor Code provisions.

b. Any unsettled claims or disputes listed on the Release on Contract form which has been processed in compliance with the requirements for making claims under the Contract, including given timely notice pursuant to the applicable provisions of the Contract and following the procedure set forth in 6-12.

Acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

When executing the Release on Contract, the Contractor shall certify that each unsettled claim or dispute listed thereon has been processed in compliance with the requirements for making claims under the Contract, including giving timely notice pursuant to the applicable provisions of the Contract and following the procedures for resolution of disputes or claims set forth in 6-12 and that acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

If Contractor fails to execute and submit a Release on Contract within the 21 day time period set forth above, the Release on Contract shall be deemed to have been submitted with no unsettled claims or disputes listed on the Release on Contract. A payment of $1.00 will be made to the Contractor for such Release on Contract and waiver.

SECTION 10 - DIVERSION, CONTROL AND REMOVAL OF WATER

10-1 DESCRIPTION. This section covers the diversion, control and removal of all water entering into the construction area or otherwise affecting construction activities.

10-2 REQUIREMENTS. All permanent construction shall be performed in a site free from water unless otherwise provided for in the Special Provisions. The Contractor shall construct, maintain, and operate all necessary cofferdams, pumps, channels, flumes, drains, well points and/or other temporary diversion, protective, and water removal works required for diversion, control and removal of all water, whether surface or groundwater, whatever its source, during construction.

Inundation of partially completed Work due to lack of control during non-working periods will not be permitted, and may be cause for requiring removal and replacement of Work already completed.

The Contractor shall be responsible for obtaining the use of any property in addition to that provided for in the Plans and Specifications, which may be required for the diversion, protective, and water removal works so as not to create a hazard to persons or property or to interfere with the water rights of others.

It shall be understood and agreed that the Contractor shall hold the Agency and the Engineer harmless from legal action taken by any third party with respect to construction and operations of the diversion and protective works.

10-3 DIVERSION AND CONTROL WORKS.

Prior to beginning of work involving diversion, control and removal of water, the Contractor shall submit a water control plan to the Engineer. In the event circumstances during the course of construction require changes to the original water control plan, a revised water control plan shall be promptly submitted to the Engineer in each instance. No responsibility shall accrue to the Engineer or the Agency as a result of the plan or as a result of knowledge of the plan.

Construction and operation of the diversion, control and removal works shall be in accordance with the water control plan submitted, except deviations therefrom may be specifically approved by the Engineer.

All works installed by the Contractor in connection with dewatering, control, and diversion of water but not specified to become a permanent part of the Work, shall be removed and the site restored, insofar as practical, to its original condition prior to completion of construction or when directed by the Engineer.

10-4 PAYMENT. No separate Bid item is included. Payment for this item of Work will be considered to be included in the payments made for other items of Contract Work to which water control is incidental.

200-1 ROCK PRODUCTS

200-1.6 Stone for Riprap

200-1.6.1A Alternate Stone for Riprap. As an alternate to the requirements of Subsection 200-1.6, the sample may be subject to the following tests:

TESTS	TEST METHOD NO.	REQUIREMENTS
Apparent Specific Gravity	ASTM C 127	2.40 Min.
Resistance to Abrasion	ASTM C 535, Grading 1	35% Max.
Soundness	Section 211-8	10% Max.
Wet and Dry Loss	Section 211-9	5% Max.
Solubility	Section 211-10	No Loss

All rock shall be angular or subangular in shape. Angular shall be defined as having sharp corners and straight planes on all faces, with no evidence of wear caused by wind, water or abrasion. Subangular shall be defined the same as angular except that evidence of wear by wind, water or abrasion may be allowed. Determination of angularity will be made by the Engineer.

200-1.6.2 Riprap Size

The individual classes of rock used for riprap shall conform to the following:

Rock Sizes	RIPRAP CLASSES					
	1-Tonne (1-Ton)	½-Tonne (½-Ton)	¼-Tonne (¼-Ton)	Light	Facing	Cobble
	PERCENTAGE LARGER THAN					
2-Tonne (2-Ton)	0-5					
1-Tonne (1-Ton)	50-100	0-5				
½-Tonne (½-Ton)		50-100	0-5			
¼-Tonne (¼-Ton)	90-100		50-100	0-5		
100-kg (200-lb)		90-100		50-100	0-5	
35-kg (75-lb)			90-100	90-100	50-100	0-5
10-kg (25-lb)					90-100	95-100
0.5-kg (1-lb)	100	100	100	100	100	100

The amount of material smaller than the smallest size listed in the table for any class of riprap shall not exceed the percentage limit listed in the table determined on a weight basis.

Compliance with the percentage limit shown in the table for all other sizes of the individual pieces of any class of riprap shall be determined by the ratio of the number of individual pieces larger than the specified size compared to the total number of individual pieces larger than the smallest size listed in the table for that class.

Flat or needle shapes will not be accepted unless the thickness of individual pieces is greater than 1/3 the length.

Before placing in final location, depositing, or stockpiling within the project limits, each individual load of riprap must meet the size requirements of the class specified.

SECTION 206 - MISCELLANEOUS METAL ITEMS

206-3 GRAY IRON AND DUCTILE IRON CASTINGS

206-3.3.2A Manhole Frame and Cover Sets

Unless otherwise specified, manhole frames and covers shall be in accordance with the following Standard Plans contained in the SPPWC:

Clear Opening Diameter mm (Inches)	SPPWC Plan No.	Catalog Numbers	
		Alhambra Foundry	Long Beach Iron Works
600 (24)	630-1	A-1495	X-162
675 (27)	631-1	A-1496	X-164
750 (30)	632-1	A-1497	X-163
900 (36)	633-1	A-1498	X-106A

206-5 METAL RAILINGS.

206-5.2 Flexible Metal Guard Rail Materials.

206-5.2A Flexible Metal Guard Rail Materials; Modification. The "Construction" grade Douglas Fir for "posts, including blocks" does not have to be "free of heart center".

SECTION 210 - PAINT AND PROTECTIVE COATINGS

210-6 STORM DRAIN HARDWARE. All storm drain hardware, including manhole frames and covers, grates, protection bars, steps, etc., shall be protected from corrosion.

Storm drain hardware made of cast iron shall be protected by painting with, or dipping in, a commercial grade asphalt paint. Storm drain hardware made of steel shall be galvanized.

211-6 SIEVE ANALYSIS. Sieve analysis shall be performed in accordance with ASTM C136.

211-7 Sand Equivalent Test. This test is intended to serve as a field test to indicate the presence or absence of plastic fine material. The test shall be run in accordance with Calif. test 217 or ASTM D2419. When testing material containing asphalt, this test method shall be modified by drying the sample at a temperature not exceeding 38°C (100°F).

211-8 R-VALUE. Resistance (R-value) shall be determined by California Test 301.

211-9 SPECIFIC GRAVITY AND ABSORPTION. Apparent specific gravity, bulk specific gravity and absorption shall be determined by California Test 206, 207, 208, 209, 224, 225, or 308, Method C where zinc stearate may be substituted for paraffin.

211-10 LOS ANGELES RATTLER TEST. Loss in Los Angeles Rattler shall be determined by California Test 211.

211-11 SOUNDNESS. For riprap, the soundness shall be determined in accordance with Calif. Test 214, excluding sections D, E, G.2.b, and H, and adding the following:

a. The test sample shall be prepared by breaking or sawing a representative sampling of riprap into particles passing the 75 mm (three inch) and retained on the 50 mm (two inch) sieve. If there are a variety of rock types or degrees of weathering within a rock type, each unique type or condition must meet the loss requirement.

b. The test sample size shall be 25,000 grams (55 lbs.) ± 1 percent.

c. All particles of test sample which break into three or more pieces during testing shall be discarded. The remaining sample shall be washed on a 4.75 mm (#4) sieve and all particles retained shall be oven dried.

d. The loss in weight shall be determined by subtracting from the original weight of the test sample the final weight of all particles retained on the 4.75 mm (#4) sieve. Divide the loss in weight by the original weight and multiply by 100 to determine the percent loss.

e. Report the following:

   (1) The percent loss.

   (2) The number of pieces affected, classified as to number disintegrating, splitting, crumbling, cracking, flaking, etc.

211-12 WET AND DRY LOSS. Wet and dry loss shall be determined as follows:

A sample of rock shall be crushed, screened, oven dried, and 1,000 g (2.2 lbs.) to 1,500 g (3.3 lbs.) of the 19 mm (3/4 inch) to 9.5 mm (3/8 inch) fraction shall be taken for the test.

The crushed and graded sample shall be submerged in tap water for 8 hours at room temperature, after which the sample shall be drained and oven dried at 78°C (140°F). When dry, the sample shall be cooled to room temperature. This completes one cycle.

After 10 cycles, the percent loss shall be computed as follows:

$$\% \text{ Loss} = \frac{100 \times \text{Weight of Material Passing 4.75 mm (No. 4) Sieve}}{\text{Total Weight of Sample}}$$

211-13 SOLUBILITY. Approximately 0.5 kg (one pound), air dried samples shall be immersed in local tap water and in Pacific Ocean water (or a 3.5% sodium chloride solution) for 8 hours each at 78°C (140°F). After immersion, the samples shall be washed with tap water, air dried and reweighed.

211-14 Permeability Test. Permeability tests for granular soils shall be performed in accordance with ASTM D2434, using samples compacted to the specified field density.

PART 3 CONSTRUCTION METHODS

SECTION 301 - TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

301-1 SUBGRADE PREPARATION

301-1.3 Relative Compaction

301-1.3.1 Firm, Hard and Unyielding. The term "firm, hard and unyielding" as used in 301-1.3 shall mean that when the heaviest construction and hauling equipment used on the Work drives over the subgrade, no permanent deformation shall occur either before or during pavement construction.

301-1.4 Subgrade Tolerances. Subgrade for pavement, sidewalk, curb and gutter, driveways, or other roadway structures shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section. Subgrade for subbase or base material shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section.

Variations within the above specified tolerances shall be compensating so that the average grade and cross section specified are met.

301-2 UNTREATED BASE

301-2.3 Compacting

301-2.3.1 Tolerances. The tolerance requirement in 301-2.3 is modified from 6 mm (0.02 foot) to 15 mm (0.05 foot).

SECTION 302 - ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT

302-5.1 General

302-5.1.1 Asphalt Concrete Berms. Asphalt concrete berms shall be constructed of Class III-D-PG70-10 asphalt concrete by mechanical means to conform to the details and location as shown on the Plans.

A tack coat, as provided in 302-5.4, shall be applied to the existing or new pavement preceding the placement of the asphalt concrete berms.

302-5.4 Tack Coat

302-5.4.1 Fog Seal. When specified, a fog seal consisting of material meeting the requirements of 203-3 shall be applied to the surfaces of all completed asphalt concrete at the rate of 0.36 liter per square meter (0.08 gallon per square yard) of the combined emulsion or such lesser rate ordered by the Engineer. Surface to be sealed shall be free from dust, dirt, and other foreign material. Surface shall be sealed within 7 Days after paving.

302-5.9 Measurement and Payment

302-5.9.1 Measurement and Payment for Asphalt Berm. Asphalt concrete berms will be paid for at the Contract Unit Price per linear meter (feet) of berm in place. No separate measurement or payment will be made for asphalt, aggregate, or tack coat.

302-5.9.2 Measurement and Payment for Fog Seal, Tack Coat, and Prime Coat. Measurement and payment for the specified material shall be by the tonne (ton) in place. Emulsions shall be measured after the specified dilution has been made.

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS AND DRIVEWAYS

303-5.1 Requirements

303-5.1.4 Concrete Substitution. Class 280-C-14 (470-C-2000) may be used in lieu of Class 310-C-17 (520-C-2500) and Class 280-D-14 (470-D-2000) in lieu of Class 310-D-17 (520-D-2500) as specified in 201-1.1.2 for street surface improvements, excluding concrete pavement, when no class is specified on the Plans or in the Special Provisions.

SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION

306-1 OPEN TRENCH OPERATIONS

306-1.2 Installation of Pipe

306-1.2.1 Bedding

306-1.2.1.1 Bedding Material. When native material is allowed for backfill in the bedding zone, no rocks larger than 40 mm (1½") in maximum dimensions shall be included. Material containing ashes, cinders, and types of refuse or other deleterious material shall not be used as bedding.

306-1.2.1.2 Sewer Pipe Bedding. Bedding for sewer pipe from 100 mm (4") below the pipe to the spring line (horizontal diameter) of the pipe shall be free draining, granular material with a maximum size of 15 mm (1/2 inch), unless another bedding method is shown on the Plans.

Densification of the bedding material may be by the application of water or by mechanical means. Unless otherwise specified, all bedding material shall be densified to a relative density of 90%. Acceptability of densification in the bedding zone will be determined by visual inspection and probing to determine that no voids exist in the backfill material. In this paragraph, the word "voids" does not include intergranular voids in the soil structure.

306-1.2.1.3 Flexible Pipe Bedding. Bedding for flexible drainage and sewer pipe shall be granular material having a sand equivalent of at least 50. The bedding material shall be placed and compacted from 150 mm (six inches) below the pipe to the top of the bedding as defined in 306-1.2.1. A 1 m (three foot) long section of low permeability material (50% passing 75 μm (200) sieve) shall be installed and mechanically compacted in lieu of the above specified bedding material at intervals of 60 m (200 feet) or as otherwise indicated on the Plans.

306-9 DISINFECTION. All water mains and appurtenances shall be disinfected before being placed in service in accordance with AWWA C651 except as specified herein:

a. The water mains shall be chlorinated so that a chlorine residual of not less than 20 ppm remains in the water after standing in the pipe for 24 hours.

b. The Agency will perform sampling and testing of bacteriologic samples. Disinfection shall be repeated until two or more consecutive samples are negative for coliform organisms.

The pressure in the line being chlorinated shall be maintained at least 35 kPa (5 psi) lower than that existing in any Agency line to which it is connected.

306-10 WATERWORKS APPURTENANCES

306-10.1 Valves. Valves shall be located as shown on the drawings.

Each valve shall be operated prior to its installation to assure proper functioning. Valves shall be installed plumb and in alignment with the water main. Valves shall be anchored by metal ties to a concrete base. Line valves may be moved to the closest joint upon approval of the Engineer.

306-10.2 Valve Boxes. Each underground valve shall be provided with a valve box. The valve boxes shall be installed plumb and centered over the operating nut of the valve. Valve boxes shall be installed with concrete collars.

Where valve boxes are to be placed in asphaltic type pavement, they shall not be set to grade until after paving has been completed.

Where valve boxes are to be placed in concrete pavement, they shall be set to grade prior to paving operations.

306-10.3 Thrust Devices. A reaction or thrust device shall be provided on all dead ends, tees, elbows, and bends with more than 5 degrees deflection on pressure pipe lines.

Thrust devices shall be cast-in-place concrete, poured against undisturbed or compacted earth. Thrust devices shall be sized and constructed in accordance with the Plans.

Thrust devices and anchor blocks shall be constructed of Class 280-C-14 (420-C-2000) concrete. Thrust devices and anchor blocks shall be cured at least 7 Days where Type IP or II cement is used or at least 48 hours where Type III cement is used.

Metal tie-rods or clamps shall be of adequate strength to prevent movement of pipe. All metal shall be coated in accordance with AWWA C110.

306-10.4 Fire Hydrants. Fire Hydrants shall be installed as shown on the Plans.

All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having only two hose nozzles 90 degrees apart shall be set with each nozzle facing the curb at an angle of 45 degrees.

In uncurbed public road rights of way, fire hydrants shall be located as far as possible from the traveled way while providing a 1 m (3-foot) wide clear space between the fire hydrant and the right of way line. In curbed public road rights of way, fire hydrants shall be installed so that there is 300 mm (12 inches) clear between the face of curb and the fire hydrant.

306-10.5 Fire Hydrant Barricades. Fire hydrant barricades shall consist of 100 mm (4-inch) standard steel pipe, schedule 40, filled with concrete, and having a total length of 2 m (72 inches). They shall be embedded in concrete blocks 300 mm (12 inches) in diameter and 1000 mm (40 inches) deep below ground surface with the barricade pipe embedded to 100 mm (4 inches) above the bottom of the concrete so 1 m (36 inches) extends above ground surface. The steel pipe above ground shall be painted chrome yellow in accordance with AWWA C503.

Barricades shall be installed between the fire hydrant and vehicle traffic paths at locations indicated on the Plans or where required by the water purveyor or Fire Department. Barricades shall not be installed within public road rights of way.

Fire hydrant barricades shall not obstruct the hydrant outlets.

310-5 Painting Various Surfaces

310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings.

310-5.6.8A Application of Paint - Two Coats All painted traffic striping and markings shall be applied in two coats. The price named in any Bid item for painting traffic striping and markings shall include all costs for both applications, including any delays entailed for the required drying time between applications. If bleeding, curling or discoloration occurs following application of the second coat, unsatisfactory areas shall be given an additional coat, or coats, of paint. No additional payment will be made for work necessary to correct bleeding, curling or discoloration.

PART 4

SECTION 400 - ALTERNATE ROCK PRODUCTS, ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE MATERIAL

400-1 Rock Products

400-1.1 Requirements

400-1.1.1 General

Alternate rock material, Type S, as specified in Section 400 may be used on the Work.

400-3 Portland Cement Concrete

Suppliers of portland cement concrete shall file mix designs as required by 400-1.1.2

400-4 Asphalt Concrete

Suppliers of asphaltic cement concrete shall file mix designs as required by 400-1.1.2

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext): / FAX (A/C, No):	
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$ See VCSS 7-4.2
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$ See VCSS 7-4.2
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	X POLICY PRO-JECT LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$ 1,000,000
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$ 1,000,000
								$
	UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						WC STATU-TORY LIMITS / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

(Agency) - (Project Name) (Project Specification number)

The Agency and the County of Ventura, including its boards, all special Districts governed by the Board of Supervisors, agencies, departments, officers, consultants, employees, agents and volunteers, is named as Additional Insured as respects work done by Contractor under the terms of the contract on General Liability and Auto Liability Policies. Waiver of Subrogation is applicable to the Agency and the County of Ventura, its boards, districts, agencies, departments, officers, employees, agents and volunteers for Work Comp and General Liability. Endorsements required for referenced contract will be issued by the Insurance Company.

CERTIFICATE HOLDER

County of Ventura
Public Works Agency L-1670
800 S. Victoria Avenue
Ventura, CA 93009-1670

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2010/05) **The ACORD name and logo are registered marks of ACORD**

Project: **Contractor:** **Specification No:**

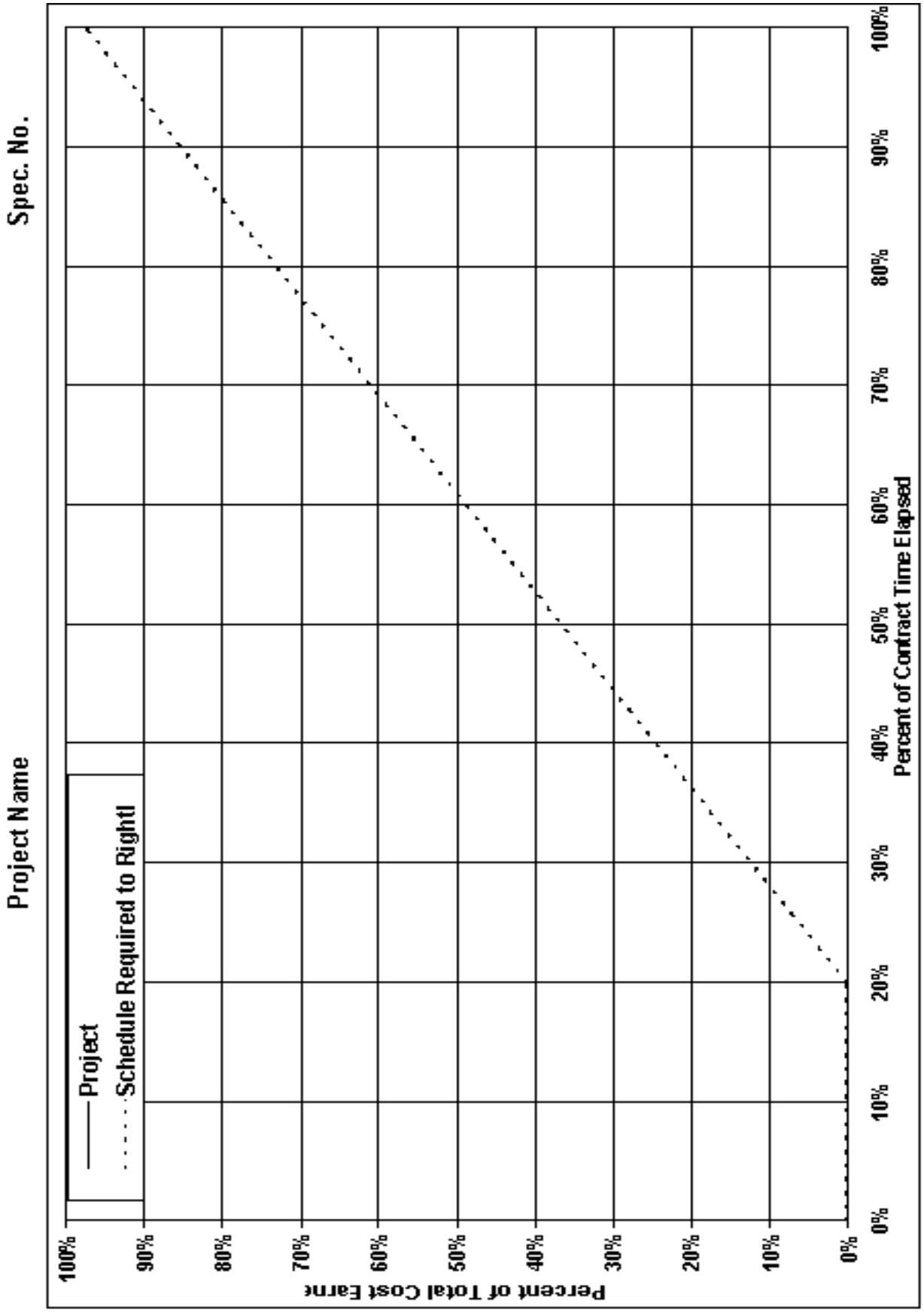
Item No.	Work or Material	WORKING DAYS OF CONSTRUCTION CONTRACT TIME																					
		BEGINNING OF CONTRACT TIME																					

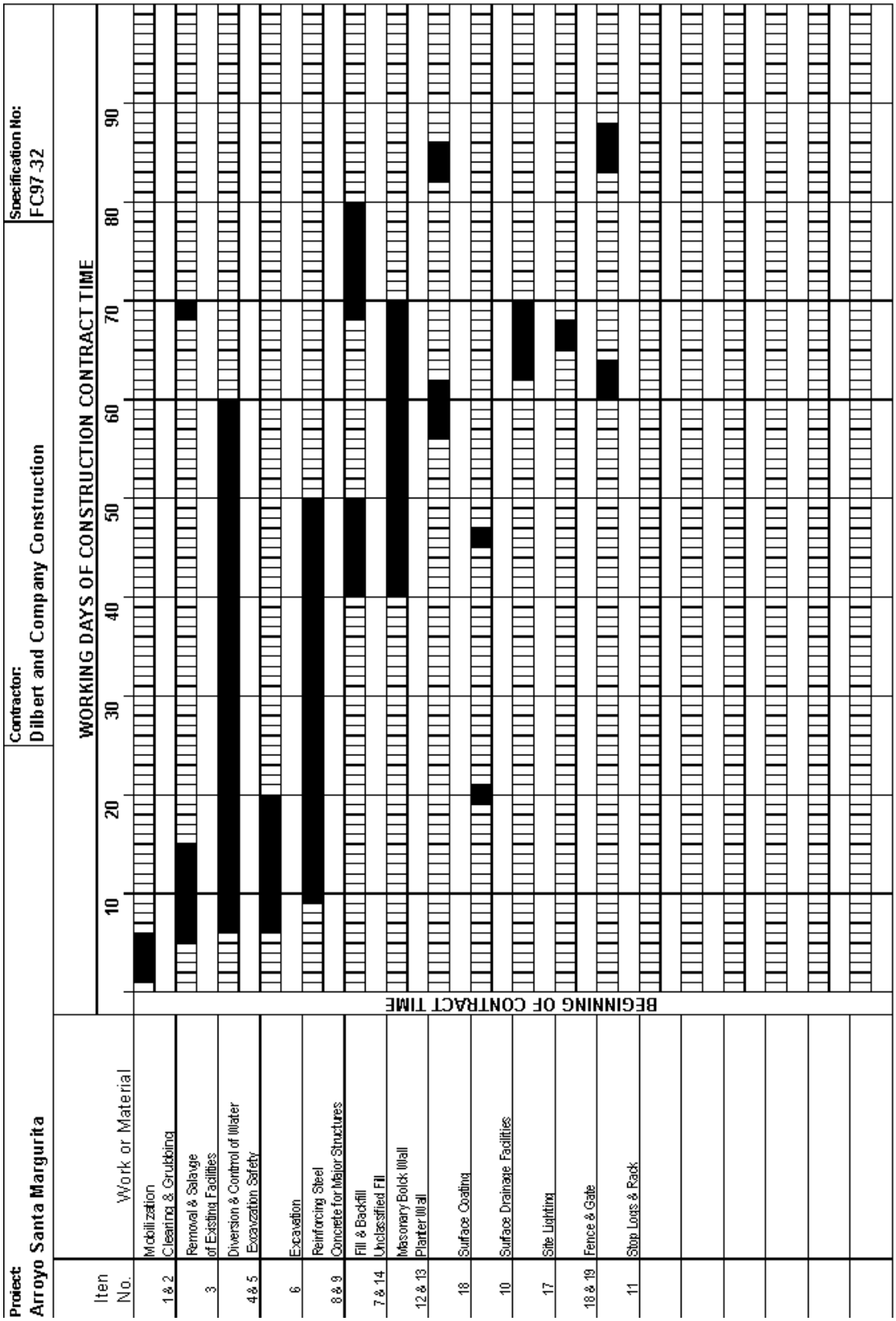
EACH HORIZONITAL INTERVAL EQUALS ____ WORKING DAYS OF CONTRACT TIME

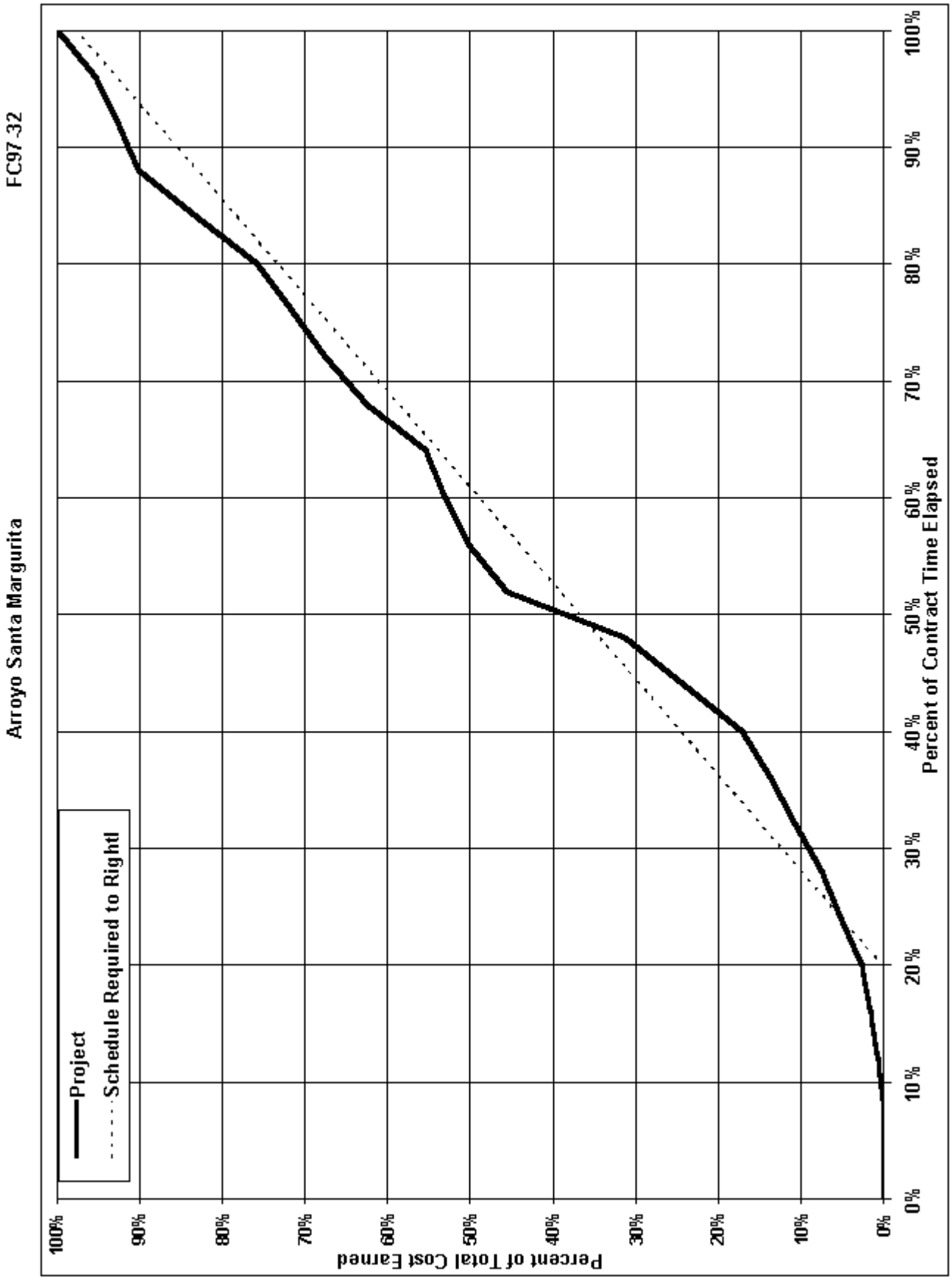
Submitted _____ Contractor

By _____ Date

Title _____


Project Name
Spec. No.
Project
Schedule Required to Right!
Percent of Total Cost Earne
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Percent of Contract Time Elapsed


Project:
Arroyo Santa Margurita
Contractor:
Dilbert and Company Construction
Specification No:
FC97-32
Item No.
Work or Material
Mobilization
1 & 2
Clearing & Grubbing
Removal & Salvage
3
of Existing Facilities
Diversion & Control of Water
4 & 5
Excavation Safety
6
Excavation
Reinforcing Steel
8 & 9
Concrete for Major Structures
Fill & Backfill
7 & 14
Unclassified Fill
Masonary Block Wall
12 & 13
Planter Wall
18
Surface Coating
10
Surface Drainage Facilities
17
Site Lighting
18 & 19
Fence & Gate
11
Stop Logs & Rack
WORKING DAYS OF CONSTRUCTION CONTRACT TIME
10
20
30
40
50
60
70
80
90
BEGINNING OF CONTRACT TIME
EACH HORIZONITAL INTERVAL EQUALS 1 WORKING DAYS OF CONTRACT TIME
Submitted Dilbert and Company Construction
Contractor
By Tina Blair
5/22/97
Date
Title President


Arroyo Santa Margurita
FC97-32
Project
Schedule Required to Right
Percent of Total Cost Earned
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 %
10 %
20 %
30 %
40 %
50 %
60 %
70 %
80 %
90 %
100 %
Percent of Contract Time Elapsed

ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between
("Agency") whose address is _____ and
("Contractor") whose address is _____ and
("Escrow Agent") whose address is _____.

For the consideration hereinafter set forth, the Agency, Contractor and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the Construction Contract entered into between the Agency and Contractor for _____ in the amount of dated _____, (hereinafter referred to as the "Contract") which Contract is identified by Spec. No._____ and Auditor Controller's Contract No._____. Alternatively , on written request of the Contractor, the Agency shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Agency within ten days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Agency and Contractor. Securities shall be held in the name of _____ , and shall designate the Contractor as the beneficial owner.

(2) The Agency shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Agency makes payments of retentions earned directly to Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Agency pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the escrow account. These expenses and payment terms shall be determined by the Agency, Contractor and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Agency.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from Agency to the Escrow Agent that Agency consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Agency shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the Agency of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Agency.

(8) Upon receipt of written notification from the Agency certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, the Escrow Agent shall release to the Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Agency and the Contractor pursuant to Sections (1) to (8), inclusive, of this Agreement and the Agency and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Agency and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Agency:

_____, Director,
Public Works Agency

_____, Director
Central Services Department

_____, Director
Engineering Services Department

Address for all of the above:
Public Works Agency
800 South Victoria Avenue
Ventura, CA 93009

SAMPLE FORM

Form used for escrow will have names and signatures of persons authorized in accordance with paragraph 10.

On behalf of Contractor:

Title

Name

Signature

Street Address

City & State Zip Code

On behalf of Escrow Agent:

Title

Name

Signature

Street Address

City & State Zip Code

At the time the Escrow Account is opened, the Agency and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Agency:
(Agency name)

Title

Name

Signature

Contractor:
(Contractor company name)

Title

Name

Signature

EXHIBIT "A"
ESCROW INSTRUCTIONS

The parties to this escrow are _____("Agency") and _____ ("Contractor") and _____("Escrow Agent"). Agency and Contractor have entered into a contract for the construction of _____which contract is identified by Spec. No. _____ and Auditor-Controller's Contract No. _____ and was entered into by and between Agency and Contractor ("Construction Contract"). Pursuant to Public Contract Code Section 22300, Contractor may substitute certain securities for an equivalent amount of money required to be withheld from progress payments by Agency to Contractor pursuant to the Construction Contract.

The Escrow Agent is hereby instructed as follows:

1. Contractor may deliver to Escrow Agent:

   (a) Securities of the types specified in Sections 22300 of the Public Contract Code and Section 16430 of the Government Code.

   (b) Such other documents as are necessary to enable Escrow Agent to convert such securities into cash.

2. Upon receipt of such securities and other documents, Escrow Agent shall notify Agency within ten days of the deposit, and shall examine them to determine whether they are in a form sufficient to effect conversion of the securities into cash. Escrow Agent shall thereupon send written notice of its determination to Agency.

3. Escrow Agent shall hold such securities as trustee for Agency. The right of Agency to such securities is superior to any other lien or claim of lien; provided, however, that Contractor shall be entitled to any interest earned by such securities prior to their conversion to cash pursuant to section 5 hereof, and further provided that such interest may be withdrawn by Contractor at any time and from time to time without notice to Agency.

   Securities may be substituted by Contractor, but any securities substituted for securities previously deposited shall not reduce the current cash value of securities held below that last reported to Agency by Escrow Agent.

4. Escrow Agent shall determine the current cash value of such securities held by it as of the close of business on the first business day following the _____ day of each month and, in addition, on any other days which the Agency may from time to time specify in a written notice to Escrow Agent. Current cash value shall be determined as follows:

   (a) For securities traded over-the-counter or on a stock exchange:

      (1) Determine either the current bid price for the securities as of the close of business or the face value of the securities, whichever is less.

      (2) Subtract the cost of sale (broker commission).

      (3) Subtract all unpaid escrow fees and costs associated therewith.

   (b) For certificates of deposit:

      (1) Determine the face amount.

      (2) Subtract the potential interest penalty for immediate conversion.

      (3) Subtract all unpaid escrow fees and costs associated therewith.

   (c) Determine the value of other securities by procedures calculated to determine net realizable value. Promptly upon making each such determination, Escrow Agent shall notify Agency of the securities held and current cash value of such securities.

5. At any time or times that Agency believes it has a right to do so under the provisions of the Construction Contract, Agency may, without the consent of Contractor, deliver to Escrow Agent a written demand that Escrow Agent convert to cash all or any part of such securities. Upon seven days' written notice from Agency of such demand, Escrow Agent shall convert to cash all or part of such securities as demanded and shall distribute the cash as instructed by the Agency.

6. When the Construction Contract has been satisfactorily completed on the part of Contractor and any stop notices filed against the Construction Contract have been released, Agency shall give written notice to Escrow Agent that such securities may be returned to Contractor. Upon receipt of such written notice and payment of all escrow fees and costs, the Escrow Agent shall deliver to Contractor all money, interest, securities and other documents remaining in escrow and the escrow shall terminate.

7. Contractor, and not Agency, shall be liable to Escrow Agent for all of Escrow Agent's fees and costs associated with this escrow.

8. The Director of the Ventura County Public Works Agency, a Department Director of said Agency, or other person authorized in writing by such Director or Department Director is authorized to give written notice and to make written demands on behalf of Agency pursuant to sections 4, 5 and 6 hereof.

9. All written notices and demands pursuant to the escrow agreement and these Instructions shall be addressed as follows:

(a) To Agency:

Director, Ventura County Public Works Agency
800 South Victoria Avenue
Ventura, California 93009

(b) To Contractor:

(c) To Escrow Agent:

DATED: _____

_____	_____	_____
_____	_____	_____
By _____	By_____	By_____
Title _____	Title _____	Title_____
AGENCY	CONTRACTOR	ESCROW AGENT Bank Charter: State [ ] Federal [ ] Escrow Agent's Address: _____ _____

APPENDIX E BLANK

RELEASE ON CONTRACT

CONTRACT NAME: _____

SPEC. NO. _____, PROJECT NO. _____

WHEREAS, by the terms of the contract dated ____ _, 20___ entered into by _____

_____and the undersigned CONTRACTOR,

_____

_____

_____

undersigned CONTRACTOR agreed to perform certain work for the compensation specified in said contract; and

WHEREAS, the CONTRACTOR represents that said work is fully completed and that final payment is due to the CONTRACTOR under terms of said contract,

NOW, THEREFORE, in consideration of the promises and the payment by [AGENCY NAME] to the CONTRACTOR of the amount due under the contract, to wit, the sum of $_____ and the additional consideration of $1.00, receipt of which is hereby acknowledged by the CONTRACTOR, the CONTRACTOR hereby releases and forever discharges _____ of and from all manner of debts, dues, demands, sum or sums of money, accounts, claims and causes of action, in law and in equity, under or by virtue of said contract except the claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, any amounts retained as required by Stop Notices or Labor Code Provisions, and any unsettled claims or disputes as follows: (If none, leave blank)

Description of Claim or Dispute	Amount	Date of Claim	Date of Notice of Potential Claim

The CONTRACTOR certifies that each unsettled claim or dispute listed hereon has been processed in compliance with the requirements for making claims under the contract, including giving notice pursuant to the applicable provisions of the contract, and following the procedures for resolution of disputes or claims set forth in subsection 6-12 of the contract. Acceptance of this Release on Contract by the [Agency Name] shall not be deemed as a waiver or release of its right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

IN WITNESS WHEREOF, the hand and seal of the CONTRACTOR have been hereunto set this ___ day of _____, 20___.

THIS FORM MUST BE ACCOMPANIED
by a proper acknowledgement form
(See Civil Code Section 1189)

Contractor

By

Title

SAMPLE PERFORMANCE AND PAYMENT BOND FORM

Bond No._____

SURETY BONDS

PERFORMANCE BOND

Whereas, the «Agency», hereinafter called "Agency", and «Contr», hereinafter called "principal", have entered into a contract dated «ContrDate» whereby principal agrees to complete certain designated work identified as project «ProjName» (Spec. No.«SpecNo»), and to perform other duties and obligations as described in said contract, which is incorporated herein by this reference and made a part hereof; and

Whereas, principal is required under the terms of said contract to furnish a bond to guarantee principal's faithful performance of the work and all terms and conditions of the contract;

Now, therefore, we the principal and the undersigned, as corporate surety, are held and firmly bound unto Agency in the penal sum of «CostText» ($«OrigCostFmtd») lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and provisions in the said contract and any alteration thereof made as therein provided, on principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless Agency, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The above obligation shall continue after Agency's acceptance of the work for the duration of the warranty period as specified in the contract during which time if principal fails to make full, complete, and satisfactory repair or replacement to the work and/or fails to protect Agency from loss or damage resulting from or caused by defective materials or faulty workmanship, the obligation of surety hereunder shall continue so long as any obligation of principal remains.

PAYMENT BOND

And, whereas, under the terms of said contract, principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the Agency to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said principal and the undersigned, as corporate surety, are held firmly bound unto the Agency and all contractors, subcontractors, laborers, material suppliers and other persons employed in the performance of the aforesaid contract and referred to in the aforesaid Civil Code in the like sum of «CostText» dollars ($«OrigCostFmtd») for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees of the contractor and the contractor's subcontractors, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees including reasonable attorney's fees incurred in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

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

GENERAL TERMS

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the plans and specifications accompanying the same shall in any manner affect its obligations on these bonds, and it does hereby waive notice of any such change, extension, alteration or addition.

Nothing herein shall limit the Agency's rights or surety's obligations under the contract or applicable law, including, without limitation, California Code of Civil Procedure section 337.15.

In witness whereof, this instrument has been duly executed by the principal and surety above named

on ,_____, 20 .

«Contr»
Name of Principal

By_____

Title_____

_____
Name of Surety

By_____
Attorney-in-Fact

Address _____

City_____ State ___ Zip_____

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH CORRESPONDENCE CONCERNING THIS BOND SHOULD BE DIRECTED.

Telephone No._____

SAMPLE BOND FORM

Agency will prepare the Bond in this format and transmit it to the Contractor along with the Contract and the Notice of Award letter.

Surety shall fill in the Bond No., date identification and signature of surety in places provided.

Contractor shall sign and indicate title in place provided.

A-467/9-Tmpl

Special Provisions

Table of Contents

TABLE OF CONTENTS

END OF DOCUMENT

DIVISION 01

GENERAL REQUIREMENTS

SECTION 01 00 01
GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 GENERAL

A. The following items, reference, supplement, modify, change, delete from, or add to the Ventura County Standard Specifications (VCSS), Part 1 - General Provisions, Sections 1 through 10. Where any portion of the General Provisions is modified, or any paragraph, subparagraph or clause thereof is modified or deleted, unaltered provisions remain in effect.

1. Reference VCSS 1-2 Definitions. Comply with additional requirements of Section 01 42 16.

2. Abbreviations to paragraph VCSS 1-3.1. Refer to Section 01 42 13 for additional abbreviations.

3. Reference VCSS 2-5.3 Submittals. Comply with additional requirements of Section 01 33 01.

4. Reference VCSS 2-5.4 Record Drawings. Comply with the additional requirements of Section 01 78 39.

5. Reference VCSS 7-8.1 Cleanup and Dust Control. Comply with the additional provisions of Section 01 74 01.

6. Reference VCSS 7-8.4 Sanitation. Comply with additional requirements of Section 01 51 01, Paragraph 1.02.

7. Reference VCSS 7-8.5 Temporary Light, Power and Water. Comply with additional requirements of Section 01 51 01, Paragraphs 1.01, 1.02, and 1.03.

1.02 CONFERENCE

A. Pre-Bidding Conference: A non-mandatory pre-bidding conference will be held as specified on the Project Information sheet. None of the information transmitted at this meeting will be construed in any way to modify the plans and specifications. Any modification will be forwarded to all plan holders as an addendum.

B. Pre-Construction Conference. The Engineer will schedule a pre-construction conference after Notice of Award.

1.03 REFERENCES

A. Conform to reference standard by date of issue current as of date of Contract Documents.

1.04 BARRIERS AND FENCING

A. Construct and maintain barricades for the following: As required by local authorities and State safety ordinances; as required to protect the Agency's property from injury or loss; and as required for the protection of the public.

1.05 PROJECT MEETINGS

A. Project meetings shall be held as stipulated in Section 01 31 19.

1.06 SUMMARY OF PROJECT

The project will demolish and remove the existing one-story structure in its entirety, including existing foundation, concrete walkways, all existing utility lines from the building, landscaping, trees, border wall and fence etc.

1.07 PROJECT SUPERINTENDENT / PROJECT MANAGER

A. The Contractor shall provide a full-time project superintendent on the job site each working day between the contract start date specified in the contract proposal and the acknowledgement of completion of Work specified in VCSS Section 6-8.

1.08 LABOR COMPLIANCE SOFTWARE

A. The County of Ventura has implemented, and maintains, a labor compliance software service program called “LCP Tracker”.

B. Contractors and subcontractors shall keep accurate payroll records in accordance with Labor Code Section 1776 and shall furnish weekly certified payrolls for their workers and shall input their certified payroll records electronically using LCP Tracker within 7 days following the end of the preceding week.

NOTE: This requirement is in addition to the State of California requirement to upload payrolls into the State DIR electronic system. However, LCP Tracker has the functionality to upload the submitted payrolls directly to the State DIR electronic system.

C. In bidding on the project, it shall be bidder’s responsibility to evaluate the cost of complying with the above-referenced LCP Tracker requirements.

D. Agency will provide materials and information to assist the Contractor with using LCP Tracker.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 11 01
SUMMARY OF PROJECT

PART 1 - GENERAL

1.01 SUMMARY

A. This Section includes the following:

1. Work covered by the Contract Documents.

B. Related Sections include the following:

1. Section 01 51 01, " Construction Facilities and Temporary Controls" for limitations and procedures governing temporary use of Agency's facilities.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: VCMC Colston Building Demolition

1. Ventura County Medical Center

Ventura County Medical Center
300 Hillmont Avenue
Ventura, CA

B. Owner: County of Ventura

1. Owner's Representative: County of Ventura Public Works Agency “Engineer” and/or "Agency."

2. The Work consists of the following:

A. The Work of the Contract (Specification No. CP22-01, Project No. P6T20011) comprises the construction specified in the Specifications and that shown on the drawing Cover Sheet G-01, labeled "Ventura County Medical Center Colston Building Demolition”.

1.03 USE OF PREMISES

A. General: Contractor shall have full use of premises for construction operations as indicated by the Contract limits. Contractor shall have limited use for construction operations outside of the Contract limits.

B. Use of Site: Limit use of premises to work in areas indicated on the plans. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits: Confine constructions operations to:

a. Work area: Areas where demolitions work is located.

b. Lay-down area: Areas for use in access, storage, and other typical activities. Lay-down areas are to be restored to their original condition at final completion.

2. Driveways and Entrances: Keep fire lanes, driveways, parking lots loading areas, and entrances serving other facilities clear and available to Agency'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.
   c. Deliveries shall coincide with on-site work hours.

1.04 AGENCY'S OCCUPANCY REQUIREMENTS

A. Full Agency Occupancy: Perform the Work so as not to interfere with Agency's day-to-day operations. Maintain existing exits, unless otherwise indicated. The Contractor is responsible to satisfy VCMC requirements for recertifying each space as required for occupancy and obtain air test and balance acceptance prior to each space being reoccupied.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Agency's Representative and the authority having jurisdiction.

2. Provide not less than 14-day notice to Agency's Representative of activities that will affect VCMC operations.

3. Allow normal access by Agency's personnel to maintain and utilize utilities.

4. Allow normal access by Agency's personnel to maintain and operate other existing facilities in the area.

1.05 WORK RESTRICTIONS

1. Hours for Utility Shutdowns: shall be during off hours or weekends unless otherwise approved by the Agency's Representative.

2. Hours for Core Drilling and other noisy activity: Refer to Section 01 14 01, Instructions to Contractors Working at VCMC, for noise control requirements.

B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Agency or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Agency not less than 14 days in advance of proposed utility interruptions.

2. Do not proceed with utility interruptions without Agency's Representative written permission. Under no circumstances shall the Contractor shutdown utility systems.

3. Utility outages involving potable water, soft water, chilled water, steam, condensate return, compressed air, natural gas, and electrical (normal and emergency), etc. shall be conducted by or under the supervision of the Agency's Facilities Services.

C. Additional Information: Refer to the following documents for requirements that may impose additional on-site work restrictions:

1. Section 01 14 01, Instructions to Contractors Working at VCMC.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

DOCUMENT 01 12 00
PROJECT SCHEDULE

PART 1 - GENERAL

1.01 DEFINITIONS

A. CONTRACT TIME (or TIME OF COMPLETION): In accordance with Ventura County Standard Specifications (VCSS) Part 1 - General Provisions, Sections 6-7, the duration for the Contractor to complete each portion of the Work as set forth in the Contract.

B. INITIAL SCHEDULE SUBMITTAL: The Schedule shall be submitted concurrently with the submittal of the signed Contract, Contract Bonds, and Certificate of Insurance. Once received, reviewed and accepted by the Agency, it will become the Contract Schedule.

C. CONTRACT SCHEDULE: The schedule submitted by Contractor representing the sole work plan for accomplishing the Work. Once the submitted Initial Schedule Submittal is reviewed and accepted, it shall be the base line schedule document that forms the basis of all measurements of Contract Time in the Contract Documents. The Contract Schedule may not be modified other than as called for in this Document.

D. UPDATED PROGRESS SCHEDULE: A schedule submitted periodically reflecting current work status of all Work Activities measured against the latest accepted Contract Schedule. An updated progress schedule shall be submitted monthly, at a minimum, prior to each progress payment closure date. Processing of the progress payment will be delayed until such revised schedule complying with this section is received.

E. CONTRACTOR’S REQUESTED REVISIONS REPORT: A written statement of any proposed revisions to the Contract Schedule that modify the Contractor's plan of construction, activity durations, logic or other non-progress related schedule data. The report shall list all such changes to the Contract Schedule including a description of the specific change, the reason for the change and the effect the change will have on the scheduled completion date.

F. RECOVERY SCHEDULE: As called for by this section, a schedule produced by the Contractor once the Updated Progress Schedule forecasts that the Contractor will not finish the Work within the tolerances of the Contract Time. Once the Recovery Schedule is reviewed and accepted by the Agency, it will be considered the Contract Schedule.

G. SUBMITTAL SCHEDULE: A separate schedule or portion of the Contract Schedule maintained by the Contractor that reflects the schedule for submission and approval of Submittals for materials and equipment as required in the specifications.

H. FLOAT:

1. Float or Total Float shall be defined as the difference between the early finish and late finish dates for an activity.
2. Project Float shall be defined as the difference, if any, between the Contractor’s planned Final Completion date and the Contract Completion date.
3. Negative Float is any such calculated float which results in a “negative” number.

I. WORK ACTIVITY: Any individual task of work shown on a submitted schedule that requires time and resources (manpower, equipment, materials, etc.) to be completed in a continuous operation.

J. MILESTONE: An element of the schedule that indicates the beginning or end of a major event or phase, or any other important point in the project.

K. LOOK AHEAD SCHEDULE: A schedule based on the Updated Progress Schedule that shows a limited portion of the schedule. The limited portion of the schedule shall show Work Activities that were performed at least two (2) weeks before and Work Activities planned to be performed three (3) weeks beyond the date the schedule is presented, or as reasonably requested by the Agency. Include submittal number corresponding with the work taking place.

L. CHANGE ORDER FRAGNET SCHEDULE: A schedule submitted anytime the Contractor requests an adjustment in the Contract Time. A Change Order Fragnet Schedule shall be based on the applicable portion of the Contract Schedule that is claimed to be impacted, necessitating and demonstrating an extension of the Contract Time. All modifications to the Contract Schedule's Work Activities and their associated information (including float, duration, logic, manpower, etc.) shall be clearly identified. The Change Order Fragnet Schedule submittal shall show and clearly identify the unchanged ("unimpacted") Work Activities or Milestones from the Contract Schedule that have logical ties to and from the impacted activity or chain of impacted activities. The Contract Schedule shall be left unchanged and a similar portion (i.e., the same Work Activities from the Contract Schedule) shall also be submitted for comparative purposes.

M. CRITICAL WORK ACTIVITY: A Work Activity that, if delayed, will delay the scheduled completion of the Work (i.e., Work Activities that comprise the path of least total float). All other Work Activities are defined as non-critical and considered to have float.

N. BENEFICIAL OCCUPANCY: The stage of work in the progress of the Construction Work, as determined by Agency's Representative, when the Construction is complete and in accordance with the Contract Documents except only for completion of minor items which do not impair Agency's ability to occupy and fully utilize the Construction Work for its intended purpose and a Certificate of Occupancy has been issued by the Authority Having Jurisdiction.

1.02 GENERAL REQUIREMENTS

A. Contractor shall use the Critical Path Method (CPM) of scheduling.

B. The Contractor's personnel who prepare the schedules called for by this section shall be qualified and experienced in Critical Path Method (CPM) scheduling with the specified products of this section; and capable of fulfilling the requirements of this section. The Contractor shall hire a qualified consultant to prepare and maintain the Contract Schedule, or if qualified, the Contractor may perform these services within their own organization.

C. The Contract Schedule shall be used by the Agency in review of requests by the Contractor for modification of the Contract Time in accordance with the Contract Documents. Responsibility for developing the Contract Schedule and monitoring of actual progress in relation to the Contract Time rest solely with the Contractor. Failure of the Contractor to schedule any element of the Work, or any inaccuracy in the Contract Schedule, regardless if the Agency has reviewed and accepted such schedule, will not relieve the Contractor from its obligation to complete the Work within the Contract Time,

and that the Contractor assumes full responsibility for execution of the Work. The Agency's review of and response to the schedule submissions shall not be construed as relieving the Contractor of its complete and exclusive control over the means, methods, sequences and techniques for execution of the Work.

D. All cost for preparing, printing, mailing of any schedules called for by this section, or the Contract Documents shall be part of the Contract Sum.

E. AGENCY acceptance of the monthly Updated Progress Schedule will be a condition precedent to making monthly progress payments for Work performed.

F. All Requirements of the Contract Schedule shall also apply to the Initial Schedule Submittal, Recovery Schedule, Updated Progress Schedule, Change Order Fragnet Schedule, and As-Built Schedule.

G. The Contractor shall be responsible for assuring that the work sequences are logical and the network shows a coordinated plan for complete performance of the work. If the Contractor or Agency Representative discovers an undefined element of work activity or logic, it shall be corrected by the Contractor in a schedule revision, as described in this Section. If a planned activity requires greater-than normal daily resources to accomplish, schedule submittals shall include a narrative describing the activity, and the amount and use of extraordinary resources.

H. It is expressly understood and agreed that the time of beginning, the rate of progress, and the time of completion of the work are of the essence to this Contract. Therefore, the primary objectives of the scheduling program are to ensure the adequate planning, scheduling, and execution of the construction activities (including but not limited to all activities of the Contractor, subcontractors, suppliers, utilities, etc.) so they may be performed in an orderly and expeditious manner within the Contract Time stipulated by the Contract. The scope of work for this section is to develop a Schedule demonstrating complete fulfillment of all contract requirements and to keep that Schedule up-to-date in accordance with the requirements of this section. The Schedule will be in precedence format and will be computer generated and updated and will be the controlling Schedule document utilized for managing construction.

I. All Work Activities shall be of sufficient detail to provide identification of all components utilized in executing, monitoring and evaluating progress of the Work. Each work activity shall be assigned a unique Activity Number. Each Activity Number shall be assigned an Activity Description that briefly covers the scope of work indicated. Activity Descriptions may not be altered unless a description of the revision is identified in the Contractor's Requested Revision Report and accepted by the Agency's representative. Work Activities shall be discrete items of Work that must be accomplished under the Contract and constitute definable, recognizable entities within the Project. All Work Activities shall have a defined duration. All durations shall be in multiples of working days.

J. All Work Activities shall have appropriate durations allowing measurement of their progress, but no Work Activity shall exceed ten working days unless accepted by Agency's Representative. In general, if a reasonable estimate of progress against a proposed Work Activity can not be reasonably measured, a Work Activity shall be broken into multiple Work Activities such that monitoring of actual progress versus planned progress can be ascertained. All Work Activities shall be of sufficient detail to provide identification of all components used in executing, monitoring and evaluating progress of the Work.

K. The Contract duration and any adjustments for approved Change Orders shall be delineated on the schedule. Work Activities shall include all Design Work as applicable, Demolition and Construction Work deliverables, including all submittals called for in the Scope of Work; and shall include the submittal and approval of permit applications (as necessary), samples of materials, shop drawings, working drawings, testing and inspections, safety and security plans, worksite control plans, utility company point-of connection installations and applications. In addition, Work Activities shall be included for procurement of materials and equipment potentially impacting the critical path, fabrication of special materials and equipment, and their installation and testing, and delivery of Agency-furnished items. Work Activities of the Agency, that may become Critical Work Activities shall be reflected, as well as Work Activities by utilities and other similarly involved third parties associated with the Work. The Contract Schedule shall include Work Activities or Milestones representing: all design and preconstruction activities; specific Milestones for the start and completion of each stage of the Design Work, specific Milestones for when state and local agency information and reviews are required; submittal dates; production Milestones; early purchasing; key deliverables in Scope of Work; Milestones for each Contract Phase; mobilization of personnel and equipment when required; sequence of operations; commissioning Work Activities; procurement of materials and equipment; and all contract closeout Work Activities such as Punch Lists, inspections, training, and operation manuals. The planned Completion date(s) shall be shown as milestones.

L. Physical or logical constraints, restraints, and sequences of work shall be shown. Mandatory Constraints are prohibited within the Schedule. At no time shall the Progress Override feature of the scheduling software be used in any schedule submittals.

M. Float in any activity, milestone completion date or Contract completion date (i.e., Project Float) shall be considered a resource available to both the Agency and the Contractor. Float is not time for the exclusive use or benefit of either the Agency or the Contractor, but must be used in the best interest of completing the project on time. The Contractor shall proceed according to the early dates and shall continue the work on that activity as scheduled until it is completed unless circumstances prevent him or her from so doing.

N. Any submitted schedule showing negative float will be rejected by the Agency.

O. The Critical Work Activities shall be identified, including critical paths for Contract interim and Final Completion Milestone dates. Not more than 35% of the schedule's Work Activities shall be critical or near critical (i.e., less than ten days of float), unless accepted by the Agency.

P. All Work Activities shall be coded at a minimum to reflect which Contract Phase and area/location they are associated with. Any Work Activity that may be involved in multiple Phases or areas/locations shall be broken into separate Work Activities to reflect each phase such work occurs in, allowing Work Activities to be grouped by Contract Phase and areas/locations.

Q. Contractor shall not sequester float through strategies including extending Work Activity duration estimates to consume available float, using preferential logic, using extensive or insufficient crew/resource loading, use of float suppression techniques, special lead/lag logic constraints (unless specifically requested in writing to Agency's Representative and accepted). Use of float time disclosed or implied by the use of alternate float suppression techniques shall not be for the exclusive use or benefit of either the Agency or Contractor. It is acknowledged that Agency-caused or Contractor-caused time savings to

Work Activities on or near the critical path will increase float, such increase in float shall not be for the exclusive use or benefit of either the Agency or Contractor.

R. The Project shall be phased to allow other adjacent occupancies, along with their support spaces, in use throughout the full duration of the project. Refer to Section 01 12 16 Phasing for specific phasing for this project.

S. When the Contractor gives notice to the Agency's Representative that the Construction Work is ready for Beneficial Occupancy, unless Agency's Representative determines that the Construction Work is not sufficiently complete to warrant an inspection to determine readiness for Beneficial Occupancy, Agency's Representative will inspect the Construction Work. If the Agency's Representative determines the work is not ready for Beneficial Occupancy the Agency's Representative will prepare and give to Contractor a comprehensive list of items to be completed or corrected before establishing Beneficial Occupancy. Contractor shall proceed promptly to complete and correct items on the list. Failure to include item on such list does not alter the responsibility of the Contractor to complete all Construction Work in accordance with the Contract Documents. Upon notification that the items on the list are completed or corrected, as applicable, the Agency's Representative will make an inspection to determine whether the Construction Work is complete.

T. When the Agency's Representative determines that the Construction Work is ready for Beneficial Occupancy the Agency's Representative will notify the Contractor.

U. The Guarantee to Repair Period for the Work covered within the area of Beneficial Occupancy, shall commence on the date that the Agency took possession. The Guarantee to Repair Period shall not commence for any equipment or systems that:

1. Are not operational (equipment or systems shall not be considered operational if they cannot be used in the intended service); or

2. Are not accepted by the Agency.

1.03 TIME OF COMPLETION

A. Acceptance by the Agency of a Schedule that indicates completion of the Work prior to Contract Completion date, or completion of an interim Milestone prior to the Contract Milestone date shall be for the convenience of the Contractor and shall not change any of the Contract requirements including but not limited to Contract Completion Date; nor shall such an early completion schedule serve as a waiver of the Contractor's nor the Owner's right to utilize the full amount of time specified in the Contract, unless so modified in a Contract Change Order.

B. The Agency shall not be responsible or liable to Contractor for any constructive acceleration due to failure of the Agency to grant time extensions under the Contract Documents; including Contractor time extension requests that fail to substantially comply with the submission requirements and the justification requirements of this Contract for time extension requests.

1.04 CONTRACTOR COVENANTS AND GUARANTEES

A. Contractor covenants and guarantees that Contractor will not:

1. Misrepresent to Agency its Schedule and all of its components or Contractor's actual execution of the work.

2. Use schedules materially different from those submitted by Contractor to the Agency for the direction, execution or coordination of the Work.
3. Prepare schedules, updates, revisions or reports for the work which are not feasible or realistic; or which do not accurately reflect the actual intent or reasonable and actual expectations of Contractor and its Subcontractors.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 SUBMITTALS

A. INITIAL SCHEDULE SUBMITTAL: Per VCSS 6-1, The Contractor shall submit the Initial Schedule Submittal concurrently with the submittal of signed Contract, Contract bonds, and certificate of insurance. The Notice to Proceed will be delayed until the schedule is received and approved by AGENCY. See VCSS 6-7.4, Starting of Contract Time.

B. FORM: Schedule submittals shall be provided as described below.

1. The Contractor shall submit an electronic copy of the Schedule. The electronic copy of the schedule will be provided in the scheduling software's native file format so that it may be restored, opened and analyzed by the Agency, as well as a PDF electronic printout. The PDF printout shall indicate the Activity Number, Activity Description, Total Float, Percent Complete, Early Start date and Early Finish date, as well as display the bars representing activity durations.
2. The Contractor shall submit a PDF electronic printout of the schedule's critical path. The PDF printout shall indicate the Activity Number, Activity Description, Total Float, Percent Complete, Early Start date and Early Finish date, as well as display the bars representing activity durations.
3. The contractor shall submit the following Schedule reports on 8-1/2" x 11" media or as requested by the Agency:
   a. Monthly Progress Report: The Monthly Progress Report shall be organized as follows:
      (i) Contractor Transmittal Letter;
      (ii) A description of Work completed during the period;
      (iii) Identification of unusual resources: manpower, material, or equipment restrictions or use, including multiple shifts, 6-day work weeks, specified overtime, or work at times other than regular days or hours;
      (iv) Description of the current critical path;
      (v) Changes to the critical path since the last schedule submittal;
      (vi) Description of problem areas;
      (vii) Current and anticipated delays, including:
         1. cause of delay,
         2. impact on other activities milestone and completion dates,
         3. corrective action and schedule adjustments to correct the delay;
      (viii) Pending items and status of:
         1. Permits,

2. Change Orders,
3. Time Adjustments,
4. Non-Compliance Notices;

(ix) Contract Completion Date status:
1. Ahead of schedule and number of days,
2. Bend schedule and number of days,
3. Causes for any changes;

b. Activity Report: The Activity Report shall include all of the activities sorted by activity number and present the following information: Activity Number; Activity Description; Original Duration; Remaining Duration; Percentage Complete; Responsibility Code; Area Code; Early/Actual Start; Early/Actual Finish; Late Start; Late Finish; Total Float (except as specifically indicated otherwise).

c. Early Start Report: The Early Start Report shall be per the above Activity Report requirements with the exception that is shall be sorted by early start. (Note: This report shall be required with the Initial and Updated Progress Schedule submittals).

3.02 WEEKLY PROGRESS MEETING

A. Once each week, on a day established by the Agency, a meeting will be held to assess the progress achieved by the Contractor during the previous work week. The Contractor shall submit the Look Ahead Schedule (if requested) and a manpower/construction report for the previous week (the Weekly Report). The Weekly Report shall indicate for each day of the preceding week the actual manpower for each activity which was in progress. This report shall include the actual number of tradesmen which were working for the Contractor and each subcontractor each day. The Weekly Report shall also indicate for each day the weather conditions, potential delays and inspections occurring on that day. The Weekly Report shall be a report derived from the Schedule which may be completed by hand providing that the handwriting is legible to the Agency.

B. See also Section 13 31 19 Project Meetings.

3.03 PROGRESS REPORTING AND SCHEDULE REVISIONS

A. Once each month on the date specified by the Agency, the Contractor shall prepare and submit to the Agency an Updated Progress Schedule and reports stipulated within this Section. The Updated Progress Schedule shall:

1. have a data date and be statused as of the first calendar day of the month, or other date as established by the Agency;
2. show all progress, including but not limited to as-built dates, percent complete, and resources expended;
3. show accepted changes, including but not limited to changes as the result of change orders and any changes in contract completion dates which have been accepted within this section since the last revision of the Schedule;
4. only include changes to the schedule that follow the procedure outlined in paragraph B below.

B. Should the Contractor after Agency's acceptance of the Initial Schedule Submittal desire to change Contractor's plan of construction, activity durations, logic or other non-progress related schedule data, Contractor shall submit a Contractor's Requested Revisions

Report, as defined in Part 1 of this Section, to the Agency at least one week prior to the submittal of a schedule incorporating any such changes. Attached to the Report shall be a schedule analysis report (generated from the software indicated in Part 2) comparing the previously accepted schedule to the proposed schedule. At a minimum, this schedule analysis report shall show the added activities, deleted activities, added relationships, deleted relationships, changed original durations, changed remaining durations, and changed driving relationships. Requested changes that are acceptable to the Agency will be incorporated into the next Updated Progress Schedule.

C. The Contractor shall revise the Schedule as reasonable to mitigate the impact of changes and delays to the project with no change in Contract price. However, when the Agency orders changes which have the potential to impact the specific dates stipulated, a Change Order Fragnet will be prepared by the Contractor and provided with the Contractor's proposed price or extra work tabulation as required to the Agency for concurrence or revision as Agency deems necessary. After the Change Order Fragnet has been accepted by the Agency, it will be incorporated into the next Updated Progress Schedule submitted by the Contractor. Change Order logic will affect only those activities and performance dates directly concerned. Adjustments in scheduled intermediate completion dates or for the Contract as a whole will be considered only to the extent that there is insufficient remaining float to absorb these changes.

D. Neither the updating or revision of the Contractor's Schedule, nor the submission, updating, change or revision of any report or Schedule submitted to Agency by Contractor under this Section, nor Agency's review of any report or Schedule, or the nonexistence of any such report or Schedule shall have the effect of amending or modifying in any way the Contract Time, or the Contact Completion Date, nor shall it modify or limit in any way Contractor's obligations under this Contract.

3.04 REVIEW AND ACCEPTANCE

A. The Agency will review the Contractor's schedule submittals for constructability, cost allocation, and adherence to plans and specifications. The Contractor shall revise the Schedule as required by the Agency and shall submit revised Schedule to the Agency within 7 calendar days. Within 10 calendar days following submission of an acceptable schedule, the Contractor will provide electronic and/or hardcopy versions of the Contractor's Schedule Submittal as outlined above. Acceptance by the Agency of the Contractor's Schedule is advisory only and shall not relieve the Contractor of the responsibility for accomplishing the work in accordance with the Contract. Omissions and errors in the accepted Schedule shall not excuse performance which is not in compliance with the Contract. Acceptance by the Agency in no way makes the Agency an insurer of the Schedule's success or liable for time or cost overruns flowing from its shortcomings. The Agency hereby disclaims any obligation or liability by reason of Agency's acceptance of or acquiescence to the Schedule.

B. If, in the opinion of the Agency, the Contractor falls behind the progress schedule, the Contractor shall take any and all steps necessary to improve Contractor's progress at no additional cost to the Agency; including cost impacts to other contractors, utilities, or Agency directly caused by Contractor's delay. Such steps include but are not limited to the following:

1. Increase construction manpower in such quantities and crafts as will substantially eliminate the lag in schedule progress.

2. Increase the number of working hours per shift, shifts per working day, working days per week (as allowed by the Agency), or the amount of construction equipment, or

any combination of the foregoing, sufficiently to substantially eliminate lag in scheduled progress.

3.05 RECOVERY SCHEDULE

A. If requested by the Agency, the Contractor shall prepare and submit within 14 days from notification from the Agency a Recovery Schedule in accordance with the definition included in Part 1 of this Section. The Recovery Schedule shall address a new work plan to accomplish the remaining Work within the Contract Time and shall include and identify additional concurrent operations, logic and sequence changes, additional manpower, additional shifts, or overtime work. Once reviewed and accepted by the Agency, the Recovery Schedule shall be used as the Contractor's Updated Progress Schedule.

3.06 CHANGE ORDER FRAGNET SCHEDULE

A. In accordance with the definition included within Part 1 of this Section, a Change Order Fragnet Schedule shall be submitted any time the Contractor requests an extension of the Contract Time or an extension to other Contract requirements. A condition precedent to obtaining a time extension under the Contract shall be the timely submission of a Change Order Fragnet schedule pursuant to the requirements of this paragraph.

B. A Change Order Fragnet shall be submitted within fifteen (15) days after a delay occurs or with the Contractor's cost proposal in response to a notice of change from the Agency. In cases where the Contractor does not submit a Change Order Fragnet for a specific change order, delay, or other Contractor requested time extension within the specified period of time, then it is mutually agreed that the particular change order, delay or Contractor request has no time impact on the Contract completion date and no time extension is required.

C. Actual delays in activities which do not affect the critical path work or which do not move the Contractor's planned completion date beyond the Contract completion date will not be the basis for an adjustment of the Contract Time.

D. All other requirements of the Contract Schedule shall apply to a Change Order Fragnet Schedule.

E. Approval or rejection of the Change Order Fragnet will be made within fifteen (15) days after receipt of the Change Order Fragnet unless additional information, subsequent meetings and negotiations are necessary. Upon mutual agreement of both parties, schedule revisions illustrating the influence of the change orders, delays, and/or Contractor requests will be incorporated into the next Updated Progress Schedule.

3.07 LOOK AHEAD SCHEDULES

A. In accordance with the definition included within Part 1 of this Document, a Look Ahead Schedule shall be submitted at each progress meeting of the Work or as reasonably requested by the Agency.

B. The schedule shall display the activity ID, activity description, planned start/finish dates, total float, and the percentage complete.

3.08 SUBMITTAL SCHEDULE

A. In accordance with the definition included within Part 1 of this Document and Section 01 33 01 (SUBMITTALS), the Submittal Schedule shall be submitted and maintained by the Contractor. The Submittal Schedule shall be a comprehensive and complete representation of task activities and dates related to the procurement of materials, equipment or other items requiring Agency or designer approval (e.g., shop drawings, product data, etc.). Provide all such dates and activity durations for submittal review and approval activities in accordance with the specification sections regarding submittals. Resubmittals shall have the same review time as the Contractor's initial submittals. For additional information on requirements for Submittals, see Section 01 33 01.

B. Include any required or necessary items furnished by the Agency or a third party.

C. Consider the nature and complexity of each submittal item and allow ample time for review, revision, correction, resubmittal, and approval sufficiently in advance of the construction requirements. Coordinate preparation and processing of submittals with performance of the Work so that work will not be delayed by submittal processing. Coordinate and sequence different categories of submittals for same work, and for interfacing units of work, so that one will not be delayed by lack of coordination with another.

D. Make the Submittal Schedule consistent with the Contract Schedule required under this Section.

E. Consider time required for preparation and review of mock-ups and the relationship between mockups and the Work.

F. Schedule submittals in sequence with the schedule for Work except as required for products known to require long lead-times. For submittal of items requiring long lead-times, submit written verification of the required lead-time from the supplier, if requested.

G. Identify on the schedule all items required by the Contract Documents, indicating:

1. The Submittal Number and Submittal Sequence Number;
2. The Specification Section Number;
3. The Submittal description and manufacturer
4. The Submittal Designation character
5. Whether the Submittal is required for review or for the record;
6. Schedule date for first submittal;
7. Schedule date for resubmittal;
8. Schedule date when Agency or Designer's final release or approval is required to be returned to the Contractor;
9. Scheduled date by which the material or equipment must be on the site so as not to delay the progress of the work.

H. To the greatest extent possible, make single submissions covering the entire work of individual technical Specification Sections. Partial or "phased" submittals for work of the same Section will not be reviewed.

I. Receipt of the Submittal Schedule by Agency will be a precondition of the receipt of the first progress payment. Agency and Designer will review the Submittal Schedule in

accordance with the procedures for the Updated Progress Schedule included in this Section.

J. Submittal Schedule shall be updated and presented at progress meetings, or as requested by Agency.

END OF DOCUMENT

SECTION 01 14 01
INSTRUCTIONS TO CONTRACTORS WORKING AT VENTURA COUNTY MEDICAL CENTER

PART 1 - GENERAL

1.01 SUMMARY

A. Prior to the start of a project, the Contractor must obtain approval from the Agency's Representative for any and all necessary arrangements for routing of workers, equipment, and material to the job location. In addition, the Contractor shall become familiar with applicable Medical Center policies and procedures and comply with the following for the duration of the Project. The Contractor shall designate a person responsible for assuring the implementation of measures needed for environmental control and mitigation.

B. Related Sections include the following:

1. Ventura County Standard Specifications, Part 1 - General Provisions
2. Section 01 00 01 General Requirements

1.02 SUBMITTALS

A. Medical Safety and Infection Control Program: Within 15 days after Notice to Proceed, but not less than 10 days before gaining access to the site to start Work, Contractor shall submit its written program with detailed outline of procedures for complying with Agency requirements. The program shall be coordinated with the Contractor's schedule.

1.03 COMMUNICATION, COORDINATION AND PLANNING

A. The Contractor shall comply with supplemental instructions from the Agency concerning the facility's medical safety and infection control. When necessary to prevent unsafe conditions, supplemental instructions may include work stoppages to reschedule and/or redirect the Work.

1.04 TRAINING

A. Provide training and orientation on infection control and Agency procedures for all personnel employed by the Contractor, subcontractors, and any other personnel entering Agency in support of the Contractor.

1.05 UTILITY INTERRUPTIONS AND PRIOR NOTIFICATION

A. Shutdown or interruption of water, chilled water, steam, electrical services, natural gas, compressed air, vacuum, oxygen, nitrous oxide, or any utility system requires written notice a minimum of fourteen (14) working days in advance. Contractor is not authorized to interrupt utility services without this advance notification and the prior approval of the Agency's Representative.

1.06 ENVIRONMENTAL CONTROLS

A. Noise: All work shall be performed with a minimum of noise or disruption to normal activities in the surrounding areas.

If the Agency's Representative indicates a problem due to construction activities, activities shall be stopped. The Contractor is to notify the Engineer immediately to make satisfactory arrangements for the approved continuation of the Work. The Contractor shall develop a Workplan, for the Agency's approval, which demonstrates noise considerations for the patients' sleep period, patients' medical visits, adjacent neighbors and the ongoing function of the facility. The following noise control procedures shall be employed:

1. Maximum increase in noise shall be limited to approximately 15db over ambient.
2. The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process shall be established prior to construction commencement that will allow for resolution of noise problems that cannot be immediately solved by the site supervisor.
3. All noise-producing equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate or directed by Agency, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
4. All mobile or fixed noise-producing equipment used on the project that is regulated for noise output by a local, state, or federal agency, shall comply with such regulation while in the course of project activity.
5. Use electrically-powered equipment instead of pneumatic or internal combustion powered equipment where feasible and needed to control excessive noise.
6. Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
7. The hours of material transport shall be restricted to the periods and days permitted by both this contract and local noise or other applicable ordinance.
8. The use of noise producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only.
9. No project-related public address or music system shall be audible to any adjacent noise-sensitive receptor.

B. Odors: When odors are a concern, arrangements shall be made by the Contractor for their containment or control. Where this is not feasible, specific arrangements should be made to minimize the disturbance of normal Agency activities. Where controllable, fumes and odors shall not be allowed to migrate to occupied areas. Contractor shall work with Facilities to modify adjacent air circulation systems as deemed necessary during the construction period. Modification shall be at the Contractor's expense.

C. Vibrations: If vibration becomes an impact to facility and hospital operations, the Contractor shall stop operations, reschedule and/or implement the following with the approval of the Agency's Representative:

1. Phase demolition, earthmoving and ground-impacting operations so as not to occur in the same time period, to the extent practicable. The total vibration level produced could be less when each vibration source operates separately.

2. Select demolition methods not involving impact, where practicable

3. Avoid vibratory rollers and packers near vibration-sensitive areas.

1.07 SALVAGE AND DISPOSAL

A. All existing property of the Agency that is removed from the construction site and has been identified to be salvaged by the Agency shall be delivered to a secure site as specified by the Agency's Representative.

B. Construction debris, or material that has no redeemable value, is to be placed in Contractor-furnished refuse bins for safe and legal removal from the premises. Agency refuse bins may not be utilized unless so authorized by the Agency.

C. Trash shall be covered when transported in public areas.

1.08 PARKING

A. Contractor and related personnel shall park in authorized areas only.

B. The Contractor's parking is restricted to street parking on Hillmont Avenue and designated loading and unloading zone. The Contractor's lay-down and storage of materials is restricted to within the project area. Any deviation requires the Agency's approval.

1.09 SANITARY

A. Contractor shall provide temporary toilet facilities. The Contractor will not be allowed to use the Agency restroom facilities.

B. Contractor shall submit proposed location of temporary toilet(s) to the Agency's Representative for approval.

C. Construction personnel will not be allowed to use VCMC Campus restroom facilities for personal or equipment clean-up.

D. Sanitary Facilities shall be in accordance with OSHA regulations.

1.10 CAFETERIA AND FOOD

A. Construction personnel shall police their own areas. All cups, cans, paper, wrappers, and discarded food must be placed in trash receptacles at the end of each break.

B. Contractors shall submit the proposed location of any break and eating areas, either inside or outside of the project boundaries, to the Agency's Representative for approval.

C. Construction personnel are not allowed to have food within the facilities under construction except for areas that have been designated by the Contractor and approved by the Agency's Representative.

1.11 BADGES

A. Badges shall be worn by all of the Contractor's personnel and all of their subcontractors' personnel.

1.12 NOT USED

1.13 SMOKING AND TOBACCO

A. Smoking and the use of tobacco products including chewing tobacco are prohibited within the boundaries of the VCMC Campus.

1.14 SECURITY

A. The phone number for security is (805) 652-6283.

B. All personnel must obey and act immediately upon any request by security.

C. In an emergency dial 911.

1.15 SAFETY

A. General

1. Watch for guests and patients.
2. Work only where there is a positive barrier separation between construction activities and others.
3. Clean up all work areas immediately in occupied areas.
4. Do not drape cords across corridors. All cords must be attached to the ceiling or taped to the floor (use tape with non-marring adhesive).
5. Maintain a minimum of 6'-0" clear within all corridors.
6. Do not leave materials or equipment in the corridor.

B. Safety equipment and consideration should include, but are not limited to:

1. Anyone known to be under the influence of alcohol or drugs shall be dismissed from the Project at once and not be allowed to return.
2. Offensive language is not permitted in any area where it may be overheard by patients, staff or visitors.
3. Provide adequate emergency first aid equipment.
4. Post location and emergency phone numbers for local medical care.
5. Monitor safe ladder usage.

6. Monitor noise levels and establish safe limitations.
7. Ensure safe ventilation for air contaminants.
8. Insist on personal protective equipment, such as hard hats, safety shoes, and eye, ear, and face protection equipment.
9. Safety nets, belts, and lifelines shall be used, as appropriate.
10. Provide adequate emergency fire protection equipment.
11. Post location and emergency phone numbers for local fire departments.
12. Provide safe storage for all flammable and combustible materials.
13. Insist on safe and proper use of hand power tools and electrical drop cords.
14. Operation of cranes, derricks, and hoists should be in accordance with manufacturer's recommendations and appropriate ANSI regulations.
15. All construction operations and personnel are subject to CAL-OSHA and Agency Environmental Health & Safety regulations.
16. Provide adequate barricades and safety lighting at all open trenches adjacent to public access.
17. Properly fence entire confines of project site so as to avoid public access or unauthorized personnel.
18. All wall, floor, and ceiling penetrations shall be sealed to maintain fire and smoke ratings in accordance with CBC, NFPA 99 and *Life Safety Code*.
19. All emergency exit passages must be maintained free of obstructions.
20. Provide barricades and fencing in accordance with the Construction Logistic Drawings.

C. Fire Prevention During Welding, Cutting, and Other Hot Work

1. Hot work includes welding, heat treating grinding, thawing pipe, powder-driven fasteners, hot riveting, and similar applications producing a spark, flame, or heat.
2. Hot work shall be performed in a designated area that is approved for hot work by the Agency's Representative.
3. The Contractor shall ensure that only approved apparatus, such as torches, manifolds, regulators, or pressure-reducing valves, and acetylene generators, are used.
4. The Contractor shall ensure that all individuals involved in hot work are:
   a. Trained in the safe operation of their equipment and the safe use of the process.
   b. Have an awareness of the inherent risks involved and understand the emergency procedures in the event of a fire.
   c. Are aware if any special risks, such a flammable materials or hazardous conditions at the hot work site.

END OF SECTION

SECTION 01 26 10
REQUESTS FOR INFORMATION

PART 1 – GENERAL

1.1 DEFINITIONS

A. Request for Information/Interpretations (RFI)

1. Contractor requesting clarification of a portion of the Contract Documents, hereinafter referred to as RFI.

2. A properly prepared request for information. Interpretation shall include a detailed written statement that indicated the specific Drawings or Specification in need of clarification and the nature of the clarification requested.

a. Drawings shall be identified by Drawing number and location on the Drawing sheet.

b. Specification shall be identified by Section number, page and paragraph.

3. Request for Information: Request made by Contractor concerning items not indicated on Drawing or contained in Specifications that is required to properly perform the Work.

1.2 CONTRACTOR'S REQUEST FOR INFORAMTION

A. RFI shall be submitted through email to Project Manager. Each page of attachments to RFIs shall bear RFI number and shall be consecutively number in chronological Order.

B. When the Contractor is unable to determine from the Contract Documents, the material process or system to be installed, the AGENCY shall be requested to make a clarification of the indeterminate item.

C. Contractor shall endeavor to keep the number of RFIs to a minimum.

D. RFIs shall be originated by the Contractor.

1. RFIs from Subcontractors or suppliers shall be submitted through, reviewed by, and signed by the Contractor prior to submittal to the AGENCY. Otherwise, RFI's sent directly from Subcontractor to AGNECY shall be immediately rejected.

2. RFIs from subcontractors or material suppliers sent directly to the AGENCY shall not be accepted and will be returned unanswered.

E. Contractor shall carefully study the Contract Documents to assure that the requested information is not available therein. RFIs which request information available in the Contract Documents will be deemed "improper" or "frivolous" as noted above.

F. In cases where RFIs are issued to request clarification of coordination issues, the Contractor shall fully lay out the suggested solution using Drawings or sketched drawn to scale and submit same with the RFI. RFIs which fail to include a suggested solution will be returned unanswered with a requirement that the Contractor submit a complete request.

G. RFIs shall not be used for the following purposes:

1. To request approval of submittals
2. To request changes which are known to entail additional cost or credit
3. To request different methods of performing Work than those drawn and specified

H. In the event the Contractor believes that a clarification by the AGENCY results in additional cost or time, Contractor shall not proceed with the Work indicated by the RFI until a Contract Change Orders is executed. RFIs shall not justify a cost increase or a change in the Project schedule.

1. Answered RFIs shall not be construed as approval to perform extra Work.
2. Unanswered RFIs will be returned with notation: Not Reviewed or Rejected

I. Contractor shall allow a reasonable time for review and response time for RFIs

1. The AGENCY has a minimum of 20 days to respond to RFIs.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION

A. GENERAL

1. Requirements Included:

a. On a periodic basis, during construction, during normal business hours, Contractor's Project Manager, Superintendent and Subcontractor representatives shall attend meetings upon request of Engineer or as required in other sections of the Specifications. Engineer may invite Agency representatives and other parties as Engineer deems appropriate. Engineer will chair the meetings. Engineer will prepare minutes of the meetings, at his sole discretion. Contractor has 10 days from meeting to request revisions or corrections from the meeting minutes distributed at the weekly meeting. The meetings shall include:

1) Progress Review Meetings: Held on a periodic basis, usually weekly, to review work in progress, schedule status, issues that are current as of meeting and other matters raised by Engineer or Contractor. Contractor shall be prepared, at such meetings, to propose and commit Contractor to corrective actions and associated timetables for remediation of Contractor-accountability deviations from Contract requirements, if applicable.

2) Miscellaneous Meetings: Held on an as needed basis, as deemed necessary by Engineer or as proposed by Contractor and accepted by Engineer.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 33 01
SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work includes:

1. Furnish all submittals for work as indicated in accordance with provisions of Contract Documents.

2. Submittals include the following items:

a. Shop drawings.

b. Product data.

c. Samples.

d. Project information.

e. Schedule of Submittals: Prior to first application for payment.

3. Completely coordinate with all Contract work.

4. See VCSS 2-5.3 for additional requirements.

1.02 DEFINITIONS

A. Shop Drawing submittals are drawings, diagrams, schedules and other data specially prepared for Work by Contractor, manufacturer, supplier or distributor to illustrate some portion of Work.

B. Product Data submittals are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, test data and other information furnished by Contractor to illustrate material, product or system for some portion of Work.

C. Sample submittals are physical examples which illustrate materials, equipment or workmanship and propose standards by which Work will be judged.

1. Samples also include job site mockups.

D. Project Information submittals are items pertaining to quality control and Agency information which may not require review or response by Engineer and are to be retained for project file only.

1. Examples:

a. Test reports.
b. Certifications.

c. Design calculations.
d. Installation instructions.

E. Shop Drawings, Product Data, Samples and similar submittals are for those portions of Work for which submittals are required and shall indicate the way the Contractor proposes to conform to information given and the design concept expressed in Contract Documents.

1.03 TRANSMITTAL - GENERAL

A. Submit all items to Engineer, or person or entity to whom Engineer has delegated this function in writing. All submittals shall be delivered per the requirements of Section 2-5.3 of the VCSS.

B. Contractor is responsible for making submissions.

1. Submit to address indicated by Agency.
2. Each transmittal to include items from one specification section only.

C. Make submittals sufficiently in advance of date required to allow Engineer reasonable time for review, and resubmission if necessary.

1. Schedule submittals requiring Engineer color selection within 30 days following award of contract.

2. Items not submitted in accordance with provisions of this section will be returned, without action, for resubmission by Contractor.

1.04 NOT USED

1.05 NOT USED

1.06 PROJECT INFORMATION

A. Submit project information as called for by specification section submittal paragraph.

B. Project information:

1. Engineer may review at its sole discretion project information for compliance with Contract Documents only.

2. Review will not constitute a detailed check of submitted design calculations.

3. Appropriateness and accuracy of calculations is responsibility of Contractor (and Contractor's professional engineer when such calculations are required to be professionally sealed).

4. When professional or other certification of performance criteria of materials, systems or equipment is required by Contract Documents, Engineer shall be entitled to rely upon accuracy and completeness of such calculations and certifications.

1.07 CONTRACTOR ACTION

A Review, approve, stamp, and sign items prior to submission to Engineer.

B. Stamp indicates Contractor has:

1. Verified field dimensions and quantities.

2. Verified field construction criteria, materials, catalog numbers and similar data.

3. Reviewed and coordinated submittal data with requirements of Work and Contract Documents.

4. Certified that submittals comply with Contract Documents.

C. Reproduce and distribute submittals to Contractor's organization, including Subcontractors/vendors and to Agency in specified number of copies or additional copies as necessary to support execution of the Work.

D. Resubmit items stamped "revise and resubmit" or "rejected" until approval is received.

1. Contractor shall, if applicable, add letter suffix to previous transmittal number, to indicate resubmission.

2. Contractor shall direct specific attention, in writing, on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by Engineer on previous submittals.

E. Contractor shall direct specific attention, in writing or on Shop Drawings, Product Data or Samples, to deviations from Contract Documents.

1. Contractor shall not be relieved of responsibility for deviation from requirements of Contract Documents by Engineer's approval of Shop Drawings, Product Data and Samples unless Contractor has specifically informed Engineer in writing of such deviation at time of submission and Engineer has given written approval to each specific deviation. Such deviations shall require Agency's agreement unless it is considered a minor change in Work and does not involve adjustment in Contract Sum or Contract Time.

F. Contractor shall not be relieved from responsibility for errors or omissions in Shop Drawings, Product Data or Samples by Engineer's approval thereof.

G. Contractor is responsible for confirmation and correlation of dimensions at job site; for information that pertains solely to fabrication processes or to techniques of construction; and for coordination of work of all trades.

H. Completed work shall strictly conform to approved samples.

I. Do not start work which requires submittals, prior to return of submittals with Engineer's stamp indicating approval.

1.08 SCHEDULE

A. Within 30 days following Notice to Proceed, submit to Engineer a complete schedule of required submittals indicating proposed submittal dates for items in format acceptable to Engineer.

B. Include submittal number as described in 1.10 below.

C. Furnish all submittals to Engineer, for entire Contract, per the schedule indicated in Paragraph A above.

1.09 ENGINEER REVIEW: SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. Review is only for conformance with design concept of project and compliance with intent of information given in Contract Documents.

B. Engineer shall stamp submittals indicating action taken.

C. Engineer's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by Engineer, of any construction means, methods, techniques, sequences or procedures.

D. Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 41 13
SUMMARY OF APPLICABLE CODES

PART 1 GENERAL

1.01 APPLICABLE CODES:

TITLE 24, C.C.R.., PART 1
TITLE 24, C.C.R., PART 2, 2019 C.B.C.
TITLE 24, C.C.R., PART 3, 2019 C.E.C.
TITLE 24, C.C.R., PART 4, 2019 C.M.C.
TITLE 24, C.C.R., PART 5, 2019 C.P.C.
TITLE 24, C.C.R., PART 9, 2019 C.F.C.

NOTE: California Amendments enforced by the Local Building Official and Local Fire Official will apply to Title 24, C.C.R., Parts 2-5 and Part 9.

NFPA 13 - 2019 Edition

Hospital Licensing & Certification:	California Department of Public Health (CDPH)	
Building Official:	Office of Statewide health Planning & development (OSHPD)	
Fire Official:	City of Ventura Fire Department and OSHPD FLSO	
Utilities:	Gas,	Southern California Gas
	Water,	City of Ventura
	Sewer,	City of Ventura
	Electric,	Southern California Edison
	Telephone,	AT&T
	Flood Control,	County of Ventura

Other requirements, not enforced by OSHPD and the local building jurisdiction may apply, for example, the NFPA 101 Life Safety Code, which is enforced by CDPH

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

SECTION 01 42 13
STANDARD ABBREVIATIONS AND SYMBOLS

PART 1 – GENERAL

1.01 DESCRIPTION

A. In addition to VCSS 1-3 Abbreviations.

1.02 UNITS OF MEASUREMENT

A (amp)	ampere(s), area
ACFM	actual CFM
AIC	amps interrupting capacity
AFF	above finish floor
AWG	American Wire Gauge (nonferrous wire)
BF	board foot (feet)
BHP	brake horsepower
BTU	British thermal unit
BTUH	British thermal units per hour
C Value	thermal conductance (BTU/(HR)(SF)(F) per inch thickness
C	centigrade
cc	cubic centimeter
CCM/SEC	cubic centimeter(s) per second
CF	cubic feet, or curb face
CFH	cubic feet per hour
CFM	cubic feet per minute
CM	centimeter(s)
CMU	concrete masonry unit
CM/SEC	centimeter(s) per second
CPS	cycle(s) per second
CU	cubic
CU FT	cubic feet
CU IN	cubic inch(es)
CU M	cubic meter(s)
CY	cubic yard(s)
Db	decibel(s)
DbmV	decibel millivolts
DEG	degree(s) (angular)
degC	degree(s) Centigrade
degF	degree(s) Fahrenheit
EDR	equivalent direct radiation
F	Fahrenheit
FBM	board measure
FPM	feet per minute
FPS	feet per second

FT	feet, foot
FV	face velocity
G	gram(s)
GA,	gage, gauge
GAL	gallon(s)
GAL/SF	gallon(s) per square foot
GPH	gallon(s) per hour
GPM	gallon(s) per minute
GPS	gallon(s) per second
GHZ	gigahertz
GR	grains
HD	head
HP	horsepower
HR	hour(s)
Hz	hertz
IN	inch(es)
IN Hg	inches - mercury
IN-LB	inch-pounds (force)
IN WG	inches - water gage
K	kip(s)
K value	thermal conductivity (BTU/(HR)(SF)(F/IN)
KG	kilogram(s)
KHz	kilohertz
KPa	kilopascal(s)
KSM	kilogram(s) per square meter
KV	kilovolt(s)
KVA	kilovolt ampere(s)
KVAR	kilovars
KW	kilowatt(s)
KWH	kilowatt-hours
L	liter(s), length
LB	pound(s)
LBF-IN	pound (force) inch
LF	linear foot, linear feet
LIN	linear, lineal
LM	linear meter(s)
L/M	liter(s)/meter
M	meter
mA	milliamps
MBTU	thousand BTU
MBH	thousand BTU/HR
MCFH	thousand cubic feet per hour
MCM	thousand circular mils
MFBM	thousand feet board measure
MHz	megahertz mHz millihertz
MI	mile(s)
MIN, min	minute(s), minimum
Ml	milliliter

MM,	mm millimeter(s)
MO	month(s)
MPH	miles per hour
MVA	megavoltamperes
OZ	ounce(s)
PCF	pound(s) per cubic foot
PPH	pounds per hour
PPM	parts per million
PSF	pound(s) per square foot
PSI	pound(s) per square inch
PSIA	pound(s) per square inch absolute
PSIG	pound(s) per square inch gage
Q	total heat transfer (BTUH)
QT	quart
RH	relative humidity
R value	thermal resistance (HR)(SF)(F)/BTU
RMS	root mean square
RPM	revolutions per minute
RPS	revolutions per second
S	second
SCFM	standard CFM
SF	square foot, square feet
SM	square meter(s)
SQ CM	square centimeter(s)
SQ IN	square inch(es)
SQUARE	square (roofing) = 100 SF of surface
SSU	saybolt seconds universal
SYM	symmetrical
T,TR	tons refrigeration
U value	thermal conductance (1 divided by total R value) (BTU/(HR)(SF)(F)
uV	microvolts
V	volt(s), volume, velocity
VAC	volt(s), AC VDC volt(s), DC
W	watt(s)
YD	yard(s)
YR	year(s)

1.03 TERMINOLOGY

&	and
A	astragal, acid, compressed air
@	at
AB	anchor bolt
A/C	air condition, air conditioner
AC	air compressor, alternating current, asphalt concrete
ACLD	air cooled

ACD	amended construction document (OSHPD)
ACO	area compliance officer (OSHPD)
ACOUS	acoustical
ACSR	aluminum conduit or steel reinforced
ACU	air conditioning unit
AD	area drain, automatic damper
ADDL	additional
ADH	adhesive
ADJ	adjust, adjustable
ADMIN	administration
A/E	engineer
AFF	above finished floor
AFG	above finished grade
AGGR	aggregate
AHU	air handling unit
AISC	american institute of steel construction
AL	aluminum
ALT	alternate, altitude
AM	amplitude modulation, ammeter
AMB	ambient
ANG	angle
AMP	amplifier
ANOD	anodized
ANN	annunciator
ANT	antenna
AOR	architect of record (OSHPD)
AP	access panel
APC	acoustical plaster ceiling
APD	air pressure drop
APPAR	apparatus
APPROX	approximate
APPX	appendix
APX	approximate
ART	article
ASPH	asphalt
ASST	assistant
ASSY	assembly
ATC	acoustical tile ceiling
ATS	automatic transfer switch
ATM	atmosphere
AUTO	automatic
AUX	auxiliary
AV	avenue, acid vent
AVG	average
AW	acid waste
AWP	acoustic wall panel
AWS	American welding society
AWI	American woodworking institute
B	base, boiler, blank, bottom
BB	base board
BBD	boiler blowdown
B to B	back to back
BAL	balance

BAR	barrier
BARO	barometer
BAS	building automation system
BAT	batten
BCCMP	bituminous coated corrugated metal pipe
BD	board
BDD	backdraft damper
BHC	booster heating coil
BITUM	bituminous
BIA	brick institute of America
BKR	breaker
BKT	bracket
BL	base line
BLDG	building
BLKG	blocking
BM	beam, bench mark
BOT	bottom
BP	base plate
BR	bedroom
BRG	bearing
BRZ	bronze
BS	barium sink
BSMT	basement
BT	bathtub
BUR or B.U.R.	built up roofing
BW	both ways
BWS	brine water supply
BWR	brine water return
C	conduit
CAD	cadmium
CA	cold air
CAN	code application notice (OSHPD)
CAB	cabinet, crushed aggregate base
CANT	cantilever
CATV	community antenna television
CB	chalk board, circuit breaker, catch basin, curb
CBC	California building code
CC	cooling coil
C, CB	concrete block, concrete masonry unit
CCF	concrete floor
CCT	cubical curtain track
CCTV	closed circuit television
CCW	counter clockwise
CD	ceiling diffuser, condensate drain
CDBD	cardboard
CE	cantilevered end
CEM	cement
CG	corner guard
CGU	ceramic glazed units
CH	chiller
CHAM	chamfer
CHR	chilled water return
CHS	chilled water supply

CHW	chilled drinking water
CI	cast iron
CIP	cast iron pipe, cast in place
CIR	circle
CJ	construction joint, control joint
CKT	circuit
CL	center line, clearance
CLG	ceiling, cooling
CLKG	calking, caulking
CLO	closet
CM	construction manager
CMP	corrugated metal pipe
CMPR	compressor
CMT	ceramic mosaic tile
CMU	concrete masonry unit
CND, C	conduit
CO	cleanout, carbon monoxide
CO	compliance officer (OSHPD)
CO2	carbon dioxide
COM	common
COMP	composite, computer
COMPR	compressible
COND	condition, condenser, condensing, condensation
CONST	construction
CONT	continuous
CONTR	contractor
COP	cost of project
CU	copper
COR	contractor of record (OSHPD)
CORR	corridor
CP	cement plaster
CPD	condensate pump discharge
CPE	chlorinated polyethylene (roofing)
CPT	carpet
CR	control room
CRF	condensation resistance factor
CRIT	critical
CRT/CT	cathode ray tube
CSMT	casement
CSPE	chlorosulphated polyethylene (roofing)
CSS	clinical service sink
CSV	resilient sheet flooring (cushioned, vinyl)
CT	ceramic tile, cooling tower
CTB	ceramic mosaic tile base, cement treated base
CTD	coated
CTR	center, cooling tower return
CU	condensing unit
CUB	cubicle curtain
CUH	cabinet unit heater
CULV	culvert
CURT	curtain
CW	cold water, clockwise
CWS	condenser water supply
CWR	condenser water return

D	diameter, delta
DA	deferred approval
DB	dry bulb
DBA	deformed bar anchor
DBL	double
DBT	dry bulb temperature
DC	direct current
DDC	direct digital control
DEM	demolition, demolish
DEPT	department
DET	detail
DF	drinking fountain, Douglas Fir
DI	deionized water
DIAG	diagonal
DIFF	difference
DIM	dimension
DISP	dispenser
DIP	ductile iron pipe
DIST	distribution, distilled
DL	dead load
DN	down
DP	dampproofing, data processing, double, differential pressure, dew point
DR	drain, doctor's register
DS	downspout
DSE	district structural engineer (OSHPD)
DT	dew point temperature, drain tile
DWH	domestic water heater
DWL	dowel
DWR	drawer
DX	direct expansion
E	east
EA	exhaust air, expansion anchor, each
EAT	entering air temperature
EE	each end
EEG	electro encephalograph
EEOR	electrical engineer of record (OSHPD)
EF	each face, exhaust fan
EFF	efficiency
EGS	ethylene glycol supply
EGR	ethylene glycol return
EIFS	exterior insulation finish system
EIMA	exterior insulation manufacturer's association
EJ	expansion joint
EJC	expansion joint cover
EKG	electro cardiograph
ELEC	electric, electrical
ELEV	elevator
EMB	embedded
EMER	emergency
EMG	paint process "EMG"
EM(I)	electro-magnetic (interference)
EMM	expanded metal mesh

EMS	energy management system
EMT	electrical metallic tubing
ENG	engine, engineer, engineering
ENGR	engineer
ENTR	entrance
EPDM	ethylene propylene diene monomer
EPR	ethylene propylene rubber
EQ	equal
EQUIP	equipment
ER	emergency room
E.S.	each side
ES	emergency shower
EST	estimate
ET	expansion tank
ETB	exterior top bar, emulsion treated base
EVT	equiviscous temperature
EW	each way
EWC	electric water cooler
EWT	entering water temperature
EXC	excavate, excavation
EXH	exhaust
EXP	expansion, exposed
EXST	existing
EXT	exterior
F	filters, fire, fahrenheit (degrees), paint process "F"
F to F	face to face
FA	fire alarm, face area
FCAN	full capacity above nominal
FCBN	full capacity below nominal
FCU	fan coil unit
FD	fire damper, floor drain
FDN	foundation
FDV	fire department valve
FE	fire extinguisher
FEC	fire extinguisher cabinet
FEM	female
FF	final filter
FH	fire hose, fire hydrant
FHC	fire hose cabinet
FHV	fire hose valve
FL	floor, flush, flow line
FLA	full load amps
FLEX	flexible
FLG	flooring
FLSO	fire life safety officer (OSHPD)
FLUOR	fluorescent
FM	frequency modulation radio
FOF	fuel oil fill
FOM	face of masonry
FOR	fuel oil return
FOS	fuel oil supply
FOV	fuel oil vent
FP	full penetration

FRP	fiberglass reinforced plastic
FS	far side, finished surface
FTG	footing
FURN	furnish
FU	furnace unit
FUT	future
FV	field verify
FVC	fire valve cabinet
FW	flammable waste
FWC	fabric wall covering
FXTR	fixture
G	gas
GA	gauge, gage
GALV	galvanize(d)
G.C.	glazed coating
GCWR	glycol chilled water return
GCWS	glycol chilled water supply
GEN	generator
G.F.	granular fill
GFI	ground fault interrupter
GFP	ground fault protection
GFCI	ground fault circuit interrupter
GFRC	glass fiber reinforced cement
GFRG	glass fiber reinforced gypsum
G.I. or GI	gastrointestinal
GI	galvanized iron
GL	glass, ground line, grade line
GRD/GND	ground
GRF	glass fiber reinforced fabrications
GRT	grout
GSB	gypsum sheathing board
GT	granite
GWB	gypsum wallboard
GWS	glycol water supply
GWR	glycol water return
GYP	gypsum
H	humidifier, height
HA	hot air
H2O	water
HC	handicapped, heating coil, house connection
HCFC	halogenated clouroflouro carbons
HCWS	hot chilled water supply
HCWR	hot chilled water return
HDWD	hardwood
HDWE	hardware
HG	mercury
HID	high intensity discharge
HK	hook
H.M.	hollow metal
HOA	hand/off/automatic switch
HORIZ	horizontal
HP	heat pump, horse power

HPS	high pressure sodium, high pressure steam supply
HPR	high pressure steam return
HR	handrail, hour
H-STAT	humidistat
HS	headed studs, high strength
HT	heat
HTG	heating
HTR	heater
HVAC	heating, ventilating and air conditioning
HW	hardware, hot water
HWC	hot water circulating
HWS	hot water supply
HWR	hot water return
HX	heat exchanger
HZ	hertz
IB	integral base
IC	intercom
IH	intake head
IMC	intermediate metal conduit
INSL	insulation
INWC	inches water column
IOR	inspector of record (OSHPD)
IPS	iron pipe size
IS	inside face
ITB	interior top bar
IU	induction unit
IV(T)	intravenous (track)
IWR	ice water return
IWS	ice water supply
JC	janitor's closet, junction chamber
KO	knockout
L	louver, lavatory, length
LAT	leaving air temperature
LD	linear diffuser, local depression
LE	left end
LED	light emitting diode
LIN	linear, lineal
LL	liveload
LLH	long leg horizontal
LLV	long leg vertical
LPR	low pressure steam return
LPS	low pressure steam supply, low pressure sodium
LR	linear return
LRA	locked rotor amps
LS	life safety/support
LSH	long slotted holes
LW	lightweight
LWT	leaving water temperature
M	meter
MA	mixed air

MACH	machine
MAR	marble
MAS	masonry
MATV	master antenna television
MB	main breaker
MBH	thousand BTUH
MCB	metal corner bead
MCC	motor control center
MCM	thousand circular mills
MCP	motor circuit protector
MD	manual damper
MECH	mechanical
MED	medicine, medical
MEOR	mechanical engineer or record (OSHPD)
MERC	mercury
MEZZ	mezzanine
MFD	manufactured
MFG	manufacturing
MFR	manufacturer
MGA	medical gas alarm
MH	manhole, metal hallide
MIN	minimum
MIR	mirror
MLDG	molding
MLO	main lugs only
MO	masonry opening
MOP	methods of procedure
MOD	modification, modify
MPS	medium pressure steam supply
MPR	medium pressure steam return
MS	mop sink
MTD	mounted
MTG	mounting
MTL	material
MULL	mullion
MVA	mega-volt amperes
MWP	metal wall panel
N	north, nitrogen
NAT	natural
NATL	national
NC	nurse call, normally closed
NDT	non-destructive testing
NEC	National Electrical Code
NEG	negative
NI	nickel
NIC	not in contract
NO	number, normally open, nitrous oxide
NOM	nominal
NORM	normal
NRC	noise reduction coefficient
N.S.	near side
NTS	not to scale

O	oxygen
OA	outside air
OC	on center, overcurrent
ODP	open drip proof
OF	outside face
OFCI	owner furnished, contractor installed
OPNG	opening
OR or O.R.	operating room
OSHPD	office of statewide health planning and development
OX	oxygen
P	pole, pump
PA	public address
PAD	post approval document (OSHPD)
PB	pegboard, push button, pull box
PBX	private board exchange
PD	pressure drop
PERF	perforate(d)
PERM	permanent
PF	prefilter, power factor
PFCC	power factor correction capacitor(s)
PFF	provision for future feeder
PH	phase pH chemical symbol for measure of acidity/alkalinity
PH/0	phase
PHC	preheat coil
PIN	policy intent notice (OSHPD)
PIV	post indicator valve
PL	property line, plate, pilot light, plastic laminate
PL-C	plastic laminate, (Chemsurf type)
PLAS	plaster
PLBG	plumbing
PNT	paint
POL	polish(ed)
PP	partial penetration, power pole
PPM	parts per million
PR	pair
PREFAB	prefabricated
PRL	parallel
PROJ	project, projection
PROP	property
PROT	protective, protection
PRT/PT	printer
PRV	pressure reducing valve
PS	plaster sink, projection screen
PT	pneumatic tube, point of tangency
PTD	painted
PTN	partition
PTS	pneumatic tube station
PVF	polyvinylidene fluoride
PVS	polyvinyl spiral (pipe)
PWD	plywood
QT	quarry tile
QTB	quarry tile base

QUAL	quality
R	radius, rankine
RA	return air, recycling agent
RAD	radiology
RCCP	reinforced concrete culvert pipe
RCO	regional compliance office (OSHPD)
RCPT	receptacle
RCV	receive, remote control valve
RD	roof drain, road
RE	right end
REC	recess, receiver
RECIRC	recirculate
REF	refer, reference
REFR	refrigerator
REL A	relief air
REM	remainder
REQD	required
RESIL	resilient
REV	revise, revision, reversing, revolutions
RF	return fan
RFG	roofing
RFI	request for information
RF(I)	radio frequency (interference)
RGS(C)	rigid galvanized steel (conduit)
RH	relative humidity
RHD	relief hood
RL	refrigerant liquid, roof drain leader
RM	room
RO	rough opening, reverse osmosis water
RS	refrigerant suction
RST	resilient stair tread
RTS	rubber topset base
RTV	room temperature vulcanized (silicone firestopping foam)
RV	reduced voltage, relief vent
RVT	resilient vinyl tile
RW	return wall register
RY	railway
S	sink, South, single, soil (piping), sprinkler (piping), paint process "S"
S2S	surfaced, 2 sides
S4S	surfaced, 4 sides
SA	shock absorber, supply air, sound attenuator
SALV	salvage
SAN	sanitary
SAT	saturation
SB	sitz bath
SC	sill cock, shading coefficient, sealed concrete
SCB	self-coved base
SCH	schedule
SCR	silicone controlled rectifier
SCW	soft cold water
SD	shower drain, smoke damper, shower door, storm drain
SECT	section

SECY	secretary
SEOR	structural engineer of record
SF	supply fan, square foot
SFD	smoke actuated fire damper
SGL	single
SH	shower, sensible heat
SHW	soft hot water
SIM	similar
SL	sliding, sea level
SLV	sleeve
S/N	solid neutral
SOL	solar
SP	standpipe, sump pump, static pressure, single pole
SPA	spaces
SPD	standpipe drain
SPDT	single pole double throw
SPH	Santa Paula Hospital
SQ	square
SR	sheet rubber, silver recovery
SRV	safety relief valve
SS	service sink, sanitary sewer, stainless steel
SSL	short slotted holes
SST	stainless steel sink
ST	steam trap, street, state
STA	station, stationary
START	starter
STB	stone base
STC	sound transmission coefficient
STDWT	standard weight
STIFF	stiffener
STOR	storage
STRUC	structural
SURF	surface
SUSP	suspend(ed)
SV	sheet vinyl
SV(N.S.)	sheet vinyl (non-slip)
SW	supply wall grille, switch
SWBD	switchboard
SX	steam exhaust
SYM	symbol, symmetrical
SYS	system
T	toilet, throw, top, tank
T & B	testing and balancing
T & G	tongue and groove
TA	tempered air, transfer air
TB	tackboard
TD	temperature differential
TEFC	totally enclosed fan cooled
TEMP	temperature, temporary
TER	terrazzo
TERM	terminal
TH	total heat
THRU	through

TIO	testing, inspection, and observation program
T/C	top of caisson, top of concrete
T/F	top of footing
T/W	top of wall
TP	toilet partition, total pressure
TRAN	transverse
TRT	treat, treatment, treated
TS	top of steel, traffic signal, transition structure
T-STAT	thermostat
TSP	total static pressure
TSU	thermal storage unit
TU	terminal unit
TV	television
TX	transformer
U	urinal
UC	undercut, undercounter
UH	unit heater
UHF	ultra high frequency
UNEX	unexcavated
UNFIN	unfinished
UNO	unless noted otherwise
UR	urinal
US	utility sink
UTIL	utility
UV	ultraviolet
V	valve, vent, volume, velocity, vacuum
VAC	vacuum
VAV	variable air volume
VB	vapor barrier, valve box
VCPX	vitrified clay pipe, extra strength
VCMC	Ventura County Medical Center
VCT	vinyl composition tile
VD	volume damper
VEH	vehicle
VENT	ventilat(ion) (or)
VEST	vestibule
VF	ventilation fan
VFD	variable frequency drive
VHF	very high frequency
VM	voltmeter
VOC	volatile organic compound
VP	vacuum pump, velocity pressure
VR	verified report (OSHPD)
VS	venturi station
VT	vinyl tile
VTR	vent thru roof
VWC	vinyl wall covering
W	west, wide flange, wall mounted, width, waste (piping), wye
W/	with
WA	wainscot
WB	wet bulb

WBT	wet bulb temperature
WC	water closet
WD	wood
WDW	window
WF	wide flange, wall fin
WG	water gauge
WH	water heater, wall hydrant
WI	wrought iron, width
WL	wind load
WLD	welded
WM	wattmeter, water meter
W/O	without
WP	waterproof(ing), weatherproof (electrical), working point, wall protection rub strips
WPD	water pressure drop
WS	wall switch, waterstop, water softener
WT	weight
WWC	wood wall covering
WWF	welded wire fabric
XFMR	transformer
XFP	exposed fireproofing
XLP	cross linked
XP	explosion proof
YD	yard
YH	yard hydrant
YR	year
Y	wye
XLP	cross linked polyethylene
ZA	zone annunciator
ZN	zone
1P	one pole
2P	double pole
1S	single speed
2S	two speed
1W	one winding
2W	two winding

1.04 ORGANIZATIONS AND STANDARDS

AABC	Associated Air Balance Council
ABMA	American Boiler Manufacturers Association
ADC	Air Diffusion Council
AIA	American Institute of Architects
AISI	American Iron Steel Institute
AMCA	Air Movement and Control Association
AGA	American Gas Association
ARI	Air Conditioning and Refrigeration Institute
ASA	Acoustical Society of America

BIA	Brick Institute of America
BOCA	Building Officials and Code Administration International, Inc.
CISPI	Cast Iron Soil Pipe Institute
CS	Commercial Standard (U.S.Department of Comm.)
CSI	Construction Specifications Institute
CTI	Cooling Tower Institute
DHSS	Department of Health and Social Services
EIA	Electronics Institute of America
EJMA	Expansion Joint Manufacturers Association
EIFS	Exterior Insulation Finish Systems Association
FM	Factory Mutual
FS	Federal Specification
HEI	Heat Exchanger Institute
HI	Hydraulic Institute
HYDI	Hydronics Institute
IBR	Institute of Boiler and Radiator Manufacturers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
MIL	Standard Military Specifications
MSS	Manufacturers Standardization Society
MCAA	Mechanical Contractors Association of America
NBC	National Building Code
NBFU	National Bureau of Fire Underwriters
NBS	National Bureau of Standards
NEBB	National Environmental Balancing Bureau
NEC	National Electrical Code
NECA	National Electrical Contractors Association
NECS	National Electrical Code Standards
PDI	Plumbing Drainage Institute
PPIC	Plumbing and Piping Industry Council, Inc., Los Angeles, CA
PS	Public Standard (U.S.Dept.of Comm.)
SBCC1	Southern Building Code Congress International, Inc.
SDI	Steel Deck Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association, Inc.
SAE	Society of Automotive Engineers
SPRI	Single Ply Roofing Institute
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Construction - 1991 Edition (also known as "green book")
TEMA	Tubular Exchanger Manufacturers Association
UBC	Uniform Building Code
UFC	Uniform Fire Code

UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code
VCAPCD	Ventura County Air Pollution Control District
VCSS	Ventura County Standard Specifications (See "General Provisions")

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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SECTION 01 42 16
DEFINITIONS

PART 1 - GENERAL

1.01 DESCRIPTION previous

A. General:

1. Basic definitions are included here to define terminology used throughout specifications.

2. Definitions given are in addition to terms defined in the General Provisions.

1.02 COMPLETION

A. Completion: The meaning of terms such as "substantial completion", "beneficial occupancy", "field completion", or any such terminology through which the opinion is expressed that contract Work is complete, shall be defined in Ventura County Standard Specification (VCSS) Part 1- General Provisions Sections 6-8, Completion, Acceptance and Warranty. No item warranty period covered under this contract shall commence until such completion.

1.03 THE CONTRACT

A. The Contract is defined in the General Provisions.

B. The Contract Documents shall not be construed to create a contractual relationship of any kind 1) between the Consultant and Contractor, 2) between the Agency and a Subcontractor or Sub-subcontractor or 3) between any persons or entities other than the Agency and Contractor.

1.04 FURNISH

A. Unless specifically limited in context, means furnishing to project site items specified, to include packaging, shipping, unloading, storing, protecting, unpacking, relocating and assembling if necessary.

1.05 INSTALL

A. Means incorporating in the Work including all necessary labor, materials, equipment and connections to perform work indicated and protection thereof after installation until Acceptance.

1.06 PROVIDE

A. Means furnish and install.

1.07 THE CONTRACTOR SHALL

A. In the interest of conciseness and an imperative writing style, any sentences, statements, and clauses used in the Specifications may exclude any form of the

verb "shall" which is normally expressed in verb phrase with verbs such as "furnish", "install", "provide", "perform", "construct", "erect", "comply", "apply", and "submit". Any such sentences, statements, and clauses are to be interpreted to include an applicable form of the phrase "the Contractor shall" and requirements described therein interpreted as mandatory elements of the Contract.

1.08 OBSERVATION

A. "Observe" or "Observation" means, "to become generally familiar with the process and quality of the work and to determine if the work is proceeding in general accordance with the Contract Documents based on what is plainly visible at the construction site, without the removal of materials or other construction that is in place."

1.09 ACCEPTABLE PERFORMANCE

A. A component or system being able to meet specified design parameters under actual load.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 51 01
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 TEMPORARY WATER

A. Make all arrangements, install equipment, piping, and outlets for an adequate supply of clean water for construction purposes.

1. Existing on-site water system may be used for temporary service if water is compatible with construction operations.

a. Verify with Agency conditions associated with use of on-site water system.

b. Provide temporary water line from designated point of connection to work area.

c. During construction operations, repair and/or replace, as required, any appurtenances damaged due to Contractor's operations.

2. Pay costs of installation of temporary system.

3. Agency to furnish water for the “Project Area” to Contractor at no cost.

4. Do not draw water from fire hydrants, except to extinguish a fire, without prior approval of water utility agency and Engineer.

1.02 TEMPORARY TOILETS

A. Provide temporary toilet facilities for use of all Contractor personnel involved in or necessary for performance of the Work. Facilities shall also be available for use by County personnel.

1. Provide facilities complying with local, State and Federal sanitary laws and regulations.

2. Maintain in clean, sanitary condition.

3. Provide adequate supplies of toilet paper, cleaning supplies, and other required items.

B. Permanent fixtures in adjacent buildings may not be used.

1.03 CONTRACTOR'S FIELD OFFICE AND STORAGE YARD

A. Contractor need not provide a field office for Agency use.

B. Prior to start of work, Contractor shall meet with Agency to define working, storing and traffic areas.

1. Except as specifically provided, working, and storing outside the areas approved by Engineer will not be permitted.

2. Arrange and locate temporary structures and sheds to avoid interfering with construction or adjacent residential area.

3. Contractor's working areas, staging, and storage areas shall not interfere with accessibility to adjacent buildings or parking areas.

4. Site Utilization Plan. Contractor shall, following agreement on working, storing and traffic areas, prepare a Site Utilization Plan indicating the agreed working, storing and traffic areas and submit six copies to the Agency.

1.04 TEMPORARY ENCLOSURES

A. Enclosure Fence: Before beginning the demolition, install an enclosure fence with lockable entrance gates. Enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.

B. Furnish and install temporary enclosures and door and window coverings required to protect existing building to remain from damage due to demolition and construction activities, vandalism or the elements.

1.05 TEMPORARY BARRICADES

A. Furnish, install and maintain all necessary temporary, barricades, trench and hole covers, warning lights and all other safety devices necessary to prevent injury to persons and damage to property.

END OF SECTION

SECTION 01 74 01
CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work includes:

1. Furnish all labor, materials, tools, equipment and services for all cleaning as indicated in accordance with provisions of Contract Documents.

2. Completely coordinate with all other Contract work.

1.02 FIRE PROTECTION

A. Store volatile waste in covered metal containers.

B. Remove from premises daily.

1.03 POLLUTION CONTROL

A. Conduct cleanup and disposal operations to comply with local ordinances and anti-pollution laws.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 DURING CONSTRUCTION

A. Clean up all waste materials, rubbish, and debris from site and access and dispose of off site.

B. Repair, patch, and touch-up marred surfaces to match adjacent finishes damaged by his own operations.

C. Schedule cleaning operations so that contaminants resulting from cleaning do not fall on wet painted surfaces.

D. Leave the Work "broom clean".

END OF SECTION

SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

2.1 SECTION REQUIREMENTS

A. Action Submittals:

1. Waste Management Plan: Submit plan within 30 days of date established for commencement of the Work.

B. Informational Submittals:

1. Waste Reduction Progress Reports: Submit concurrent with each Application for Payment. Include total quantity of waste, total quantity of waste salvaged and recycled, and percentage of total waste salvaged and recycled.
2. Records of Donations and Sales: Receipts for salvageable waste donated or sold to individuals and organizations. Indicate whether organization is tax exempt.
3. Recycling and Processing Facility Records: Manifests, weight tickets, receipts, and invoices.
4. Landfill and Incinerator Disposal Records: Manifests, weight tickets, receipts, and invoices.
5. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations.

C. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

D. Waste Management Conference: Conduct conference at Project site to comply with requirements for City of Ventura. Review methods and procedures related to waste management.

E. Waste Management Plan: Develop a waste management plan consisting of waste identification, waste reduction work plan, and cost/revenue analysis, unless otherwise directed by requirements of the City of Ventura. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.

1. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
2. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Achieve end-of-Project rates for salvage/recycling in compliance with requirements of the City of Ventura.

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement approved waste management plan. Provide handling, containers, storage,signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.

1. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

3.2 (NOT USED)

3.3 RECYCLING WASTE

A. General: Recycle paper and beverage containers used by on-site workers.

B. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a drylocation.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

C. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.

D. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.

1. Pulverize concrete to maximum 1-1/2-inch (38-mm) size.

E. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.

1. Pulverize masonry to maximum 1-1/2-inch (38-mm) size.
2. Clean and stack undamaged, whole masonry units on wood pallets.

F. Wood Materials:

1. Sort and stack reusable members according to size, type, and length. Separate lumber,engineered wood products, panel products, and treated wood materials.
2. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
3. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

G. Metals: Separate metals by type.

H. Asphalt Shingle Roofing: Remove and dispose of nails, staples, and accessories.

I. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.

J. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.

K. Metal Suspension System: Separate metal members including trim, and other metals from acoustical panels and tile and sort with other metals.

L. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.

1. Store clean, dry carpet and pad in a closed container or trailer provided by CarpetReclamation Agency or carpet recycler.

M. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.

N. Conduit: Reduce conduit to straight lengths and store by type and size.

3.4 DISPOSAL OF WASTE

A. Remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

B. Do not burn waste materials.

END OF SECTION

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 DESCRIPTION

A. Work includes:

1. Furnish and maintain at the project site one complete set each of the Field Documents and the Project Record Documents (as defined under B-2 and B-3 below).

2. Record revisions and actual as-built conditions as they occur on the Project Record Documents.

B. Definitions:

1. Documents required for construction: A complete set of all documents required by the Contract Documents, including but not limited to:

a. Contract drawings.

b. Project manual/specifications.

c. Addenda.

d. Project data.

e. Change orders.

f. Modifications.

2. Field Documents: Complete set of all documents required for construction (defined above).

a. To be used for day to day construction of project.

3. Project Record Documents: Complete separate set of all documents required for construction.

a. To be used only for recording periodic changes to Contract Documents.

b. Do not use these documents for construction of project. Maintain Project Record Documents in a neat, clean condition.

1.02 SUBMITTALS

A. Final Submittals:

1. Submit Project Record Documents, at completion of project. Submit to Agency with letter of transmittal.

2. Provide transmittal letter containing:

   a. Date.

   b. Project title.

   c. Contractor's name and address.

   d. Title and number of each Project Record Document.

   e. Certification that Project Record Documents submitted are complete and accurate.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 FIELD DOCUMENTS

A. Maintain minimum of one copy at project site.

B. Label each document "FIELD".

C. These documents will be used for construction of project.

D. Make documents available at all times for review by Engineer, Agency and authorities having jurisdiction.

3.02 PROJECT RECORD DOCUMENTS

A. Maintain one copy at project site.

B. Label each document "PROJECT RECORD".

C. Do not use these documents for construction purposes other than to record periodic changes to Contract Documents.

D. Make documents available at all times for review by Engineer, Agency and authorities having jurisdiction.

E. Maintain in clean, dry, legible condition.

F. Maintain Contract Drawings in stackable, enclosed file drawers designed to hold drawings horizontally.

   1. Provide index of contents of each file drawer on outside of drawer.

G. Maintain all other Project Records in stackable, enclosed file boxes designed to hold specific type of document.

   1. Provide index of contents of each box on outside of box.

3.03 POSTING AND UPDATING OF PROJECT RECORD DOCUMENTS

A. Post and update on weekly basis.

B. Contract drawings: Mark legibly to record actual construction including but not limited to:

1. Depths of various elements of foundations in relation to first floor level.

2. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.

3. Location of internal (to building) utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.

4. Field changes of dimension and detail.

5. Changes made by change order or other Agency instruction.

C. Project Manual/Specifications: Type on each section to record all changes including but not limited to:

1. Addenda.

2. Change order or field order.

3. Modifications to Contract.

4. Bind added sections into Project Manual/Specifications.

D. Do not conceal work for which information must be recorded until all required information is recorded on Project Record Documents.

E. Any work concealed prior to recording of required information must be uncovered at the Contractor's expense.

F. Once all required information is recorded on Project Record Documents, restore work at Contractor's expense.

END OF SECTION

DIVISION 02

EXISTING CONDITIONS

SECTION 02 41 00
DEMOLITION AND ABANDONMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section includes demolition of structures and removal and/or abandonment of utilities, fences, concrete improvements, asphalt pavement, and debris, as well as landscaping.

1.02 RELATED WORK SPECIFICED ELSEWHERE

A. Section 31 11 00, Clearing, Grubbing, Landscape & Tree Protection

B. Section 31 23 00, Earthwork

1.03 PROTECTION

A. Perform all demolition activities in such a manner as to minimize all hazards to personnel, property, and the public. Interference with traffic, surrounding properties, and utility service interruption shall be avoided.

B. Provide warning signs, barricades, temporary fences, lights, and other safeguards as needed.

C. Maintain safeguards around demolition and exposed excavations until demolition and removal is complete and excavations are filled. The Contractor shall utilize temporary chain link fencing with green privacy screening around the site to control ingress and egress for the duration of the Work.

D. Prevent the spread of dust and particles by spraying water as needed. Do not use water if it causes a safety hazard such as slippery surfaces or spread of contaminants. Street sweep the area surrounding the work site daily or as directed by the Owner's representative

E. Keep nearby hydrants clear and accessible at all times.

F. Contractor shall take precautions to avoid damage to existing items or surrounding improvements that shall remain in place, are to be reused, or shall be returned to the Owner. Any damaged items shall be repaired or replaced at no expense to the Owner.

G. The Plans may not represent all surface conditions at the site and adjoining areas. The known surface conditions are as indicated, and shall be compared with actual conditions before commencement of work. Existing utilities and drainage systems below grade are located from record drawings and from surface facilities such as manholes, valve boxes, area drains, and other structures visible from the surface. The Contractor's proposed methods of demolition shall be designed to allow for the possibility that the existing pipe, sewer, utility or other facility are in a location that differs from the Plans. If unidentified utilities are located during the work, the Contractor shall immediately notify the Owner's representative and shall protect the utility in place until it can be identified.

1.04 SUBMITTALS

A. Submit a comprehensive demolition plan describing the proposed sequence, methods, equipment, and disposal method for demolition and removals of all structures identified to be removed. Submit drawings identifying the phases of the demolition work.

B. Submit a description of proposed haul routes.

C. Submit all trucking and disposal tickets.

D. Submit proof of licensure and Cal/OSHA-DOSH registration for the asbestos Contractor performing removal of asbestos-containing materials.

E. Submit bills of lading for universal waste and statements from the recycler certifying recycling/disposal/destruction of identified wastes.

F. Submit copies of reports filed with the NRC for tritium-containing exit devices.

G. Submit materials to be used in utility abandonment.

1.05 MEASUREMENT AND PAYMENT

A. Payment for the work in this section shall be included as part of the applicable lump-sum or unit price bid amounts stated in the Proposal.

PART 2 - PRODUCTS

2.01 CONCRETE

A. Concrete used for utility abandonment and for thrust blocks shall be hand mix concrete, minimum 2,500 psi compressive strength, conforming to ASTM C387, and mixed in accordance with the manufacturer's recommendations. At the Contractor's election, ready mixed concrete may be utilized.

2.02 WATERLINE ABANDONMENT MATERIALS

A. The cap used for waterline abandonment shall be a mechanical joint cap conforming to AWWA C-110 or C-153 with a pressure rating of not less than 150 psi. Bolts and nuts shall be carbon steel as supplied by the fitting manufacturer.

B. Polyethylene sheeting shall conform to AWWA C105, except a double wrap shall be used.

PART 3 - EXECUTION

3.01 DEMOLITION

A. Demolition shall conform to ANSI A10.6 and the California Code of Regulations, Title 8 and Title 24 as applicable.

B. Completely demolish structures shown on the Plans to bottom of footings or the lowest point of the improvement. Completely remove all footings, shallow piping (less than 4 feet deep) and support structures.

C. Materials used for backfill of excavations formed in the course of demolition shall conform to Section 31 23 00.

D. Debris of all kinds shall become the property of the Contractor and shall be disposed of by the Contractor daily off the project area to avoid accumulation at the project site. Materials that are unable to be removed daily shall be stored in areas specified by the Engineer. Contractor shall dispose of debris in a manner that is compliant with applicable federal, State, and local regulations.

E. When utilities are encountered in the project area that are not shown on the Plans, the Contractor shall protect it in place and the Engineer shall be notified.

3.02 ABANDONMENT OF UTILITIES

A. Utilities shall be abandoned in the manner shown on the Plans. If not otherwise shown, abandonment of non-pressurized utilities shall consist of removal of a minimum of one foot of the utility at the property line and plugging the utility with a concrete plug extending a minimum of one foot into the interior of the pipe.

B. Gas shall be capped in accordance with the standards of Southern California Gas Company (Sempra Energy). Coordinate this work with Southern California Gas Company prior to performing the work.

C. For abandonment of electrical and telecommunications utilities, refer to the Plans for details.

D. The Contractor shall coordinate with the VENTURA WATER prior to abandoning the building's water service to determine any special requirements related to the abandonment and to coordinate water shutoff during the Work. The pipe being connected to and the fitting shall be disinfected in accordance with the City requirements and AWWA C651. The nuts and bolts of the fitting shall be completely coated in No-OX ID, and the fitting shall be double wrapped in polyethylene sheeting. Construct a thrust block conforming to City of Ventura Standard Detail No. 006.

E. The existing sewer lateral(s) to the structure shall be abandoned in accordance with the requirements of the VENTURA WATER.

F. Backfill shall conform to Section 31 23 00.

3.03 CLEAN UP

A. Upon completion of demolition work and removal of all debris (including special disposal or recycling as required by the Environmentally Regulated Materials Survey Report), leave site in a condition satisfactory to the Engineer.

B. Site shall be graded flat so there are no depressions greater than 8 inches in depth. Backfill of deeper sections (removed footing areas, utility excavations, etc.) shall be in accordance with Section 31 23 00.

END OF SECTION

SECTION 02 82 00
ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section includes the proper set-up, removal, decontamination, and disposal of the following asbestos-containing materials/asbestos-containing construction materials (ACMs/ACCMs) and Presumed ACMs (PACMs):

Refer to Appendix H for *Environmentally Regulated Materials Survey Report*, Dated December 1, 2020, for details of ACM/ACCM/PACM at the site.

Refer to Specifications, Drawings, and County direction for materials to be removed or otherwise impacted.

B. All quantities presented in the reports are approximate. Verify actual quantities and size by field observation, review of as built drawings or other suitable method.

1.2 SCOPE OF WORK

A. This section covers providing all labor, materials, facilities, equipment, services, employee training and testing, permits and agreements, and waste transport and disposal necessary to perform the work required for asbestos abatement in accordance with these specifications, drawings and notations, United States Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), National Institute of Safety and Health (NIOSH), State of California regulations, Ventura County Air Pollution Control District (VCAPCD), and all other Applicable Code Requirements.

B. The work specified herein is the abatement, clean-up and disposal of ACMs/ACCMs/PACMs by competent persons trained, knowledgeable, and qualified in the techniques of abatement, handling, and disposal of asbestos-containing and asbestos-contaminated materials, and the subsequent cleaning of contaminated areas; who comply with all Applicable Code Requirements; and who are capable and willing to perform the work according to the Contract Documents.

C. The work shall also include providing all necessary means of accessing work areas including removal and reinstallation of doors, temporary ramps, platforms and stairways.

1.3 DISPOSAL REQUIREMENTS

A. Document actual disposal of the waste at the designated landfill by completing Waste Manifest (s), and Waste Certification Form (s), and waste profiles, and by ensuring their proper completion by the County's Representative, waste transporter, and waste disposal site operator.

1. Within 24 hours of the time waste materials have been removed from the site, deliver all landfill receipts, trip tickets, manifests or other documentation of disposal to:

Ventura County Public Works
Engineering Services Department
800 S. Victoria Avenue, #1670
Ventura, CA 93009
Devi Nallamala
Devi.nallamala@ventura.org
(805) 654-4354

2. Utilize manifest (s) and waste profile (s) to accompany each load of waste that leaves the site. Include the name and address of the Generator, Contractor, pick-up site, disposal site, quantity of lead waste disposed, and the type of container utilized. Obtain signatures of the Generator's Representative, Transporter and the Disposal Site Operator as the responsibility of the material changes hands.

3. Secondary Transporters are not allowed unless approved in writing by the County's Representative.

B. Dispose of all friable materials deemed and/or presumed to contain or be contaminated with asbestos as hazardous regulated asbestos waste in a minimum of two (2) 6-mil polyethylene clear disposal bags. Utilize burlap, reinforced polyethylene bags, or other suitable containers to dispose of waste (e.g., wire lath, straps, etc.) that will rip, tear, or puncture disposal bags. Evacuate air from bags using a HEPA vacuum and seal bags using duct tape and the "Gooseneck" seal technique. Transport on a hazardous waste manifest. Label the outer bags or containers with the following:

1. United States Department of Transportation (USDOT) waste classification placards and the following description:

RQ Asbestos, 9, NA, 2212, PG III, NAERG 171

2. OSHA Warning Labels:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

3. California EPA Warning Labels

HAZARDOUS WASTE

STATE AND FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

IF FOUND, CONTACT THE NEAREST

POLICE OR PUBLIC SAFETY AUTHORITY

OF THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES

4. Generator Name and Address and Disposal Identification Number

C. Dispose of all non-friable materials and associated materials deemed to contain or be contaminated with asbestos as non-hazardous regulated asbestos waste in a minimum of two (2) 6-mil polyethylene clear disposal bags. Utilize burlap, reinforced polyethylene bags, or other suitable containers to dispose of waste (e.g., roofing, wire lath, straps, etc.) that will rip, tear, or puncture disposal bags. Evacuate air from bags using a HEPA vacuum and seal bags using duct tape and the “Gooseneck” seal technique. Transport on a non-hazardous waste manifest. Label the outer bags or containers with the following description:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

D. Prepare all waste transportation containers as follows:

1. Following removal from the project site, immediately load all asbestos waste into an enclosed cargo area of a truck, bin, or dumpster for transport to the landfill.

2. Immediately clean up any debris or residue observed on waste containers, carts, or surfaces outside the work area resulting from waste transport and loading activities using HEPA vacuums and/or wet methods as appropriate.

3. Provide an enclosed cargo area of a truck, bin or dumpster that is free of debris, and line with a minimum of one (1) layer of 6-mil fire-resistant polyethylene sheeting to prevent contamination from leaking containers.

4. Provide an enclosed cargo area of a truck, bin or dumpster with doors or tops that can be closed and locked to prevent vandalism or other disturbance of the packaged

asbestos waste and wind dispersion of asbestos fibers. Secure and lock the door or top all times with the exception of loading and unloading of asbestos waste.

5. Do not place loose, unbagged material or non-asbestos waste in the enclosed cargo areas of a truck, bin or dumpster.

6. Place bags do not throw them, into the waste containers to prevent splitting and the release of asbestos fibers.

7. Place drums or wrapped components on level surfaces in the cargo area and pack together to prevent shifting or tipping.

8. When parked at the project site, label the outside of the disposal truck, bin or dumpster with the following description:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

1.4 APPLICABLE STANDARDS AND GUIDELINES

A. All work conducted in conjunction with asbestos-related activities shall comply with all Applicable Code Requirements, including those listed below. The publications listed below are incorporated into this specification and shall be considered as if printed herein.

1. Code of Federal Regulations (CFR):
   a. 29 CFR §1926.050 — Stairways and Ladders
   b. 29 CFR §1910.134 — Respiratory Protection
   c. 29 CFR §1910.145 — Specifications for Accident Prevention Signs and Tags
   d. 29 CFR §1926.1101 — Construction Standard – Asbestos
   e. 29 CFR §1926.59 — Hazard Communication – Construction
   f. 29 CFR §1200 — Hazard Communication – General Industry
   g. 29 CFR §1926.450-454 — Scaffolds and Training
   h. 40 CFR §61 Subpart A — General Provisions (EPA)
   i. 40 CFR §61 Subpart M — National Emissions Standards for Hazardous Air Pollutants (EPA NESHAP)
   j. 40 CFR Part 763, Subpart E — EPA AHERA Regulations
   k. 49 CFR 172 — US Department of Transportation USDOT)

2. California Code of Regulations (CCR):
   a. 8 CCR §1529 — Construction Industry Safety Orders (CISO) Asbestos
   b. 8 CCR §5144 — Respiratory Protective Equipment
   c. 8 CCR §341.6 — Registration, Asbestos Related Work
   d. Title 22 — Hazardous Waste Handling

e. 8 CCR §5194 Hazard Communication
f. 8 CCR §3203 Injury and Illness Prevention Program

3. American National Standards Institute (ANSI) Publications:
   a. ANSI Z9.2 - 79: Fundamentals Governing the Design and Operation of Local Exhaust Systems
   b. ANSI Z88.2 - 80: Practices of Respiratory Protection

4. Cal. Lab, Code Sections 6501.5, 6501.8, and 6503.5.

5. American Society for Testing and Material (ASTM) Publication:
   a. E 1368-97 Standard Practice for Visual Inspection of Asbestos Abatement Projects
   b. D2986-95a Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test

6. Underwriters Laboratories, Inc. (UL) Publication:
   a. High Efficiency Particulate Air (HEPA) Air Filtration Units

7. Ventura County Air Pollution Control District (VCAPCD)
   a. Rule 62.7

1.5 SUBMITTALS AND NOTIFICATIONS

A. Furnish the following to the County's Representative at least 14 days prior to mobilization:

1. Registration with the Division of Occupational Safety and Health (DOSH) as an asbestos abatement Contractor per the requirements in 8 CCR § 341.6 through 341.14.

2. A marked-up, site-specific set of floor plans showing locations and lay-out of work area enclosures, decontamination units, air filtration devices, temporary fire protection, waste containers, utility (e.g., water, electrical sources), staging areas, and emergency exiting from the building.

3. Asbestos Removal Work Plan

4. Prior to job start, notify all appropriate agencies of the planned abatement activities, including:

   a. Ventura County Air Pollution Control District (VCAPCD)
   b. California Division of Occupational Safety and Health (DOSH)

5. Documentation of satisfactory employee, "competent person", and supervisor training per 29 CFR §1926.1101 and 8 CCR §1529, in addition to AHERA Worker or Supervision/Contractor Certification. Include copies of current (to within one year) supervisor/worker certificates showing the dates of training and training entity.

6. A certificate signed by a licensed physician certifying that each project supervisor/worker is physically able to wear the required respiratory protection and has been examined in accordance with the medical monitoring requirements of 29 CFR §1926.1101 and §CCR 1529 within the previous year.

7. Current qualitative or quantitative respirator fit testing and training records for all project supervisors/workers who meet the requirements of 29 CFR §1910.134, 29 CFR §1926.1101, 8 CCR §5144, and 8 CCR §1529.

8. The names, addresses, telephone numbers, and certification/registration numbers of the transporters and disposal site(s) proposed to be utilized for disposing of asbestos-containing/contaminated waste materials.

9. Written notification to the rental agency regarding intended use of any rental equipment, and a copy of same submitted to the County's Representative when rental equipment is to be used in abatement areas.

10. Carbon Monoxide (CO) Health & Safety Plan (HASP) prior to use of propane-powered or combustion engine equipment inside enclosed and/or regulated area. HASP must include the following key elements: (a) Scope; (b) Project personnel; (c) Description of hazards; (d) Responsibilities; (e) Hazard control procedures; (f) Hazard communication; (g) Details regarding monitoring equipment and procedures; (h) Emergency planning and response.

B. Submit to the County's Representative on a daily basis or whenever requested during the progression of the work, the items listed below. Maintain a copy of the items listed below on the project site at all times:

1. Copies of Contractor's respiratory protection program and injury and illness protection program.

2. Manufacturer's product data and Material Safety Data Sheets (MSDS) for all materials to be used as part of abatement activities.

3. VCAPCD permits/registration for all HEPA vacuums and negative air filter units to be used on the project site.

4. Supervisor's daily reports detailing abatement activities, worker and visitor access problems and corrective actions taken or proposed, injury reports, equipment breakdown, etc.

5. Logs documenting filter changes on HEPA vacuums, negative air filter units, and shower filters.

6. Initial air monitoring results for HEPA negative air filter unit exhaust as required by VCAPCD. Collect air samples on the first day of abatement activities.

7. Copies of all transport manifests with actual weight recorded in pounds or weighmasters certificates for all asbestos waste materials removed from the work area during the abatement process.

8. All personnel air sampling results in accordance with 29 CFR 1926.1101. Post within 24 hours after the collection of the samples.

C. Submit the following bound close-out documents to the County's Representative within 30 days following completion of the project:

1. Two Copies of Project Logbook as described in 1.6.A and B (cumulative).

PART 2 - PRODUCTS

2.1 MATERIALS

A. Store all materials at the project site or inside the work area that are subject to damage off the ground away from wet or damp surfaces, and under protective cover to prevent damage or contamination.

B. Do not use and remove all previously used, damaged and/or deteriorating materials from the premises.

C. Deliver materials in the original packages, containers, or bundles bearing the name of the manufacturer and brand name.

D. Utilize UL rated, flame-retardant, polyethylene sheeting (opaque in color), or spray-plastics, of 6-mil thickness or greater, in sizes to minimize the frequency of joints.

E. Utilize duct tape capable of sealing joints or adjacent sheets of plastic, facilitating attachment of plastic sheets to finished or unfinished surfaces of dissimilar materials, and adhering under both dry and wet conditions, including during the use of amended water.

F. Utilize methylene chloride free spray adhesive capable of providing additional sealing of joints, attachment of plastic sheeting to unfinished surfaces, and adhering under dry and wet conditions, including during the use of amended water. Do not use spray adhesive on vinyl or fabric surfaces to remain, or on masonry.

G. Utilize new (not previously used) minimum ½" in thickness, "C" grade, and certified as fire retardant plywood material for the construction of barriers, tunnels, and floor protection.

H. Utilize absorbent (e.g., kitty litter, sawdust) material capable of quickly and efficiently soaking up excess emulsifying solvent.

I. Utilize airtight and watertight containers to receive and retain any asbestos-containing or contaminated materials for storage until disposal at a disposal site. Label the containers as specified herein.

J. Utilize clear 6-mil thickness polyethylene bags, metal, fiberglass, or plastic drums with locking ring tops as the waste properties require, for waste storage or disposal.

K. Utilize warning signs in accordance with OSHA standard 29 CFR 1926.1101 paragraph k(1)(ii).

L. Provide any other signs, labels, warning, and posted instructions that are necessary to protect, inform, and warn people of the hazard from asbestos exposure, including signs required under California Health and Safety Code Section 25916 (Prop 65).

M. Utilize non-flammable encapsulating agents that shall adhere to the substrate from where asbestos is to be removed, and do not affect replacement materials ability to bond to the substrate, nor reduce the UL rating of the replacement material.

N. Utilize surfactant (wetting agent) mixture of 50/50 polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed with water in accordance with manufacturer's printed instructions ('amended water').

2.2 EQUIPMENT

A. Provide scaffolds and ladders of sufficient dimension and quantity so that all work surfaces can be easily and safely reached by workers and inspectors. Seal scaffold joints and ends with tape to prevent incursion of asbestos fibers. Comply with 29 CFR §1926.050 and 8 CCR §1629 and 1646 requirements when using ladders and scaffolding and incorporate guardrails, midrails, toerails, and wheel locks as required.

B. Provide a sufficient quantity of negative pressure air filtration units equipped with HEPA filtration and operated in accordance with ANSI Z9.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings. Calculate total air flow requirement as follows:

$$\text{Total ft}^3\text{/min} = \frac{\text{Vol. of work area (in ft}^3\text{)}}{\text{15 minutes}}$$

1. To calculate the number of units needed for the abatement:

$$\text{Number of units needed} = \frac{\text{[total ft}^3\text{/minutes]}}{\text{[capacity of unit in ft}^3\text{/minute]}}$$

C. Provide a single switch or set of switches for the emergency shutdown of all negative pressure equipment by fire department personnel. Locate the switches in a non-contaminated area near the clean exit of the decontamination unit. Identify using a sign with minimum 3" X 1/2" lettering on a contrasting background that read as follows: "NEGATIVE AIR MASTER SHUT OFF."

D. Furnish all tools (e.g., scrapers, wire cutters, nylon brushes, utility knives, saws, rubber or plastic dust pans, squeegees, or shovels, etc.), reinforced rubber water hoses, and filter replacements for vacuums, and filtration units as necessary.

E. Provide a calibrated incline or digital manometer to measure differential pressure between the inside and outside work areas. Record measurements a minimum of three times per work shift (beginning, middle and end) to ensure that a negative pressure of 0.02 inches of water is maintained.

F. Furnish airless spray equipment with pumps capable of providing 500 pounds per square inch (psi) at the nozzle, and a flow rate of two gallons per minute (gpm) for spraying amended water and encapsulant.

G. Furnish a sufficient supply of disposable mops, rags, scrub pads, HEPA vacuums with wand brush attachments, and sponges etc. for work area decontamination.

H. Furnish a sufficient supply of respirator cartridges capable of filtering both asbestos and other fumes.

I. Provide the necessary water filtration units, including filters to filter wastewater through a 0.5 micron final filter.

2.3 RESPIRATORY PROTECTION REQUIREMENTS

A. Furnish all workers, foremen, superintendents, authorized visitors, and inspectors entering regulated work areas with personally issued respiratory equipment approved by NIOSH. Supply respirator filters and replacements as necessary.

B. Determine the effectiveness of respiratory protection by evaluating job specific air monitoring data. Utilize appropriate respiratory protection based on air monitoring data to protect airborne exposures to workers, foremen, superintendents, authorized visitors, and inspectors.

C. At a minimum, utilize full-face, powered air purifying respirator (PAPRs) equipped with HEPA cartridges during removal of friable materials, except for glovebag removal operations.

D. At a minimum, utilize half-face, negative pressure air purifying respirators (APRs) equipped with HEPA cartridges during removal of non-friable materials, and work area clean up/detailing of friable materials.

E. At a minimum, utilize half-face, negative pressure APRs equipped with dual HEPA and organic vapor cartridges during removal of materials using solvents.

2.4 PERSONAL PROTECTIVE EQUIPMENT

A. Furnish all workers, foremen, superintendents, authorized visitors, and inspectors entering regulated work areas with disposable protective clothing consisting of full body coveralls, with head and foot coverings. Coveralls should be of adequate size and quality to accommodate movement without tearing and to prevent body contamination.

B. Furnish eye protection (contact lenses shall not be worn and spectacle kits which fit each personal respirator shall be issued), gloves, rubber boots, safety shoes and hard hats as required by job conditions and Applicable Code Requirements. Rubber boots, safety shoes, and hard hats shall be approved in accordance with ANSI Z89.1 1969 and ANSI Z41.1 1967.

C. Provide fall arrest equipment in accordance with CFR 1926.450.

D. Leave reusable footwear, hard-hats, and eye protection devices in the contaminated equipment room until the end of the asbestos-related work or place into polyethylene bags, seal, and store in a locked area or storage bin.

E. Discard and dispose of all disposable protective clothing as asbestos waste every time the wearer exits from the workspace to the outside through the decontamination facilities.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Review the Contract Documents and perform a pre-construction site investigation to satisfy oneself of the existing conditions affecting the work including:

1. All Applicable Code Requirements.

2. Pre-existing damage and areas of repair that will not be the responsibility of the Contractor upon completion of abatement.

3. The exact quantity of asbestos-containing/contaminated materials to be removed and those additional materials likely to be encountered during the course of work. All errors made in estimating, including costs and difficulties, are the sole responsibility of the Contractor, and shall not result in additional expense to the County.

4. The physical considerations and conditions of both the material and structure. These considerations include any obstacles or obstruction encountered in accessing or removing the material.

5. The amount and type of equipment needed to complete the job safely.

6. The availability of utilities.

7. The handling, storage, transportation, and disposal of the materials.

3.2 FIRE PROTECTION

A. Remove and properly dispose of all combustible rubbish and debris, including properly bagged asbestos at the end of each working day.

B. Utilize fire watch standing by with a 2A/60BC extinguisher during any work requiring open flame.

C. Meet any and all recommendations for job site safety as may be required by the County's Representative.

D. Maintain adequate fire extinguishers (Class ABC) ready for immediate use, distributed throughout the work area under abatement and in and about flammable temporary structures for the duration of the project. Provide a minimum of four (4) such approved fire extinguishers inside each work area, and others added at the rate of one (1) for every additional 1,000 square feet of work (or at a rate determined by Fire Safety Representative), in the work area, decontamination chamber, and adjacent to the work site.

1. Exception: Where the total abatement containment area is less than 1,000 square feet, provide two (2) (Class ABC) extinguishers.

2. Clearly demarcate all extinguisher locations with red tape.

3. Ensure that on site personnel are aware of the location and proper use of all extinguishers and other fire/life safety equipment.

E. Maintain a fire watch for a minimum of thirty (30) minutes after the cessation of each work shift.

1. Maintain in place, active and unobstructed all existing exterior fire hydrants and standpipes. Obtain approval from County's Representative for any alteration to this equipment.

F. Maintain fire/life safety information in the project log.

1. Prepare a statement at the conclusion of each workday, signed by Contractor, confirming that a survey of the work site has been made and that any unsafe fire/life safety conditions have been rectified.

G. Obtain approval of County's Representative prior to temporarily or permanently modifying fire rated partitions, doors, and other fire cutoffs.

H. Provide the following in containment areas greater than 1,000 square feet:

1. Five (5) extra large "tyvek" type protective coveralls with head and foot coverings, at the entrance to the work area, in a clean, labeled container, for the exclusive use of emergency personnel.

3.3 WORK AREA ACCESS

A. Restrict access to each work area to authorized, trained, and protected personnel. These may include the Contractor's employees, employees of Subcontractor's, the County's Representative, State and local inspectors, and any other designated individuals.

B. Report entry into the work area by unauthorized individuals immediately to the County's Representative.

C. Maintain a logbook in a centralized location on the job site. Anyone who enters a regulated work area shall record his or her name, social security number, and affiliation.

D. Access each work area through a single worker decontamination system per work area.

E. Block or lock all other means of access (doors, windows, hallways, non-designated elevators, non-designated fire exits, etc.) to prevent entry to or exit from the work area. Maintain access through the waste load-out (during the removal of containerized asbestos waste from the work area), and emergency exits in case of fire or accident.

F. Provide all necessary means of accessing work areas including removal and reinstallation of doors, temporary ramps, platforms and stairways.

G. Provide project site security in order to protect the site preparation and equipment.

H. Work Hours:

1. The Contractor shall confine operations at the Project to the areas and within the hours permitted by all codes, laws, ordinances, permits, the Contract Documents, the County's Representative, or the County's On-Site Representative, and shall not unreasonably encumber the Project Site or the adjoining sidewalks, streets and alleyways with any material, equipment, or debris.

3.4 DECONTAMINATION ENCLOSURE SYSTEMS

A. Unless otherwise authorized by County's Representative, provide a three-stage decontamination unit attached to each Class I work area. Each decontamination unit shall be constructed of rigid framing materials covered with two layers of opaque polyethylene sheeting. Construct three-stage decontamination units as follows:

1. A clean room separated from the shower room by a weighted curtained doorway; 2) A shower room separated from the equipment room by a weighted curtained doorway; 3) An equipment/dirty room separated from the work area by a weighted curtained doorway or airlock. Provide a waste container for discarded coveralls, towels, and spent respirator cartridges in the equipment room.

2. Provide a staging area around the decontamination facility of sufficient size for workers to change in and out of street clothes and protective clothing, as well as for lockers (for the storage of street clothes and worker/visitor possessions) uncontaminated disposable protective clothing, towels, respirators, and equipment. Provide opaque polyethylene sheeting or other suitable material to provide privacy.

3. Provide clean shower facilities (portable metal showers or equal) with hot and cold water adjustable in the shower, and so arranged as to provide complete showering of workers and visitors as they exit from the contaminated area. Furnish an adequate supply of soap, shampoo, and towels in the shower at all times. Make provisions to prevent contaminated water run-off from the shower room (e.g., a tub).

4. Provide one shower per 10 full-shift abatement workers or Subcontractor's personnel calculated on the basis of the largest shift.

5. Filter all water utilized during this project and contaminated by asbestos. Utilize a filtering system containing a series of several filters (0.5 – 1.0 micron capability) with progressively smaller pore sizes to avoid rapid clogging of the filtration system by large particles. Discharge filtered wastewater to a sanitary sewer, or as otherwise acceptable to local regulatory discretion. Dispose of used filters as asbestos waste.

B. Provide a two-stage waste decontamination unit attached to each Class II work area. Each decontamination unit shall be constructed of rigid framing materials covered with 2 layers of opaque polyethylene sheeting. Construct two-stage decontamination units as follows:

1. A clean room separated from the washroom by a weighted curtained doorway.

2. A washroom separated from work area by a weighted curtained doorway or airlock.

3. Equip the washroom with the facilities (e.g., water hose or airless sprayer) to wash and wipe the outside of the waste bags or containers prior to removing them from the work area for transportation to the landfill. Make provisions to prevent any contaminated water run-off from the washroom by providing a child's swimming pool or equivalent water collection device.

3.5 WORKPLACE ENTRY AND EXIT PROCEDURES

A. Post the following information in central staging area outside the decontamination facility:

1. Telephone/cellular phone numbers/pager numbers for local hospital, location of hospital and/or emergency personnel, local fire department, County's Representative, and Contractor's Representatives.

2. Copies of notifications to regulatory agencies as required herein.

3. Employee daily sign-in/out log.

4. Employee/visitor work area entry/exit log.

5. Cal/OSHA required postings.

6. Logs documenting filter changes on HEPA vacuums, negative air filter units, and shower filters.

7. VCAPCD HEPA vacuum and air filtration unit permits/registrations.

8. Initial air monitoring results for HEPA negative air filter unit exhaust as required by VCAPCD Rule 62.7 and permit requirements. Collect air samples on the first day of abatement activities.

9. All personnel air sampling results in accordance with 29 CFR §1926.1101.

B. Personnel Entry and Exit:

1. Furnish all personnel and authorized visitors throughout the abatement process with the specified protective clothing and gear. Ensure that all personnel entering and leaving the work area abide by the following procedures:

   a. Enter the abatement work area through the worker decontamination facility.

   b. Ensure that all personnel, before entering the work area, have read and are familiar with all posted Applicable Code Requirements, personal protection requirements (including workplace entry and exit procedures), and emergency procedures. Furnish a sign off sheet to acknowledge that these have been reviewed and understood by all personnel prior to entry.

   c. Remove all street clothes and appropriately don personal protective equipment and respiratory protection.

   d. Wearing designated personal protective equipment, workers and visitors proceed to the work area.

   e. No smoking, eating, drinking, chewing of gum or tobacco, application of cosmetics, or wearing of jewelry while inside the work area.

   f. Removal of gross contamination from the outside of respirators and protective clothing prior to leaving the work area by brushing and/or HEPA-vacuuming procedures. Provide a walk-off pan (e.g., small children swimming pool filled with water) for workers/visitors to clean off foot coverings prior to leaving the work area and entering the dirty room.

   g. Proceed to the dirty room of the decontamination enclosure and remove protective coveralls.

   h. Store reusable, contaminated footwear and other contaminated equipment in sealed containers in a designated “contaminated” area when not in use in the work area.

i. Wash to remove asbestos contamination.

j. After washing and drying off, proceed to the clean room and don clean disposable clothing for re-entry into the work area or street clothes.

C. Waste Load-Out Procedures

1. Ensure that all waste leaving the work area is done in accordance with the following procedures:

a. Transport containerized asbestos contaminated waste out of the work area through the waste decontamination facility.

b. Utilize two teams of workers, an "inside" team and an "outside" team for waste load-out procedures.

c. The inside team, wearing appropriate protective clothing and respirators:

(1) Evacuates the air from the bags using a HEPA vacuum, seals bags using duct tape, and then passes bags through to the waste decontamination facility washroom.
(2) Cleans the outside, including the bottoms, of properly labeled containers (bags, drums, or wrapped components) using water hoses or airless sprayers and wet wiping techniques, and then transports the containers into the waste decontamination facility clean room.

d. The outside team, wearing protective clothing and respirators:

(1) Places bags in clean, labeled, 6-mil polyethylene bags, seals the bags using duct tape and the “Gooseneck” seal technique, and then removes the bags from the waste decontamination facility clean room.
(2) Encloses the wrapped components in clean, labeled, 6-mil polyethylene sheeting and then removes them from the waste decontamination facility clean room.
(3) Removes cleaned drums from the waste decontamination facility clean room.

e. Transport the waste to the waste container (s) via wheelbarrow-type carts lined with polyethylene sheeting and covered with a secondary layer of sheeting when full. Transport waste to the waste container along unoccupied routes pre-approved by County’s Representative, and as indicated in Contractor’s submittals.

3.6 EXPOSURE CONTROLS

A. Provide the following exposure controls for the work areas:

1. The means to provide supply air to and exhaust air from the work area to maintain negative pressure. Operate on a 24-hour basis throughout asbestos-related work until final air clearance is achieved.

2. Maintain a static negative air pressure of 0.02 inches (minimum) water at all times in the work area during abatement to ensure that contaminated air in the work area does not migrate to uncontaminated areas.

3. Provide and initiate operation of HEPA-filtered ventilation units as needed to furnish an air change in the work area a minimum of every 15 minutes. Provide a sufficient number of supply and exhaust units to create a stream of air away from the faces of the workers, and in such a way as to not damage or compromise the integrity of the plastic isolation barriers.

4. Maintain at all times, at minimum, two HEPA-filtered ventilation units per work area, or four per floor, as back-ups in case of failure of any operating units or as means to maintain static negative air pressure.

5. Provide ventilation units at the opposite end of the decontamination facility in order provide air flow across the work area.

6. Provide an on-site static pressure strip-recording manometer with an audible alarm or fluid incline manometer for all work areas. Submit tape chart recordings or measurements daily to the County's Representative.

7. Seal all openings made in the enclosure system made to accommodate ventilation units airtight with tape and/or caulking as needed.

8. If more than one unit is installed, turn the units on one at a time, checking the integrity of wall barriers for secure attachment and need for additional reinforcement.

9. On electric power failure, stop all work immediately, do not resume until power is restored and exhaust units are operating again. On extended power failure, (longer than 1 hour), seal the decontamination facilities air tight after the evacuation of personnel from the work area.

10. Exhaust HEPA filtered ventilation units to the outside of the building no closer than fifty (50) feet to any building HVAC supply vents or other air system intakes, or entrances/exits of occupied areas.

3.7 MAINTENANCE OF WORKPLACE BARRIERS AND WORKER DECONTAMINATION ENCLOSURE SYSTEMS

A. Inspect all polyethylene barriers inside the work area, in the worker decontamination enclosure system, and at partitions constructed to isolate the work area from occupied areas, before the start of each shift and at least twice daily during the shift. Document inspections and observations in the daily project log.

B. Repair damage and defects in the enclosure system immediately upon discovery.

C. If visible material is observed outside of the work area or if damage occurs to barriers, immediately stop work, repair barriers, and clean up debris/residue using appropriate HEPA vacuuming and wet wiping procedures.

D. If air samples collected outside of the work area during abatement activities indicate airborne fiber concentrations greater than 0.010 f/cc or pre-measured background levels (whichever is higher), stop work immediately for inspection and repair of barriers. Cleanup of surfaces outside of the work area, using HEPA vacuums or wet wiping techniques, as necessary.

3.8 INITIAL CLEANING

A. Pre-clean all movable objects in the work area using HEPA vacuuming or wet-cleaning methods as necessary to remove all visible dust and debris. After cleaning, remove objects from the work area and dispose or store in an uncontaminated location as approved by County's Representative.

B. Pre-clean all fixed objects (e.g., walls, floors, etc.) in the work area using HEPA vacuuming or wet-cleaning methods as necessary to remove all visible dust and debris. After cleaning, protect with polyethylene sheeting as specified herein.

C. Dispose of all suspect debris and contaminated filters, mop heads, cloths, etc. used to perform pre-cleaning work in sealed, leak-proof containers.

3.9 WORK AREA PREPARATION

A. General:

1. Warning Signs:

a. Post caution signs meeting the specifications of 29 CFR §1926.1101 K (2) at appropriate approaches to the work area where airborne concentrations of asbestos may exceed ambient background levels. Post signs a distance sufficiently far enough away from the work area so as to permit an employee or visitor to read the sign and take the necessary protective measures to avoid exposure. Post additional signs following construction of workplace enclosure barriers at all entrances and exits to the work area.

2. Electrical Equipment:

a. Use methods, as necessary, to protect stationary electrical equipment including panel boards, and transformers, scheduled to remain energized.

b. Obtain County's Representative's approval prior to any utility shutdown in accordance with appropriate specifications.

3. Temporary electrical service:

a. Provide and maintain all necessary temporary ground fault electrical power service, distribution, equipment, connections, etc., as necessary for the Work. Before final acceptance, remove all temporary equipment and connections installed in a manner approved by County's Representative.

b. Coordinate with the County's Representative, the shutdown, lock out and isolation of electrical systems. Label electrical conduits or cabling running through the work area that shall remain in operation during the abatement.

c. Make temporary service connections to the existing electrical distribution system at a point which shall be made available by the County's Representative.

(1) Provide spider boxes or similar devices to furnish power from the panelboard to the work area for small tools and lighting. Power for larger equipment and lighting for use inside the work area during abatement may be taken directly from panelboards as approved by County's Representative.
(2) Do not allow the load connected to any circuit to exceed 25% of the feeder capacity as labeled on the panel board.

(3) Do not disturb cables and conductors which may prevent closing of fire-labeled doors.
(4) Provide ground fault interrupter outlets in order to allow for temporary electric power hook ups.
(5) Furnish an electrician or electrical Subcontractor with a current State of California Contractor's C-10 (Electrical - General) license in order to accomplish required electrical hook ups and equipment installations.
(6) Comply with NEMA, MECA and UL standards and CAL/OSHA requirements.

4. Temporary Lighting:

a. Provide “string type” general service incandescent lighting with guarded cages and portable plug-in task lighting of sufficient wattage throughout the work area to supply a 20 foot candle minimum light level.

b. Temporary lighting may be used in combination with natural lighting to achieve minimum light level.

5. HVAC Systems:

a. Coordinate with the County’s Representative, the shutdown, lock out and isolation of heating, cooling, and ventilating air systems. Maintain shutdown throughout the abatement to prevent contamination and fiber dispersal to other areas of the structure and outside the building.

b. Seal all intake and exhaust vents leading from the work area with two layers of 6-mil polyethylene sheeting and duct tape. Seal seams in HVAC components that pass through the work area prior to covering with poly sheeting.

B. Full-Containments (Including removal of flooring materials using mechanical means): Utilize full containment methodologies for the removal of regulated asbestos-containing materials (RACM) and friable materials, or material that will become friable during removal:

1. Remove non-fixed items from the work area and dispose or store in an uncontaminated location as approved by the County’s Representative.

2. Remove and dispose of baseboards, carpeting, tack strips, floor monuments, hardware, partitions, ceiling tiles adhered to plaster or drywall substrates, and other items etc. as required to access and remove ACMs.

3. Remove lighting fixtures and remove light tubes and (PCBs) polychlorinated biphenyl light ballasts and dispose.

4. Provide pre-cut plywood manifolds in windows or louvers at point (s) where HEPA exhaust ducts exit the building. Paint the exterior of the plywood beige. Caulk and seal the plywood manifolds airtight.

5. Provide ladders, scaffolds, temporary stairways to access the work areas and fall protection in accordance with 29 CFR §1926.050, and 450-454.

6. Provide critical barriers of, at minimum, two layers of 6-mil polyethylene sheeting individually secured with spray adhesive (except for where masonry surfaces exist), and then taped over all openings leading from the work area including windows, doors, diffusers, etc.

7. Prior to the installation of polyethylene critical barriers at openings that lead to the exterior of the building, and that shall not be used as emergency egress, provide minimum ½" thickness plywood material and rigid framing.

8. Identify and seal with firestop, spray foam, or equal, all floor/ceiling penetrations, including drains, cracks, expansion joints, cable runs, conduits, pipes runs or ducts.

9. Connect worker/waste decontamination facilities and HEPA filtration devices as per Paragraphs 3.4 and 3.6 above.

10. Cover all remaining non-removable items and surfaces in the work area with two layers of 6-mil polyethylene sheeting taped securely.

11. Demarcate emergency exits and path of travel to emergency exits with bright colored arrows or spray paint, located approximately 30" above the floor.

12. Provide sufficient view ports to allow persons outside the work area to view all parts of the work area.

13. Cover walls, floors, and ceilings that will not be removed in the work area with two layers of 6-mil polyethylene sheeting. Secure wall sheeting so as to prevent it from falling away from walls. This may require additional support/attachments when negative pressure ventilation systems are turned on. Tightly seal polyethylene sheeting at both the top and bottom of wall.

14. Provide a 6-mil drop cloth beneath areas of gross removal of friable materials.

15. Tape each layer of polyethylene sheeting directly to the wall. Do not tape to each other.

16. Overlap wall and floor sheeting by at least 12 inches beyond the wall/floor joint.

17. Size plastic to minimize seams. Stagger successive layers of sheeting to reduce the potential for water to penetrate beyond the floor sheeting. Do not locate any seams at wall/floor joints.

18. Separate seams by at least a distance of six feet. Overlap all seams by a minimum of 12 inches, and secure by first applying spray adhesive and then firmly securing with tape.

19. After installation and operation of critical barriers, decontamination facilities, and HEPA filtration devices, and wall and floor coverings, request, receive, and pass a pre-abatement visual inspection as arranged by the County's Representative prior to initiation of abatement activities. Operate HEPA filtration devices for at minimum two hours prior to requesting a pre-abatement visual inspection.

C. Non-Friable Materials (Including removal of flooring materials using non-mechanical means):

1. Remove non-fixed items from the work area and dispose or store in an uncontaminated location as approved by the County's Representative.

2. Remove and dispose of baseboards, carpeting, tack strips, floor monuments, hardware, wall partitions, ceilings, and other items etc. as required to access and floor tiles, mastics, leveling compounds, and ACCM walls.

3. Provide pre-cut plywood manifolds in windows or louvers at point (s) where HEPA exhaust ducts exit the building. Paint the exterior of the plywood beige. Caulk and seal the plywood manifolds airtight.

4. Provide ladders, scaffolds, temporary stairways to access the work areas and fall protection in accordance with 29 CFR §1926.050, and 450-454.

5. Provide critical barriers of, at minimum, two layers of 6-mil polyethylene sheeting individually secured with spray adhesive (except for where masonry surfaces exist), and then taped over all openings leading from the work area including windows, doors, diffusers, etc.

6. Prior to the installation of polyethylene critical barriers at openings that lead to the exterior of the building, and that shall not be used as emergency egress, provide minimum ½" thickness plywood material and rigid framing.

7. Identify and seal with firestop, spray foam, or equal, all floor/ceiling penetrations, including drains, cracks, expansion joints, cable runs, conduits, pipes runs or ducts.

8. Connect worker/waste decontamination facilities and HEPA filtration devices as per Paragraphs 3.4 and 3.6 above.

9. Demarcate emergency exits and path of travel to emergency exits with bright colored arrows or spray paint, located approximately 30" above the floor.

10. Cover all remaining non-removable items in the work area with two layers of 6-mil polyethylene sheeting taped securely.

11. Cover walls in the work area with one layer of 6-mil polyethylene sheeting "splash guards" a minimum of 72" in height, from the floor up the wall. Secure wall sheeting so as to prevent it from falling away from walls. This may require additional support/attachments when negative pressure ventilation systems are turned on. Tightly seal polyethylene sheeting at both the top and bottom of wall.

12. Size plastic to minimize seams. Separate seams by at least a distance of six feet. Overlap all seams by a minimum of 12 inches, and secure by first applying spray adhesive and then firmly securing with tape.

13. After installation and operation of critical barriers, decontamination facilities, and HEPA filtration devices, and wall coverings, request, receive, and pass a pre-abatement visual inspection as arranged by the County's Representative prior to initiation of removal activities. Operate HEPA filtration devices for at minimum two hours prior to requesting a pre-abatement visual inspection.

D. Glove Bag Removal Areas (Removal of Pipe/Fitting Insulation):

1. Remove non-fixed items from the work area and dispose or store in an uncontaminated location as approved by the County's Representative.

2. Provide ladders, scaffolds, temporary stairways to access the work areas and fall protection in accordance with 29 CFR §1926.050, and 450-454.

3. Provide critical barriers of, at minimum, two layers of 6-mil polyethylene sheeting individually secured with spray adhesive (except for where masonry surfaces exist), and

then taped over all openings leading from the work area including windows, doors, diffusers, etc.

4. Connect worker/waste decontamination facilities and HEPA filtration devices as per Paragraphs 3.4 above.

5. Provide a 6-mil drop cloth beneath areas of glove bag removal.

6. Demarcate emergency exits and path of travel to emergency exits with bright colored arrows or spray paint, located approximately 30” above the floor.

7. Provide glove bags so that they completely cover the pipe/fitting circumference.

8. Smoke test glove bags for leaks prior to removal. Repair any leaks found.

9. Provide a HEPA vacuum to evacuate air from glove bags prior to removing bags for the pipe/fitting.

10. Provide “hudson” type garden sprayers to apply amended water during glove bag removal.

11. After installation and operation of critical barriers and decontamination facilities, pass a pre-abatement visual inspection as arranged by the County’s Representative prior to initiation of abatement activities.

E. Roofing Materials Removal Areas:

1. Install critical barriers of, at minimum, two layers of 6-mil polyethylene sheeting individually secured with spray adhesive (except for where masonry surfaces exist), and then taped over all openings leading from the work area including windows, doors, diffusers, etc.

2. Cover ground immediately adjacent to the exterior walls where roofing materials are to be removed with a minimum of one layer of 6-mil fire-resistant polyethylene sheeting extending a minimum of 10’ beyond the surface to be removed or the building perimeter.

3. Provide ladders, scaffolds, temporary stairways to access the work areas and fall protection in accordance with 29 CFR §1926.050, and 450-454.

4. Connect worker/waste decontamination facilities as per 3.4 above.

5. Provide wetting devices such as hose and wand sprayers or airless sprayers to apply amended water during removal. “Hudson” type garden sprayers may be used, but only to supplement specified wetting devices.

6. After installation and operation of critical barriers and decontamination facilities, request, receive, and pass a pre-abatement visual inspection from County’s Representative prior to initiation of abatement activities.

3.10 REMOVAL OF ASBESTOS-CONTAINING MATERIALS/ASBESTOS-CONTAINING CONSTRUCTION MATERIALS

A. Full-Containments (Including removal of flooring materials using mechanical means and fireproofing):

1. Properly prepare work area as described in Paragraph 3.9 herein.

2. Wet all asbestos-containing material/asbestos-containing construction material with an amended water solution. Utilize equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Saturate the material to the substrate; however, do not allow excessive water to accumulate in the work area. Keep all removed material wet until it can be containerized for disposal.

3. Maintain high humidity in the work area by regular misting until all visible material has been cleaned up.

4. Once saturated, remove all asbestos-containing materials/asbestos-containing construction materials. Remove in manageable sections using hand-held tools such as scrapers, wire cutters, abrasive pads, sponges, and rags.

5. Utilize mechanical means (e.g., nylon bushes, sponges, and pads, rags, pole/hand razor scrapers, and/or mechanical rotary buffers with abrasive pads to remove vinyl floor tiles, and mastics).

6. Promptly bag all removed materials. Periodically spray the work area to maintain in a wet condition.

7. Seal containerized waste (6-mil polyethylene bags) when full. Do not overfill bags since wet material can be exceedingly heavy. Securely seal containers to prevent accidental opening and leakage (i.e., tying tops of bags in an overhand knot or by taping in “gooseneck” fashion, never with wire or cord).

8. Package sharp-edge asbestos waste components (e.g., nails, screws, metal lath, tin sheeting, wires, vinyl floor tiles, etc.), that will tear polyethylene bags in burlap, reinforced polyethylene bags, or drums for disposal.

9. Do no drop or throw material that is removed and bagged to ground level. Utilize a forklift or equal to lower waste to ground level.

10. Detail clean all surfaces to remain in the work area including utility lines, hangars, conduit, junction boxes, and sprinkler lines.

11. Clean up work areas as described in Paragraphs 3.11 and 3.12 herein.

B. Non-Friable Material Removal Areas (Including removal of flooring materials using non-mechanical means):

1. Properly prepare work areas as described in Paragraph 3.9 herein.

2. Wet all asbestos-containing material/asbestos-containing construction material with an amended water solution. Utilize equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Saturate

the material to the substrate; however, do not allow excessive water to accumulate in the work area. Keep all removed material wet until it can be containerized for disposal.

3. Maintain high humidity in the work area by regular misting until all visible material has been cleaned up.

4. Promptly bag all removed materials. Periodically spray work area to maintain in a wet condition.

5. Seal containerized waste (6-mil polyethylene bags) when full. Do not overfill bags since wet material can be exceedingly heavy. Securely seal containers to prevent accidental opening and leakage (i.e., tying tops of bags in an overhand knot or by taping in gooseneck fashion, never with wire or cord).

6. Package floor tiles that will tear polyethylene bags in burlap, reinforced polyethylene bags, or drums for disposal.

7. Do no drop or throw material that is removed and bagged to ground level. Utilize a forklift or equal to lower waste to ground level.

8. Use manual means to remove ACCM wall/ceiling joint compound. Promptly bag removed material.

9. Use manual means (e.g., pole scrapers) to remove all vinyl floor tiles. Promptly bag removed tiles.

10. Apply solvent with a garden-type sprayer. Utilize non-mechanical means (e.g., nylon brushes, sponges, pads, rags, pole/hand razor scrapers) to remove the mastic. Apply solvents in strict accordance with the manufacturer's instructions and in a quantity sufficient to liquefy the mastic, being careful not to allow the solvent or liquefied mastic to pool or run off. Do not apply or allow the solvent to accumulate adjacent to fabric finishes, drywall, or wood materials.

11. Remove floor tile, mastic, residue and leveling compounds down to the bare slab. Remove mastic to the approval of the County's Representative.

12. Detail clean abated surfaces using HEPA-vacuuming and wet-wiping methods. Dry sweeping is not allowed.

13. Wet mop floors with Pine Sol™, Tide® or equal followed by water where emulsifying solvent was used.

14. Do not apply a post abatement lock down encapsulant to abated surfaces so as not to interfere with adhesion of replacement flooring materials.

15. Clean up work areas as described in Paragraph 3.11 and 3.12 herein.

C. Glove bag Removal Areas:

1. Properly prepare work areas as described in Paragraph 3.9 herein.

2. Cut TSI from the substrate in manageable sections. Wet materials can become exceedingly heavy; do not overfill glove bags.

3. Clean substrate using nylon brushes/scrub pads as needed.

4. Spray-apply a post-abatement lock down encapsulant to the abated pipes.

5. Clean and rinse tools inside the glove bag. Place tools in the reversed arm of the glove bag and seal.

6. Evacuate the air from the glove bag using a HEPA-filtered vacuum cleaner prior to tying off and removing the glove bag from the pipe. Immediately place the removed glove bag inside a secondary disposal bag.

7. Clean up work areas as per Paragraph 3.11 and 3.12 herein.

3.11 CLEAN-UP PROCEDURES – GENERAL

A. Promptly clean up visible accumulations of loose asbestos-containing or contaminated materials or keep moist until bagged.

B. Promptly clean up spills or pools of emulsifying solvent and/or liquefied mastic with an absorbent material.

C. Collect asbestos-containing or contaminated materials utilizing rubber or plastic dust pans, shovels, and squeegees or HEPA vacuums.

D. Do not use metal shovels or brooms within the work area.

E. Clean up visible accumulations of asbestos-containing or contaminated materials from all surfaces, and spills or pools of emulsifying solvent in the work area on a daily basis.

F. Wet wipe all surfaces in the work area using rags, mops, sponges, and other equipment as needed to remove all visible residue.

G. Detail clean surfaces from where asbestos-containing materials/asbestos-containing construction materials have been removed using nylon brushes/scrub pads, sponges, and rags and other equipment as needed to remove all visible residue.

3.12 FINAL CLEANING

A. Remove all containerized waste from the work area and decontamination facilities.

B. Remove all tools and equipment (except equipment needed to complete final cleanings, air filtration units, critical barriers, polyethylene sheeting) from the work area and properly decontaminate in the decontamination facility.

C. Non-Friable Materials Removal Areas:

1. Remove the plastic sheeting. Maintain in place and operation critical barriers, and air filtration devices and decontamination facilities.

2. Detail clean all surfaces in the work area.

3. After cleaning the work area, provide a period of time to allow fibers to settle.

D. Full Containment Work Areas:

1. Remove the cleaned secondary (outer) layer of plastic sheeting from walls and floors. Maintain in place and operation critical barriers, primary (inner) layer of polyethylene sheeting, air filtration devices and decontamination facilities.

2. After cleaning the work area, provide a period of time to allow fibers to settle.

3. Remove secondary (inner) layer of polyethylene sheeting and HEPA vacuum and wet clean all surfaces in the work area again.

E. Request and pass a pre-clearance (pre-encapsulation) visual inspection as arranged by the County's Representative.

F. Re-clean work area, at no additional cost, as requested or as necessary to remove all visible residue and debris. Repeat cleaning cycles as described above. Request and pass pre-clearance visual inspection (s).

G. Apply Lock-down encapsulant to all surfaces (except floors) and polyethylene sheeting in the work area.

H. Pre-clearance visual inspection (s) and clearance air monitoring shall be arranged by the County's Representative. Refer to Paragraph 3.14 herein.

I. After passing pre-clearance inspections and final clearance air monitoring, remove all remaining plastic sheeting, critical barriers, air filtration equipment, and breakdown decontamination facilities.

J. Remove cleaned layers of plastic from walls and floors and dispose as asbestos contaminated waste.

K. Inspect the work area with County's Representative, and clean-up any visible debris or solvent that may still be present.

L. Remove all waste, materials, and equipment used to complete the work.

M. Request and pass a post teardown visual inspection from the as arranged by County's Representative.

N. Repair damages caused during abatement activities (e.g., paint peeled by duct tape removal, nail holes, water damage, broken glass, etc.), at no additional cost to the County. Restore the work area and auxiliary areas used to perform the abatement work to conditions equal to pre-abatement conditions.

3.13 INSPECTION SEQUENCE

A. After properly preparing the work area, request, receive, and pass a pre-abatement visual inspection as arranged by the County's Representative prior to initiation of removal activities. Do not commence abatement work until after passing the pre-abatement visual inspection and the County's Representative has approved the following:

1. Work area enclosure systems have been constructed and inspected.

2. HEPA air filtration devices are functioning adequately.

3. All pre-abatement submissions, notifications, postings and permits have been provided and are satisfactory to County's Representative.

4. All labor, materials and equipment for abatement, cleanup and disposal are on hand.

5. All worker training and certification is completed.

B. In conjunction with Contractor's daily inspections, the County's Representative shall arrange for the performance of daily inspections and air monitoring. Immediately, without cost to County, correct deficiencies identified during daily inspections and air monitoring and make all necessary modifications to the satisfaction of the County's Representative.

C. After removal of all asbestos-containing materials/asbestos-containing construction materials, initiate final cleaning procedures as described in Paragraph 3.12 herein. After completion of final cleaning (s), request, receive, and pass pre-clearance inspection (s), final clearance air monitoring, and post-teardown inspection (s) as described in Paragraph 3.12 and Paragraph 3.14 herein.

3.14 AIR MONITORING

A. County Furnished Air Monitoring (at County's sole discretion)

1. The County shall furnish a trained and State-Certified Site Surveillance Technician under the direction of a State-Certified Asbestos Consultant to perform inspection, and air monitoring services to monitor the Contractor's compliance with the specifications, Applicable Code Requirements, County policies, and standard industry work practices.

2. The County shall arrange for the performance of background (baseline) air monitoring to determine pre-existing baseline fiber levels prior to abatement. Ambient baseline fiber levels are presumed to be less than or equal to ($\leq$) 0.010 f/cc in the event background air sampling is not performed.

3. Air monitoring shall be performed daily by as arranged by the County during preparation, removal, and cleaning. The monitoring shall occur both inside and outside the work area, so as to accurately assess the airborne fiber levels.

4. Final air clearance methods shall be utilized using NIOSH 7400 Method of analysis (Phase Contrast Microscopy). Final air clearance criteria shall be $\leq$ 0.010 f/cc for each inside sample. Air samples shall be collected from each regulated area after asbestos abatement, and prior to release for re-occupancy by untrained and unequipped personnel.

5. County reserves that right to utilize aggressive final air clearance methods 40 CFR Part 763 (Transmission Electron Microscopy).

6. At the discretion of the County's Representative, in progress, passive (non-aggressive) (a.k.a., process samples) may be utilized to clear non-friable work areas where mechanical means are not used provided that airborne fiber levels remain $\leq$ 0.010 f/cc throughout the duration of abatement activities.

7. At no cost to the County, Contractor shall reclean work areas as described herein that do not meet the clearance criteria established herein.

8. Contractor shall be responsible for subsequent sampling (labor costs) and analytical costs due to initial clearance failures.

B. Contractor Provided Air Monitoring

1. Conduct Phase Contrast Microscopy air monitoring of the exhaust from each negative air filtration unit used on the project during the first day of removal and after each HEPA filter replacement in accordance with VCAPCD requirements.

2. Conduct personal sampling in accordance with 8 CCR §1529 and 29 CFR §1926.1011.

3. During the first full four (4) shifts of removal activities, furnish a trained and State-Certified Site Surveillance Technician under the direction of a State-Certified Asbestos Consultant or a State-Certified Asbestos Consultant to perform personal sampling services.

4. Conduct personal air monitoring daily throughout the duration of asbestos abatement activities to determine accurately the airborne concentrations of asbestos to which workers may be exposed, in accordance with the 29 CFR §1926.1101 and 8 CCR §1529.

5. Take samples in such frequency and pattern as to represent, with reasonable accuracy the level of exposure to all workers. The recommended percentage of workers is 25%, at a minimum.

6. Perform analysis in accordance with the OSHA Reference Method by an analyst who has "NIOSH 582" or equivalent certification and is a successful participant in the AIHA PAT program or equivalent.

7. Post monitoring results and appropriate laboratory analysis work in the staging area, with a copy submitted to County's Representative within twenty-four hours from the time the samples were collected.

3.15 STOP WORK ORDER

A. County's Representative shall have the right to issue a Stop Work Order whenever Contractor's work engineering controls, or air monitoring results are not in accordance with Applicable Code Requirements, contractual restrictions, or the abatement specifications. All costs resulting from the Stop Work Order shall be at Contractor's expense.

B. The Stop Work Order shall first be given verbally to Contractor by the County's Representative, at which point all work shall cease. This will be immediately followed by a written notification to stop work. If the situation is not corrected to County's Representative's satisfaction within forty-eight (48) hours, Contractor shall be considered to be in breach of the Contract and shall be subject to termination.

END OF SECTION

SECTION 02 83 00
LEAD REMOVAL

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section includes the proper set-up, removal, decontamination, and disposal of the following known and presumed lead-based paint (LBP) and lead-containing paint (LCP) on building components:

Refer to Appendix H for *Environmentally Regulated Materials Survey Report*, Dated December 1, 2020, for details of ACM/ACCM/PACM at the site.

Refer to Specifications, Drawings, and County direction for materials to be removed or otherwise impacted.

B. Lead Demolition Activities: Includes the demolition of all LBP and LCP per direction by Client.

1. Demolition of LBP/LCP and painted building components.
2. Removal of LBP/LCP.
3. Welding, torch cutting, or grinding and any other demolition activity (e.g., “Trigger Tasks” as defined by 8 CCR §1532.1).

C. Lead Construction Activities: Impacts to all LBP and LCP not specified for removal above or per direction by Client.

1. Drilling to install dowels, hangers, straps, tie-ins, use of equipment fasteners to fasten equipment, finishes or fixtures, and any other methods or equipment that shall impact LBP/components.
2. Preparation for the re-painting of finishes or fixtures, and any other LBP and LCP/components impacted by the work.
3. Welding, torch cutting or grinding and any other construction activity (e.g., “Trigger Tasks” as defined by 8 CCR §1532.1).

D. Verify actual quantities and sizes by field observation, review of as built drawings or other suitable method.

1.2 RELATED WORK

A. Section 02 82 00: Asbestos Abatement

1.3 SCOPE OF WORK

A. This section covers the furnishing of all labor, materials, facilities, equipment, services, employee training and testing, permits and agreements, and waste transport and disposal necessary to perform the work required for LBP and LCP removal in accordance with these specifications, drawings and notations, United States Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), National Institute of Safety and Health (NIOSH), State of California regulations, Ventura County Air Pollution Control District (VCAPCD), and all other Applicable Code Requirements.

B. The work specified herein is the removal, clean-up and disposal of LBP and LCP/components by competent persons trained, knowledgeable, and qualified in the techniques of removal, handling, and disposal of lead-containing and lead-contaminated materials, and the subsequent cleaning of contaminated areas; who comply with all Applicable Code Requirements; and who are capable and willing to perform the work according to the Contract Documents.

C. Furnish on-site supervisory personnel currently certified by the California Department of Public Health (CDPH) as a Project Monitor or Supervisor. Furnish on-site supervisory personnel during all phases of lead- removal related work from on-site mobilization, work area preparation, removal, clean up, to teardown and demobilization.

D. The work shall also include providing all necessary means of accessing work areas including, removal and reinstallation of doors, temporary ramps, platforms and stairways.

1.4 DISPOSAL REQUIREMENTS

A. Segregate waste generated during the removal work, lead-paint demolition and construction activities and perform waste characterization sampling and analysis for any applicable waste streams, such as, but not limited to:

1. Architectural Components/Intact LBP and LCP
2. Plaster, Concrete Walls/Ceilings
3. Metal Handrails
4. Metal Structural Components
5. Sheetrock/Wood Walls/Ceilings
6. Ceramic Tile/Glazing
7. Disposables Such As, Rags, Towels, String Mops
8. Wastewater
9. Disposable Suits and Filter Cartridges
10. Polyethylene Sheeting
11. Paint Chips/Sludge
12. Chemical/Caustic Paint Strippers
13. Lead Paint Demolition and Construction Debris

B. Waste Stream Disposal Requirements:

1. Applicable Abbreviations:
   a. Total Threshold Limit Concentration (TTLC)
   b. Soluble Threshold Limit Concentration (STLC)
   c. Toxicity Characteristic Leachate Procedure (TCLP)
   d. Milligrams Per Kilograms (mg/kg) = (ppm)

e. Parts Per Million (ppm)
f. Milligrams Per Liter (mg/L)
g. Greater Than or Equal To (≥)
h. Less Than (<)

2. Sampling, Analysis and Disposal Requirements:

a.	TTLC	0 - 50 mg/kg	Class III Landfill (Architectural Debris)
b.	TTLC	≥50 mg/kg <350 mg/kg	
	STLC	<5.0 mg/l	Class III Landfill (Architectural Debris)
c.	TTLC	≥50 mg/kg <350 mg/l	
	STLC	≥5.0 mg/l	
	TCLP	<5.0 mg/l	Class I Landfill (California Hazardous Waste - "Non RCRA")
d.	TTLC	≥50 mg/kg >350 mg/kg - <1,000 mg/kg	
	STLC	<5.0 mg/l	Class I Landfill (California Non-Hazardous Waste/Special)
e.	TTLC	≥50 mg/kg >350 mg/l - <1,000 mg/kg	
	STLC	≥5.0 mg/l	
	TCLP	≥5.0 mg/l	Class I Landfill Federal (RCRA) Hazardous Waste
f.	TTLC	≥1,000 mg/kg	
	TCLP	<5.0 mg/l	Class I Landfill (California Hazardous Waste)
g.	TTLC	≥1,000 mg/kg	
	TCLP	≥5.0 mg/l	Class I Landfill Federal (RCRA) Hazardous Waste

C. The Contractor shall submit to the County's Environmental Consultant the Name, Class, and EPA I.D. Number of the waste disposal site(s) to be used for each waste category that has been determined by testing to exceed the hazardous waste thresholds provided herein.

D. Other facilities may be used only if prior written approval is obtained from the County's Representative.

E. Document actual disposal of the waste at the designated landfill by completing Waste Manifest (s), and Waste Certification Form (s), and waste profiles, and by ensuring their proper completion by the County's Representative, waste transporter, and waste disposal site operator.

1. Within 24 hours of the time waste materials have been removed from the site, deliver all landfill receipts, trip tickets, manifests or other documentation of disposal to:

Ventura County Public Works
Engineering Services
800 S. Victoria Avenue, #1670 Ventura, CA 93009
Devi Nallamala (Devi.nallamala@ventura.org) (805) 654-4354

2. Utilize manifest (s) and waste profile (s) to accompany each load of waste that leaves the site. Include the name and address of the Generator (County), Contractor, pick-up site, disposal site, quantity of lead waste disposed, and the type of container utilized. Obtain

signatures of the Generator's Representative, Transporter and the Disposal Site Operator as the responsibility of the material changes hands.

3. Secondary Transporters are not allowed unless approved in writing by the County's Representative.

F. Dispose of architectural components/Intact LBP and LCP (e.g., Doors/Frames/Trim, Windows/Frames/Trim, Plaster Walls/Ceilings, Concrete/Brick Walls, Sheetrock/Wood Walls/Ceilings, etc.) in an enclosed polyethylene-lined cargo area of a truck, bin or dumpster.

G. Dispose of disposables (suits, rags, towels, string mops, respirator filter cartridges), polyethylene sheeting, paint chips, ceramic tile/glazing, chemical/caustic paint strippers, and wastewater in lockable "ring" top 55-gallon steel drums. Store temporarily on site, and transport from the site in an enclosed polyethylene-lined cargo area of a truck, bin or dumpster.

H. If waste is determined to be a hazardous lead waste based on waste characterization sampling and analysis, transport to the landfill on a hazardous waste manifest. Label the truck (s), bin (s) or dumpster (s), and drums with the following:

1. United States Department of Transportation (USDOT) Class "9" waste classification placards and the following description:

RQ Hazardous Waste Solid, (Lead) (NAERG #171)

2. Warning Labels:

CAUTION HAZARDOUS WASTE

3. Generator Name and Address and Disposal Identification Number
4. Description of the Type of Lead-Containing Materia

5. Date That the Drum Was Filled with Waste

6. Emergency Phone Numbers

I. Based upon waste characterization sampling and analysis, dispose of all non-hazardous lead waste at a Class II or Class III landfill.

J. Prepare all waste transportation containers as follows:

1. Following removal, immediately load all lead waste into an enclosed cargo area of a truck, bin or dumpster for transport to the landfill.

2. Immediately clean up any visible chips or debris observed on waste containers, carts, or surfaces outside the work area resulting from waste transport and loading activities using HEPA vacuums and/or wet methods as appropriate.

3. Provide an enclosed cargo area of a truck, bin or dumpster that is free of debris, and line with a minimum of one (1) layer of 6-mil fire-resistant polyethylene sheeting to prevent contamination from leaking containers.

4. Provide an enclosed cargo area of a truck, bin or dumpster with doors or tops that can be closed and locked to prevent vandalism or other disturbance of the lead waste and wind dispersion of lead dust. Secure and lock the door or top all times with the exception of loading and unloading of lead waste.

5. Do not place loose, unbagged paint chips, or disposable waste materials in the enclosed cargo area of a truck, bin or dumpster.

6. Place drums and components on level surfaces in the cargo area and pack together to prevent shifting or tipping.

7. When parked at the project site, label the outside of the disposal truck, bin or dumpster with the following description:

CAUTION HAZARDOUS WASTE
CONTAINS LEAD

1.5 APPLICABLE STANDARDS AND GUIDELINES

A. All work conducted in conjunction with lead-related activities shall comply with all Applicable Code Requirements, including those listed below. The publications listed below are incorporated into this specification and shall be considered as if printed herein.

1. Code of Federal Regulations (CFR):
   - a. 29 CFR §1926.050 — Stairways and Ladders
   - b. 29 CFR §1910.134 — Respiratory Protection
   - c. 29 CFR 1910.145 — Specifications for Accident Prevention Signs and Tags
   - d. 29 CFR §1926.62 — Lead In Construction
   - e. 29 CFR §1926.59 — Hazard Communication – Construction
   - f. 29 CFR §1200 — Hazard Communication – General Industry
   - g. 29 CFR §1926.450-454 — Scaffolds and Training
   - h. 49 CFR §172 — US Department of Transportation (USDOT)
2. California Code of Regulations (CCR):
   - a. 8 CCR §1532.1 — Lead in Construction
   - b. 8 CCR §5144 — Respiratory Protective Equipment
   - c. Title 17 Division 1, Chapter 8 — Department of Public Health (CDPH) Accreditation, Certification and Work Practices in Lead-Related Construction
   - d. Title 22 — Hazardous Waste Handling
   - e. 8 CCR §5194 — Hazard Communication
   - f. Title 8 §3203 — Injury and Illness Prevention Program
3. United States Department of Housing and Urban Development (HUD):
   - a. Lead Based Paint Guidelines for the Evaluation and Control of Lead Paint in Housing (a.k.a., HUD Guidelines), 1997 Edition
4. American National Standards Institute (ANSI) Publications:
   - a. ANSI Z9.2 - 79: — Fundamentals Governing the Design and Operation of Local Exhaust Systems
   - b. ANSI Z88.2 - 80: — Practices of Respiratory Protection
5. Cal. Lab, Code Sections 6501.5, 6501.8, and 6503.5.
6. American Society for Testing and Material (ASTM) Publication:
   - a. D2986-95a — Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test
7. Underwriters Laboratories, Inc. (UL) Publication:
   - a. — High Efficiency Particulate Air (HEPA) Air Filtration Units

SUBMITTALS AND NOTIFICATIONS

B. Furnish the following to the County's Representative at least 14 days prior to mobilization:

1. A marked-up, site-specific set of floor plans showing locations and lay-out of work area enclosures, decontamination units, air filtration devices, temporary fire protection, waste containers, utility (e.g., water, electrical sources), staging areas, and emergency exiting from the building.

2. Prior to job start, notify all appropriate agencies of the planned removal activities, including:
   a. California Department of Public Health (CDPH) Five Working Days Prior to the Start of Work (CDPH Form 8551)
   b. California Division of Occupational Safety and Health (DOSH)
   c. Copies of supervisor/worker training and certification. Include a copy of the current initial or refresher training certificate as issued by a CDPH accredited training provider. Attach a copy of CDPH issued supervisor/worker certificate for lead-related work.

3. A certificate signed by a licensed physician certifying that each project supervisor/worker is physically able to wear the required respiratory protection and has been examined in accordance with the medical monitoring requirements of 29 CFR §1926.62, and 8 CCR §1532.1within the previous year.

4. Documentation of medical surveillance required in 8 CCR §1532.1, (j). Conduct blood lead and ZPP monitoring of supervisors/workers prior to the start of work and submit results.

5. Copies of the Contractor's Emergency Preparedness Plan to include the following:
   a. Project site layout, location of emergency exits, fire protection equipment (e.g., hydrants, standpipes, and sprinkler shut offs, etc.).
   b. Considerations of fire, explosion, electrical hazards, slips, trips and falls, confined spaces, and heat-related injury.
   c. Project specific periodic training of employees in evacuation procedures in the event of workplace emergencies.
   d. Description of evacuation procedures in the event of workplace emergencies.
   e. Locations and telephone numbers of all emergency response personnel.
6. Current qualitative or quantitative respirator fit testing and training records for all project supervisors/workers who meet the requirements of 29 CFR §1910.134, 29 CFR §1926.62, 8 CCR § 5144, and 8 CCR §1532.1.
7. The names, addresses, telephone numbers, and certification/registration numbers of the transporters and disposal site(s) to be utilized for disposing of hazardous and non-hazardous lead waste materials.

8. Description of waste characterization testing and analysis to include sample collection methods, analytical protocols, and name, qualifications/licenses/registrations of analytical laboratory.

9. Written notification to the rental agency regarding intended use of the rental equipment, and a copy of same submitted to the County's Representative when rental equipment is to be used in removal areas.

10. Furnish written description of methods, materials and equipment to be used to remove LBP and LCP and prepare building components/surfaces coated with LBP and LCP for repaint as specified herein. Furnish written LBP and LCP demolition and LBP and LCP construction activities workplan identifying the following:
    a. A description of each initial Exposure Assessment (EA) to be performed for each type of LBP and LCP demolition and construction activity "trigger" task that the Contractor expects to perform.
    b. A description of demolition and construction activity "trigger" tasks based on the results of the EAs.
    c. The type of dust control measures to be used.
    d. The type of demarcation that shall be used around the lead work control areas.
    e. The type of personal protective equipment, respiratory protection, housekeeping, decontamination, and engineering controls to be used during the initial EAs and subsequent demolition and construction activity "trigger" tasks, based on the results of the EAs.
    f. Emergency plan and route of egress from the site.
    g. A list of prohibited lead-related activities at the site.
    h. The name and qualifications of any third-party consultant that the Contractor shall be utilizing during the project.
    i. Identify the independent testing laboratory (name, address, and telephone number) selected to perform analysis of personal air samples. Furnish documentation that the laboratory selected to perform the analyses is an EPA National Lead Laboratory Accreditation Program (NLLAP) accredited laboratory is certified by the CDPH and is rated proficient in the NIOSH/EPA Environmental Lead Proficiency Analytical Testing Program (ELPAT), including accreditation for heavy metal analysis. List experience relevant to the analysis of lead in air and include a Quality Assurance and Quality Control Program (QA/QC). Currently, the American Association for Laboratory Accreditation (AALA) and the American Industrial Hygiene Association (AIHA) are the EPA recognized laboratory accreditors.
    j. Following completion of EAs, prepare and submit to the County's Representative a written Negative Exposure Assessment (NEA) or EA, based on the results of the initial EAs that includes at least the information specified in 8 CCR 1532.1(d)(5)(A) and:
        (1) The date of determination, location within the worksite, and the name and social security number of each employee monitored.
        (2) All personal air sampling performed by the contractor during the EAs. Furnish personal air sampling results based on an 8-hour TWA.
        (3) A description of the Trigger Tasks utilized during the EAs.
        (4) Proposed changes in work procedures, if any, from those that were proposed in the original work plan."

C. Submit to the County's Representative on a daily basis or whenever requested during the progression of the work, the items listed below. Maintain a copy of the items listed below on the project site at all times:

1. Copies of Contractor's respiratory protection program and injury and illness protection program.

2. Manufacturer's product data and Safety Data Sheets (SDS) for all materials to be used as part of removal activities.

3. VCAPCD permits for all HEPA vacuums and negative air filter units to be used on the project site.

4. Supervisor's daily reports detailing removal activities, worker and visitor access problems and corrective actions taken or proposed, injury reports, equipment breakdown, etc.

5. Logs documenting filter changes on HEPA vacuums, negative air filter units, and shower filters.

6. An updated spreadsheet in Microsoft Excel (hard and electronic copies) showing the names, social security numbers, training expiration dates, medical monitoring expiration dates, and fit test expiration dates for all employees assigned to the project.

7. Copies of all transport manifests with actual weight recorded in pounds or weighmasters certificates for all hazardous and non-hazardous waste materials removed from the work area during the removal process.

8. All personnel air sampling results in accordance with 29 CFR § 1926.62 and 8 CCR §1532.1. Post within 24 hours after the collection of the samples.

D. Product Options and Substitutions:

1. Provide the County's representative proposed Product Options or Substitutions at least 14 days prior to mobilization.

E. Submit the following bound close-out documents to the County's Representative within 30 days following completion of the project:

1. Two Copies of Project Logbook as described in 1.06.B and C (cumulative).

PART 2 - PRODUCTS

2.1 MATERIALS

A. Store all materials at the project site or inside the work area that are subject to damage off the ground away from wet or damp surfaces, and under protective cover to prevent damage or contamination.

B. Do not use and remove all previously used, damaged and/or deteriorating materials from the premises.

C. Deliver materials in the original packages, containers, or bundles bearing the name of the manufacturer and brand name.

D. Utilize UL rated, flame-retardant, polyethylene sheeting (opaque in color), or spray-plastics, of 6-mil thickness or greater, in sizes to minimize the frequency of joints.

E. Utilize duct tape capable of sealing joints or adjacent sheets of plastic, facilitating attachment of plastic sheets to finished or unfinished surfaces of dissimilar materials, and adhering under both dry and wet conditions, including during the use of amended water.

F. Utilize methylene chloride free spray adhesive capable of providing additional sealing of joints, attachment of plastic sheeting to unfinished surfaces, and adhering under dry and wet conditions, including during the use of amended water. Do not use spray adhesive on vinyl or fabric surfaces to remain, or on masonry.

G. Utilize minimum ½" in thickness, "C" grade, and certified as fire retardant plywood material for the construction of barriers, tunnels, and floor protection.

H. Utilize airtight and watertight metal drums with locking ring tops to receive and retain any lead-containing or contaminated materials for storage until disposal at a disposal site. Label the containers as specified herein.

I. Utilize warning signs in accordance with OSHA standard 29 CFR § 1926.62, 8 CCR §1532.1, and Title 22.

J. Provide any other signs, labels, warning, and posted instructions that are necessary to protect, inform, and warn people of the hazard from lead exposure, including signs required under California Health and Safety Code Section 25916 (Prop 65).

K. Utilize non-flammable encapsulating agents and primers that shall adhere to the substrate from where LBP and LCP/components are to be removed, and do not affect replacement materials ability to bond to the substrate, nor reduce the UL rating of the replacement material.

L. Utilize methylene chloride - free and non-carcinogenic chemical solvents and paint strippers.

M. Utilize surfactant (wetting agent) mixture of 50/50 polyoxymethylene ether and polyoxymethylene ester, or equivalent, mixed with water in accordance with manufacturer's printed instructions.

N. Utilize cleaning solutions capable of remove lead dust and residues. Manufacturer: Fiberlock Technologies, Inc., Product – Fiberlock Lead Prep II®; or equal.

2.2 EQUIPMENT

A. Provide scaffolds and ladders of sufficient dimension and quantity so that all work surfaces can be easily and safely reached by workers and inspectors. Seal scaffold joints and ends with tape to prevent incursion of lead paint chips/lead-laden dust. Comply with 29 CFR § 1926.050, and 8 CCR §1 529 and § 1646 requirements when using ladders and scaffolding and incorporate guardrails, mid-rails, toe-rails, and wheel locks as required.

B. Provide a sufficient quantity of negative pressure air filtration units equipped with HEPA filtration and operated in accordance with ANSI Z9.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings. Calculate total air flow requirement as follows:

$$\text{Total ft}^3\text{/min} = \frac{\text{Vol. of work area (in ft}^3\text{)}}{\text{15 minutes}}$$

1. To calculate the number of units needed for the abatement:

$$\text{Number of units needed} = \frac{\text{[total ft}^3\text{/minutes]}}{\text{[capacity of unit in ft}^3\text{/minute]}}$$

C. Provide a single switch or set of switches for the emergency shutdown of all negative pressure equipment by fire department personnel. Locate the switches in a non-contaminated area near the clean exit of the decontamination unit. Identify using a sign with minimum 3" X 1/2" lettering on a contrasting background that read as follows: "NEGATIVE AIR MASTER SHUT OFF."

D. Furnish all tools (e.g., scrapers, wire cutters, nylon brushes, utility knives, saws, rubber or plastic dust pans, squeegees, or shovels, etc.), reinforced rubber water hoses, and filter replacements for vacuums, and filtration units as necessary.

E. Furnish a calibrated incline or digital manometer to measure differential pressure between the inside and outside work areas. Record measurements a minimum of three times per work shift (beginning, middle and end) to ensure that a negative pressure of 0.02 inches of water is maintained.

F. Furnish airless spray equipment with pumps capable of furnishing 500 pounds per square inch (psi) at the nozzle, and a flow rate of two gallons per minute (gpm) for spraying amended water and encapsulant.

G. Furnish a sufficient supply of disposable string mops, plastic buckets with wringers, rags, scrub pads, HEPA vacuums with wand brush attachments, and sponges etc. for work area decontamination.

H. Furnish a sufficient supply of respirator cartridges capable of filtering both lead particulates, and other fumes.

I. Provide the necessary water filtration units, including filters to filter wastewater through a 0.5 micron final filter.

J. Utilize mechanical tools and abrasive blast removal equipment equipped with local HEPA-filtered cleaning and dust collection systems.

2.3 RESPIRATORY PROTECTION REQUIREMENTS

A. Furnish all workers, foremen, superintendents, authorized visitors, and inspectors entering regulated work areas with personally issued respiratory equipment approved by NIOSH. Supply respirator filters and replacements as necessary.

B. Determine the effectiveness of respiratory protection by evaluating job specific air monitoring data. Utilize appropriate respiratory protection based on air monitoring data to protect airborne exposures to workers, foremen, superintendents, authorized visitors, and inspectors.

C. At a minimum, utilize half-face piece, negative pressure air purifying respirators (APRs) equipped with HEPA cartridges during work area preparation, pre- removal decontamination, post removal clean up, and tear down.

D. Until negative exposure assessment (NEA) is performed, assume airborne concentrations for manual demolition of 50 to 500 micrograms per cubic meter (ug/m^3). At a minimum, utilize full-face piece (eye protection), negative pressure APRs equipped with HEPA cartridges.

E. For other lead-related tasks (e.g., torching, welding, use of mechanical means to remove LBP and LCP/components, etc.), until NEA is performed, assume airborne concentrations as outlined in 8 CCR §1532.1(d), and provide respiratory protection as specified in (f).

2.4 PERSONAL PROTECTIVE EQUIPMENT

A. Supply all workers, foremen, superintendents, authorized visitors, and inspectors entering regulated work areas with disposable protective clothing consisting of full body coveralls, with head and foot coverings. Coveralls should be of adequate size and quality to accommodate movement without tearing and to prevent body contamination.

B. Furnish eye protection (contact lenses shall not be worn and spectacle kits which fit each personal respirator shall be issued), gloves, rubber boots, safety shoes and hard hats as required by job conditions and safety regulations. Rubber boots, safety shoes, and hard hats shall be approved in accordance with ANSI Z89.1 1969 and ANSI Z41.1 1967.

C. Furnish chemical resistant gloves, face shields, and other protective clothing when utilizing paint strippers, in accordance with manufacturer's instructions.

D. Provide eyewash station when utilizing paint strippers.

E. Provide training and fall arrest equipment in accordance with 29 CFR §1926.450-454.

F. Leave reusable footwear, hard-hats, and eye protection devices in the contaminated equipment room until the end of the lead-related work or place into polyethylene bags, seal, and store in a locked area or storage bin.

G. Discard and dispose of all disposable protective clothing as lead waste every time the wearer exits from the workspace to the outside through the decontamination facilities.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Review the Contract Documents and perform a pre-construction site investigation to satisfy oneself of the existing conditions affecting the work including:

1. All Applicable Code Requirements.

2. Pre-existing damage and areas of repair that shall not be the responsibility of the Contractor upon completion of removal.

3. The exact quantity of LBP and LCP/components and materials to be removed during the course of work. All errors made in estimating, including costs and difficulties, are the sole responsibility of the Contractor, and shall not result in additional expense to the County.
4. The physical considerations and conditions of both the material and structure. These considerations include any obstacles or obstruction encountered in accessing or removing the material.

5. The amount and type of equipment needed to complete the job safely.

6. The availability of utilities.

7. The handling, storage, transportation, and disposal of the material.

3.2 FIRE PROTECTION

A. Remove and properly dispose of all combustible rubbish and debris, including properly containerized LBP and LCP/components and lead-laden dust at the end of each working day.

B. Utilize fire watch standing by with a 2A/60BC extinguisher during any work requiring open flame.

C. Meet any and all recommendations for job site safety as may be required by the County's Representative.
D. Maintain adequate fire extinguishers (Class ABC) ready for immediate use, distributed throughout the work area under removal and in and about flammable temporary structures for the duration of the project. Provide a minimum of four (4) such approved fire extinguishers inside each work area, and others added at the rate of one (1) for every additional 1,000 square feet of work (or at a rate determined by Fire Safety Representative), in the work area, decontamination chamber, and adjacent to the work site.

1. Exception: Where the total removal containment area is less than 1,000 square feet, provide two (2) (Class ABC) extinguishers.

2. Clearly demarcate all extinguishers locations with red tape.

3. Ensure that on site personnel are aware of the location and proper use of all extinguishers and other fire/life safety equipment.

E. Maintain a fire watch for a minimum of thirty (30) minutes after the cessation of work.

1. Maintain in place, active and unobstructed all existing exterior fire hydrants and standpipes. Obtain approval from County's Representative for any alteration to this equipment.

F. Maintain fire/life safety information in the project log.

1. Prepare a statement at the conclusion of each workday, signed by Contractor, confirming that a survey of the work site has been made and that any unsafe fire/life safety conditions have been rectified.

G. Maintain a minimum of two (2) clearly marked emergency exits from each floor during the removal. Exits from a containment area may be covered with plastic upon County's Representative's approval. Outline the covered exit with red duct type tape or fluorescent color spray paint, and provide a cutting device, also surrounded by red tape or paint, immediately adjacent to the exit.

H. Obtain approval of County's Representative prior to temporarily or permanently modifying fire rated partitions, doors, and other fire cutoffs.

I. Provide the following in containment areas greater than 1,000 square feet:

1. Five (5) extra-extra-large (2XL) "tyvek" type protective coveralls with head and foot coverings, at the entrance to the work area, in a clean, labeled container, for the exclusive use of emergency personnel.

3.3 WORK AREA ACCESS

A. Restrict access to each work area to authorized, trained, and protected personnel. These may include the Contractor's employees, employees of Subcontractor's, the County's Representative, State and local inspectors, and any other designated individuals.

B. Report entry into the work area by unauthorized individuals immediately to the County's Representative.

C. Maintain a logbook in a centralized location on the job site. Anyone who enters a regulated work area must record his or her name, social security number, and affiliation.

D. Access each work area through a single worker decontamination system per work area. Construct decontamination units located outside of the building that shall remain longer than one eight-hour shift of rigid materials (e.g., wood or metal studs and plywood sheathing). Provide locks to prevent unauthorized access.

E. Block or lock all other means of access (doors, windows, hallways, non-designated elevators, non-designated fire exits, etc.) to prevent entry to or exit from the work area. Maintain access through the waste load-out (during the removal of lead waste from the work area), and emergency exits in case of fire or accident.

F. Provide all necessary means of accessing work areas including, removal and reinstallation of doors, temporary ramps, platforms and stairways.

G. Provide project site security in order to protect the site preparation and equipment.

H. Work Hours:

1. The Contractor shall confine operations at the Project to the areas and within the hours permitted by all codes, laws, ordinances, permits, the Contract Documents, the County's Representative, or the County's On-Site Representative, and shall not unreasonably encumber the Project Site or the adjoining sidewalks, streets and alleyways with any material, equipment, or debris.

3.4 DECONTAMINATION ENCLOSURE SYSTEMS

A. Provide a three-stage decontamination unit attached to each work area, for removal of LBP and LCP/components utilizing mechanical means (e.g., sanding, grinding, scraping, abrasive blasting, etc.). Each decontamination unit shall be constructed of rigid framing materials covered with 2 layers of opaque polyethylene sheeting. Construct three-stage decontamination units as follows:

1. A clean room separated from the shower room by a weighted curtained doorway; 2) A shower room separated from the equipment room by a weighted curtained doorway; 3) An equipment/dirty room separated from the work area by a weighted curtained doorway or airlock. Provide a waste container for discarded coveralls, towels, and spent respirator cartridges in the equipment room.
2. Provide a staging area around the decontamination facility of sufficient size for workers to change in and out of street clothes and protective clothing, as well as for lockers (for the storage of street clothes and worker/visitor possessions) uncontaminated disposable protective clothing, towels, respirators, and equipment. Provide opaque polyethylene sheeting or other suitable material to provide privacy.
3. Provide clean shower facilities (portable metal showers or equal) with hot and cold water adjustable in the shower, and so arranged as to provide complete showering of workers and visitors as they exit from the contaminated area. Furnish an adequate supply of soap, shampoo, and towels in the shower at all times. Make provisions to prevent contaminated water run-off from the shower room (e.g., a tub).
4. Provide one shower per 10 full-shift removal workers or Subcontractor personnel calculated on the basis of the largest shift.
5. Filter all water utilized during this project and contaminated by lead. Utilize a filtering system containing a series of several filters (0.5 – 1.0 micron capability) with progressively smaller pore sizes to avoid rapid clogging of the filtration system by large particles. Collect filtered wastewater in a leakproof container (s), prepare waste profile, and dispose accordingly. Dispose of used filters as lead waste. If acceptable to local regulatory discretion, discharge wastewater to a sanitary sewer. Provide any necessary discharge permits and sampling/analysis of wastewater prior to discharge.

B. Provide a two-stage decontamination unit attached to each work area, for removal of LBP and LCP/components utilizing modified and/or non-mechanical means (e.g., chemical strippers, hand scraping, hand wet sanding, HEPA shroud mechanical hand tools, etc.). Each decontamination unit shall be constructed of rigid framing materials covered with 2 layers of opaque polyethylene sheeting. Construct two-stage decontamination units as follows:

1. A clean room separated from the washroom by a weighted curtained doorway; and a shower room separated from work area by a weighted curtained doorway or airlock.
2. Equip the washroom with the facilities (e.g., water hose, airless sprayer, or wash station) to wash and wipe the outside of waste containers and components prior to removing them from the work area for transportation to the landfill. Make provisions to prevent any contaminated water run-off from the washroom by providing a child's swimming pool or equivalent water collection device.

C. Provide decontamination facilities attached to each work area for lead paint demolition and construction activities. To include water, soap, towels, etc for cleansing of exposed skin.

3.5 WORKPLACE ENTRY AND EXIT PROCEDURES

A. Post the following information in the staging area outside the decontamination facility:

1. Telephone/cellular phone numbers/pager numbers for local hospital, location of hospital and/or emergency personnel, local fire department, Contractor's Representatives, and County's Representative.
2. Copies of notifications to regulatory agencies as required herein.
3. Copies of Contractor's respiratory protection program and injury and illness protection program.
4. Copies of the Contractor's emergency procedures as specified herein.
5. Copies of Hospital's Infectious Control Pre-Abatement Permit, if required by County.
6. Employee daily sign-in/out log.
7. Employee/visitor work area entry/exit log.
8. Cal/OSHA required postings.
9. Logs documenting filter changes on HEPA vacuums, negative air filter units, and shower filters.
10. VCAPCD HEPA vacuum and air filtration unit permits.
11. All personnel air sampling results in accordance with 29 CFR § 1926.62 and 8 CCR §1532.1.

B. Personnel Entry and Exit

1. Furnish all personnel and authorized visitors throughout the removal process with the specified protective clothing and gear. Ensure that all personnel entering and leaving the work area abide by the following procedures:
   a. Enter the removal work area through the worker decontamination facility.
   b. Ensure that all personnel, before entering the work area, have read and are familiar with all posted regulations, personal protection requirements (including workplace entry and exit procedures), and emergency procedures. Furnish a sign off sheet to acknowledge that these have been reviewed and understood by all personnel prior to entry.
   c. Remove all street clothes and appropriately don personal protective equipment and respiratory protection.

d. Wearing designated personal protective equipment, workers and visitors proceed to the work area.
e. No smoking, eating, drinking, chewing of gum or tobacco, application of cosmetics, or wearing of jewelry while inside the work area.
f. Removal of gross contamination from the outside of respirators and protective clothing prior to leaving the work area by brushing and/or HEPA-vacuuming procedures. Provide a walk-off pan (e.g., small children swimming pool filled with water) for workers/visitors to clean off foot coverings prior to leaving the work area and entering the dirty room.
g. Proceed to the dirty room of the decontamination enclosure and remove protective coveralls. Continue to wear respirators until in the shower or wash station.
h. Store reusable, contaminated footwear and other contaminated equipment in sealed containers in a designated “contaminated” area when not in use in the work area.
i. Shower or wash using soap and shampoo to remove lead contamination. Rinse respirator face pieces and parts that are waterproof upon entering the shower. Wet wipe non-waterproof items such as respirator motors or filters. After showering/washing and drying off, proceed to the clean room and don clean disposable clothing for re-entry into the work area or street clothes.

C. Waste Load-Out Procedures

1. Ensure that all waste leaving the work area is done in accordance with the following procedures:
   a. Transport containerized (drums) of lead contaminated waste and architectural components/Intact LBP and LCP/components coated with LBP out of the work area through the waste decontamination facility, or into an enclosed polyethylene-lined cargo area of a truck, bin or dumpster directly attached to the work area.
   b. Utilize two teams of workers, an "inside" team and an "outside" team for waste load-out procedures.
   c. The inside team, wearing appropriate protective clothing and respirators:
      (1) Cleans the outside, including the bottoms, of properly labeled drums and architectural components using water hoses or airless sprayers and wet wiping techniques, and then transport the containers into the waste decontamination facility clean room.
   d. The outside team, wearing protective clothing and respirators:
      (1) Removes cleaned drums from the waste decontamination facility clean room.
   e. Transport the waste to the waste container using drum dollies or other suitable equipment. Transport waste to the waste container along unoccupied routes pre-approved by County’s Representative, and as indicated in Contractor’s submittals.
   f. If the drums and architectural components are placed directly into an enclosed polyethylene-lined cargo area of a truck, bin or dumpster directly attached to the work area, clean the outside, including the bottoms, of properly labeled drums and architectural components using water hoses or airless sprayers and wet wiping techniques, prior to placing in waste container.

3.6 EXPOSURE CONTROLS

A. Provide the following exposure controls for the work areas:

1. The means to provide supply air to and exhaust air from the work area to maintain negative pressure. Operate on a 24-hour basis throughout all lead-related work until final air clearance is achieved.
2. Maintain a static negative air pressure of 0.02 inches (minimum) water at all times in the work area during removal to ensure that contaminated air in the work area does not migrate to uncontaminated areas.
3. Provide and initiate operation of HEPA-filtered ventilation units as needed to furnish an air change in the work area a minimum of every 15 minutes. Provide a sufficient number of supply and exhaust units to create a stream of air away from the faces of the workers, and in such a way as to not damage or compromise the integrity of the plastic isolation barriers.
4. Maintain at all times, at minimum, two HEPA-filtered ventilation units as back-ups in case of failure of any operating units or as means to maintain static negative air pressure.
5. Provide ventilation units at the opposite end of the decontamination facility in order provide air flow across the work area.
6. Provide an on-site static pressure strip-recording manometer with an audible alarm or fluid incline manometer for all work areas. Submit tape chart recordings or measurements daily to the County's Representative.
7. Seal all openings made in the enclosure system made to accommodate ventilation units airtight with tape and/or caulking as needed.
8. If more than one unit is provided, turn the units on one at a time, checking the integrity of wall barriers for secure attachment and need for additional reinforcement.
9. On electric power failure, stop all work immediately, do not resume until power is restored and exhaust units are operating again. On extended power failure, (longer than 1 hour), seal the decontamination facilities airtight after the evacuation of personnel from the work area.
10. Exhaust HEPA filtered ventilation units to the outside of the building no closer than fifty (50) feet to any building HVAC supply vents or other air system intakes, or entrances/exits of occupied areas.

3.7 MAINTENANCE OF WORKPLACE BARRIERS AND WORKER DECONTAMINATION ENCLOSURE SYSTEMS

A. Inspect all polyethylene barriers inside the work area, in the worker decontamination enclosure system, and at partitions constructed to isolate the work area from occupied areas, before the start of each shift and at least twice daily during the shift. Document inspections and observations in the daily project log.

B. Repair damage and defects in the enclosure system immediately upon discovery.

C. Utilized air current (smoke) tubes to test the effectiveness of the work area barriers, the worker and equipment decontamination systems with the negative pressure ventilation units in operation before removal work at least once for each shift, or when requested by the County's Representative. Document results and observations in the project logbook.

D. If visible material is observed outside of the work area or if damage occurs to barriers, immediately stop work, repair barriers, and clean up debris/residue using appropriate HEPA vacuuming and wet wiping procedures.

E. If air samples collected outside of the work area during removal activities indicate airborne lead concentrations greater than 5 ug/m^3, and surface wipe sample results greater than or equal to

40 micrograms per square foot ($\geq$ 40 ug/ft^2) for interior floor surfaces, 250ug/ft^2 for interior horizontal surfaces, 400 ug/ft^2 for exterior surfaces, and 1,000 parts per million (ppm) for soil, or pre-measured background levels (whichever is higher), stop work immediately for inspection and repair of barriers. Cleanup of surfaces outside of the work area, using HEPA vacuums or wet cleaning solution, as necessary.

3.8 INITIAL CLEANING

A. Pre-clean all movable objects in the work area using HEPA vacuuming or wet-cleaning methods as necessary to remove all visible dust and debris. After cleaning, remove objects from the work area and dispose or store in an uncontaminated location as approved by County's Representative.

B. Pre-clean all fixed objects (e.g., walls, floors, ducts, suspended ceilings, etc.) in the work area using HEPA vacuuming or wet-cleaning methods as necessary to remove all visible dust and debris.

C. Dispose of all suspect debris and contaminated filters, mop heads, cloths, wastewater, etc. used to perform pre-cleaning work in sealed, leak-proof containers.

3.9 WORK AREA PREPARATION

A. General:
   1. Warning Signs:
      a. Post caution signs meeting the specifications of 29 CFR § 1926.62, 8 CCR §1532.1, and Title 22, Part 12601 at appropriate approaches to the work area where airborne concentrations of lead may exceed ambient background levels. Post signs a distance sufficiently far enough away from the work area so as to permit an employee or visitor to read the sign and take the necessary protective measures to avoid exposure. Post additional signs following construction of workplace enclosure barriers at all entrances and exits to the work area.
   2. Electrical Equipment:
      a. Use methods, as necessary, to protect stationary electrical equipment including panel boards, and transformers, scheduled to remain energized.
      b. Obtain County's Representative's approval prior to any utility shutdown in accordance with appropriate specifications.
   3. Temporary electrical service:
      a. Provide and maintain all necessary temporary ground fault electrical power service, distribution, equipment, connections, etc., as necessary for the Work. Before final acceptance, remove all temporary equipment and connections provided in a manner approved by County's Representative.
      b. Coordinate with the County's Representative, the shutdown, lock out and isolation of electrical systems. Label electrical conduits or cabling running through the work area that shall remain in operation during the removal.
      c. Make temporary service connections to the existing electrical distribution system at a point which shall be made available by the County's Representative.
         (1) Provide spider boxes or similar devices to provide power from the panelboard to the work area for small tools and lighting. Power for larger equipment and lighting for use inside the work area during removal may be taken directly from panelboards as approved by County's Representative.

(2) Do not allow the load connected to any circuit to exceed 25% of the feeder capacity as labeled on the panel board.
(3) Do not disturb cables and conductors which may prevent closing of fire-labeled doors.
(4) Provide ground fault interrupter outlets in order to allow for temporary electric power hook ups.
(5) Furnish an electrician or electrical Subcontractor with a current State of California Contractor's C-10 (Electrical -General) license in order to accomplish required electrical hook ups and equipment installations.
(6) Comply with NEMA, MECA and UL standards and CAL/OSHA requirements.

4. Temporary Lighting:
   a. Provide “string type” general service incandescent lighting with guarded cages and portable plug in task lighting of sufficient wattage throughout the work area to supply a 20 foot candle minimum light level.
   b. Temporary lighting may be used in combination with natural lighting to achieve minimum light level.
5. HVAC Systems:
   a. Coordinate with the County’s Representative, the shutdown, lock out and isolation of heating, cooling, and ventilating air systems. Maintain shutdown throughout the removal to prevent contamination and lead dust dispersal to other areas of the structure and outside the building.
   b. Seal all intake and exhaust vents leading from the work area with two layers of 6-mil polyethylene sheeting and duct tape. Seal seams in HVAC components to remain, that pass through the work area prior to covering with poly sheeting.

B. Removal of LBP and LCP/components utilizing full containment methodologies using mechanical means (e.g., sanding, grinding, torch cutting, abrasive blasting, etc.)

1. If disturbing lead containing materials in this manner:
   a. If torch cutting or welding, remove twelve inches (12”) per side of point of cut on any building components requiring welding or torch cutting during removal and demolition.
   b. Decontaminate and remove non-fixed items from the work area and dispose or store in an uncontaminated location as approved by the County’s Representative.
   c. Provide pre-cut plywood manifolds in windows or louvers at point (s) where HEPA exhaust ducts exit the building. Paint the exterior of the plywood beige. Caulk and seal the plywood manifolds airtight.
   d. Provide critical barriers of, at minimum, two layers of 6-mil polyethylene sheeting individually secured with spray adhesive (except for where masonry surfaces exist), and then taped over all openings leading from the work area including windows, doors, diffusers, etc.
   e. Prior to the installation of polyethylene critical barriers at openings that lead to the exterior of the building, and that shall not be used as emergency egress, provide minimum ½” thickness plywood material and rigid framing.
   f. Identify and seal with firestop, spray foam, or equal, all floor/ceiling penetrations, including, drains, cracks, expansion joints, cable runs, conduits, pipes runs or ducts.
   g. Connect worker/waste decontamination facilities and HEPA filtration devices as per Paragraph 3.4 and 3.6 herein.
   h. Demarcate emergency exits and path of travel to emergency exits with bright colored arrows or spray paint, located approximately 30” above the floor.

i. Provide sufficient view ports to allow persons outside the work area to view all parts of the work area.
j. Cover floors in the work area with two layers of 6-mil, fire retardant polyethylene sheeting. Secure floor sheeting so as to prevent it from moving during demolition/ removal. This may require additional support/attachments.
k. Provide 2 layers of 6-mil poly sheeting over fixed items (i.e., walls, ductwork, utilities, etc.), to remain in the work area to protect from damage during lead demolition/ removal.
l. Size plastic to minimize seams. Stagger successive layers of sheeting to reduce the potential for water to penetrate beyond the floor sheeting. Do not locate any seams at wall/floor joints.
m. Separate seams by at least a distance of six feet. Overlap all seams by a minimum of 12 inches, and secure by first applying spray adhesive and then firmly securing with tape.
n. After installation and operation of critical barriers, decontamination facilities, and HEPA filtration devices, and floor coverings, request, receive, and pass a pre-removal visual inspection arranged by the County's Representative prior to initiation of removal activities. Operate HEPA filtration devices for at minimum two hours prior to requesting a pre- removal visual inspection.

C. Removal of LBP and LCP/components utilizing modified containment methodologies (non-mechanical means (e.g., chemical strippers, hand scraping, hand wet sanding, HEPA shroud mechanical hand tools, etc.) from the following:

1. If disturbing lead containing materials in this manner:
a. Decontaminate and remove non-fixed items from the work area and dispose or store in an uncontaminated location as approved by the County's Representative.
b. Provide critical barriers of, at minimum, two layers of 6-mil polyethylene sheeting individually secured with spray adhesive (except for where masonry surfaces exist), and then taped over all openings leading from the work area including windows, doors, diffusers, etc.
c. Identify and seal with firestop, spray foam, or equal, all floor/ceiling penetrations, including, drains, cracks, expansion joints, cable runs, conduits, pipes runs or ducts.
d. Provide worker decontamination/wash station.
e. Cover floors in the work area with one layer of 6-mil, fire retardant polyethylene sheeting. Secure floor sheeting so as to prevent it from moving during demolition/ removal. This may require additional support/attachments.
f. Size plastic to minimize seams. Stagger successive layers of sheeting to reduce the potential for water to penetrate beyond the floor sheeting. Do not locate any seams at wall/floor joints.
g. Separate seams by at least a distance of six feet. Overlap all seams by a minimum of 12 inches, and secure by first applying spray adhesive and then firmly securing with tape.
h. After installation and operation of critical barriers, decontamination facilities, and HEPA filtration devices, and floor coverings, request, receive, and pass a pre-removal visual inspection arranged by the County's Representative prior to initiation of removal activities.

3.10 REMOVAL OF LBP AND LCP/COMPONENTS

A. Full-Containments

1. Properly prepare work area as described in Paragraph 3.9 herein.
2. Wet all LBP and LCP/components with an amended water solution. Utilize equipment capable of providing a fine spray mist, in order to reduce airborne particulate concentrations when the material is disturbed. Do not allow excessive water to accumulate in the work area. Keep all removed material wet until it can be containerized for disposal.
3. Maintain high humidity in the work area by regular misting until all visible material has been cleaned up.
4. Once saturated, remove all LBP and LCP/components.
   a. Architectural components/Intact LBP and LCP. Remove in manageable sections using hand-held tools and methods that minimize delamination of paint and generation of paint chips or dust.
   b. Plaster, Concrete, Brick, Sheetrock, Wood, Ceramic Tile/Glazing, Sinks/Toilets/Glazing. Remove in manageable sections using hand-held tools (e.g., hammers, axes, scrapers, prybars, etc.) and methods that minimize delamination of glazing and generation of dust.
   c. Defective (e.g., peeling, alligatoring, flaking or otherwise delaminating) LBP and LCP/components from building components. Remove using approved handheld scrapers, hand held mechanical tools (e.g., sanders, needle guns, abrasive blasting, etc.) and chemical strippers.
   d. Intact LBP and LCP from building components: Remove using approved handheld scrapers, hand held mechanical tools (e.g., sanders, needle guns, abrasive blasting, etc.) and chemical strippers.
5. Promptly drum paint chips and dust generated as a result of demolition activities. Periodically spray the work area to maintain in a wet condition.
6. Seal drums when full. Securely seal with locking ring tops.
7. Detail clean all surfaces in the work area to remain including utility lines, hangars, conduit, junction boxes, and sprinkler lines.
8. Clean up work areas as described in Paragraph 3.12 and 3.13 herein.

B. Modified Containment Methodologies

1. Properly prepare work area as described in Paragraph 3.9 herein.
2. Wet all LBP and LCP/components with an amended water solution. Utilize equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Do not allow excessive water to accumulate in the work area. Keep all removed material wet until it can be containerized for disposal.
3. Maintain high humidity in the work area by regular misting until all visible material has been cleaned up.
4. Once saturated, remove all LBP and LCP/components.
   a. Architectural components/Intact LBP and LCP. Remove in manageable sections using hand-held tools and methods that minimize delamination of paint and generation of paint chips or dust.
   b. Intact Sinks/Toilets/Glazing
   c. Defective (e.g., peeling, alligatoring, flaking or otherwise delaminating) LBP and LCP from building components. Remove using approved handheld scrapers, hand sanding, handheld mechanical tools (e.g., sanders and needle guns equipped with HEPA shroud dust collection systems) and chemical strippers.
   d. Intact LBP and LCP from building components: Remove using approved handheld scrapers, hand sanding, hand held mechanical tools (e.g., sanders and needle guns equipped with HEPA shroud dust collection systems) and chemical strippers.

5. Promptly drum paint chips and dust generated as a result of demolition activities. Periodically spray the work area to maintain in a wet condition.
6. Clean up work areas as described in Paragraph 3.12 and 3.13 herein.

3.11 LEAD PAINT DEMOLITION AND CONSTRUCTION ACTIVITIES

A. Retain a third-party lead consulting firm to perform exposure assessments (EA) during representative demolition and construction activity "trigger" tasks as specified in 8 CCR §1532.1.

B. Prepare and submit proposed EA workplan for each type of demolition and construction activity to be performed, perform initial EAs and submit results of EAs to the County's Representative prior to performing any lead-related demolition or construction activity.

C. Provide lead dust control measures, lead waste and debris retention areas, worker protection, and decontamination areas in accordance with this Section, the Contractor's work plan, and lead EA data.

D. Pre-Project Initial EA:
1. Prior to performing any lead-related demolition work, perform initial EAs as described in 8 CCR §1532.1.
2. During pre-project EA utilize Supervisors/Competent Persons who are certified as Lead-Related Construction Supervisors and Lead-Related Construction Workers in accordance with 17 CCR, Division 1, Chapter 8.

E. Perform initial EAs in accordance with this Section and the Contractor's lead-related demolition work plan required by Paragraph 1.6 SUBMITTALS AND NOTIFICATIONS.

F. Perform initial EAs for a minimum of one full day (one 8-hour shift) and include all work practices and trigger tasks that the Contractor expects to encounter during lead-related demolition work.

G. Collect personal air samples as part of the EAs utilizing third party consulting firm.

H. If the results of the EA indicate that the Action Level (AL) shall not be exceeded during the work, the following lead-related worker protection, engineering controls, training and certification requirements shall be required. Refer to the appropriate sections of 8 CCR §1532.1 for a complete description of requirements.

1. Respirator if requested by employee.
2. Hand washing facilities.
3. Housekeeping.
4. An employee's right to access to records under 29 CFR Part §1910.1020.
5. The contents and requirements of 29 CFR §1926.62 and 8 CCR §1532.1.
6. The specific nature of the operation that could result in exposure to lead.
7. The purpose, proper selection, fitting, use, and limitations of respirators.
8. Purpose and description of the medical surveillance program and the medical removal protection program, including information concerning the adverse health affects associated with excessive exposure to lead (with particular attention to the adverse reproductive effects on both males and females and hazards to the fetus and additional precautions for employees who are pregnant).
9. Relevant engineering controls and good work practices.

10. The contents of any compliance plan in effect.
11. Instructions that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.

I. If the results of the EA indicate that the Action Level (AL) 30 micrograms per cubic meter (30 ug/m^3) shall be exceeded but below the Permissible Exposure Limit (PEL) (50 ug/m^3) during the work, the following lead-related worker protection, engineering controls, training and certification requirements, in addition to those listed in Paragraph (H) above shall be required. Refer to the appropriate sections of 8 CCR §1532.1 for a detailed description of requirements.
1. Blood Lead Level (BLL) and Zinc Protoporphyrin (ZPP) monitoring.
2. Protective Clothing.
3. Medical Exam.

J. If the results of the EA indicate that the PEL shall be exceeded during the work, the following lead-related worker protection, engineering controls, training and certification requirements, in addition to those listed in Paragraph (H) and (I) above shall be required. Refer to the appropriate sections of 8 CCR §1532.1 for a detailed description of requirements.

1. Engineering controls and work practices.
2. Written Compliance Program.
3. Mechanical Ventilation.
4. Administrative Controls.
5. Respiratory Protection.
6. Regulated Area.
7. Decontamination Facilities.
8. Changing Areas.
9. CDPH certified supervisors/worker.
10. Signs.

K. If the Contractor's means and methods for the EAs change from those presented in the lead-related demolition work plan and during the work, perform another EA to determine lead-related worker protection, engineering controls, training and certification requirements for the lead-related demolition workers.

3.12 CLEAN-UP PROCEDURES – GENERAL

A. Promptly clean up visible accumulations of loose paint chips and lead-laden dust.

B. Collect lead-containing or contaminated materials utilizing rubber or plastic dust pans, shovels, and squeegees or HEPA vacuums.

C. Do not use metal shovels or brooms within the work area.

D. Clean up visible accumulations of lead-containing or contaminated materials from all surfaces in the work area on a daily basis.

E. Wet wipe all surfaces in the work area using rags, string mops, plastic buckets with wringers, sponges, and lead cleaning solution as needed to remove all visible residue.

3.13 FINAL CLEANING

A. Remove all containerized waste from the work area and decontamination facilities.

B. Remove all tools and equipment (except for equipment needed to complete final cleanings and air filtration units, critical barriers, polyethylene sheeting) from the work area and properly decontaminate in the decontamination facility.

C. Remove layers of plastic sheeting from floors. Maintain in place and operation critical barriers, air filtration devices and decontamination facilities.

D. Conduct three stage cleaning in the work area. Start from the farthest end of the work area from the decontamination facilities exit and clean toward the decontamination facilities.

1. HEPA vacuum all surfaces in the work area.
2. Wet clean all surfaces in the work area using lead cleaning solution. Utilize the “3 bucket” system (cleaning solution, Empty, and water) when wet cleaning.
3. HEPA vacuum all surfaces in the work area.

E. Request and pass a pre-clearance (pre-encapsulation) visual inspection arranged by the County’s Representative.

F. Re-clean work area, at no additional cost, as requested or as necessary to remove all visible paint chips, residue and debris. Repeat cleaning cycles as described above. Request and pass pre-clearance visual inspection (s).

G. Apply Lock-down encapsulant (primer) to all surfaces in the work area.

H. The performance of the pre-clearance visual inspection (s) and clearance settled dust wipe sampling shall be arranged by the County’s Representative. Refer to Paragraph 3.14 herein.

I. After passing pre-clearance inspections and final clearance settled dust wipe sampling, remove all remaining plastic sheeting, critical barriers, air filtration equipment, and breakdown decontamination facilities.

J. Inspect the work area with County’s Representative, and clean-up any visible debris that may still be present.

K. Remove all waste, materials, and equipment used to complete the work.

L. Request and pass a post teardown visual inspection from the County’s Representative.

M. Repair damages caused during removal activities (e.g., paint peeled by duct tape removal, nail holes, water damage, broken glass, etc.), at no additional cost to the County. Restore the work area and auxiliary areas used to perform the removal work to conditions equal to pre- removal conditions.

3.14 INSPECTION SEQUENCE

A. After properly preparing the work area, request, receive, and pass a pre- removal visual inspection arranged by the County's Representative prior to initiation of removal activities. Do not commence removal work until after passing the pre- removal visual inspection and the County's Representative has approved of the following:
   1. Work area enclosure systems have been constructed and inspected.
   2. HEPA air filtration devices are functioning adequately.
   3. All pre- removal submissions, notifications, postings and permits have been provided and are satisfactory to County's Representative.
   4. All labor, materials and equipment for removal, cleanup and disposal are on hand.
   5. All worker training and certification is completed in conjunction with Contractor's daily inspections, the County's Representative shall perform daily inspections, air monitoring, and settled dust wipe sampling. Immediately, without cost to County's Representative, correct deficiencies identified during daily inspections, air monitoring, and wipe sampling and make all necessary modifications to the satisfaction of the County's Representative.

B. After removal of all LBP and LCP/components materials, initiate final cleaning procedures as described in Paragraph 3.13 herein. After completion of final cleaning (s), request, receive, and pass pre-clearance inspection (s), final clearance settled dust wipe sampling and analysis, and post-teardown inspection (s) as described in Paragraph 3.13 and 3.15 herein.

3.15 AIR MONITORING AND CLEARANCE SAMPLING

A. Furnished Air Monitoring (at County's sole discretion)

   1. The County shall furnish a trained CDPH lead-related construction consultant to perform inspection, air monitoring, and settled dust wipe sampling services to monitor the Contractor's compliance with the specifications, applicable regulations, County policies, and standard industry work practices.
   2. Area air monitoring shall be performed, at the County's sole discretion, by the County or designated representative during preparation, removal, and cleaning. The monitoring shall occur both inside and outside the work area, so as to accurately assess the airborne lead levels.
   3. LBP and LCP/Components Clearance Criteria:
      a. Less than (<) 40 ug/ft^2 for interior floor surfaces
      b. < 250ug/ft^2 for interior horizontal surfaces
      c. < 400 ug/ft^2 for exterior floor and exterior horizontal surfaces
      d. < 1,000 ppm for soil
   4. At no cost to the County, Contractor shall reclean work areas as described herein, that do not meet the clearance criteria established herein.
   5. Contractor shall be responsible for subsequent sampling (labor costs) and analytical costs due to initial clearance failures.

B. Contractor Provided Air Monitoring

   1. During the first full four (4) shifts of removal activities, provide a trained CDPH lead-related project monitor or supervisor to perform personal sampling services.
   2. Conduct personal air monitoring daily throughout the duration of lead removal activities to determine accurately the airborne concentrations of lead to which workers may be exposed, in accordance with 29 CFR §1926.62 and 8 CCR §1532.1.
   3. Take samples in such frequency and pattern as to represent, with reasonable accuracy the level of exposure to all workers. The recommended percentage of workers is 25%, at a minimum.

4. Utilize an analytical laboratory to perform sample analysis that is certified by the California Environmental Accreditation Program (CA ELAP), and is a successful participant in the American Industrial Hygiene Association (AIHA) Environmental Laboratory Proficiency Analytical Testing (ELPAT) program.
5. Post monitoring results and appropriate laboratory analysis work in the staging area, with a copy submitted to County's Representative within twenty-four hours from the time the samples were collected.

C. Contractor Provided Waste Characterization

1. Conduct representative sampling and analysis of waste streams to determine if waste is hazardous. Conduct Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) and Toxicity Characterization Leaching Procedure (TCLP) as outlined in Contractor's submittal to meet landfill, CCR Title 22 Section 66261.24 requirements, and as specified in Paragraph 1.4 herein.

3.16 STOP WORK ORDER

A. County's Representative shall have the right to issue a Stop Work Order whenever Contractor's work engineering controls, or air monitoring results are not in accordance with published regulations, contractual restrictions, or the removal specifications. All costs resulting from the Stop Work Order shall be at Contractor's expense. Refer to General Conditions Article 2.3.1.

B. The Stop Work Order shall first be given verbally to Contractor by the County's Representative, at which point all work shall cease. This shall be immediately followed by a written notification to stop work. If the situation is not corrected to the County's Representative satisfaction within forty-eight (48) hours, Contractor shall be considered to be in breach of the Contract and shall be subject to termination.

END OF SECTION

DIVISION 31

EARTHWORK

SECTION 31 11 00
CLEARING, GRUBBING, LANDSCAPE & TREE PROTECTION

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

A. Furnish all tools, equipment materials, and supplies and perform all labor to complete the Work associated with removal of all natural and artificial material from the designated areas of Work as indicated in the Contract Documents.

B. Areas to be cleared and grubbed shall be limited to the extents necessary to perform the Work.

C. Work shall also include the protection from injury and preservation of existing improvements, adjacent property, utilities, vegetation, landscape, trees, and existing objects designated to remain during the Work.

D. Work shall also include the protection and trimming (where approved of by Owner) of existing trees that interfere with, or are affected by, execution of the Work, whether temporary or permanent construction. The Contractor shall provide a certified arborist to perform the services indicated herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02 41 00, Demolition

B. Section 31 23 00, Earthwork

1.03 SUBMITTALS

A. Apply and submit any permits obtained.

B. Prior to clearing and grubbing at the Project site, the Contractor shall prepare and submit a field verified landscape inventory of existing plants, shrubs, ground covers, boulders, and concrete borders/headers that are to be protected in place. Said inventory shall include approximate size, spacing, and location within the Work Area Limits. Said inventory shall include a map prepared by the Contractor depicting locations of existing materials and shall include photos of existing plant and landscape materials to be protected in place.

C. Submit Contractor's certified arborist qualifications and tree trimming company qualifications for the tree trimming and preservation work.

D. Submit written tree pruning schedule prepared by Contractor's certified arborist detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.

E. Submit certification prepared by Contractor's arborist certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 CLEARING AND GRUBBING

A. Clearing and grubbing shall be in conformance with SSPWC Section 300-1 and this Specification.

B. Complete clearing and grubbing prior to the start of excavating. Do not permit excavated materials to cover vegetation prior to disposal.

C. Clearing within Work Areas shall consist of cutting and removing all vegetative growth such as roots, stumps, shrubs, brush, limbs, grass, weeds, and other vegetative growth. Remove all evidence of their presence from the ground surface. Clearing shall also include the removal and disposal of trash piles, rubbish, fencing, and other objectionable material present on the surface of the ground.

D. Grubbing shall consist of the removal and disposal of wood, stumps, concrete rubble, debris, or root matter a minimum of 36 inches below existing ground surface or bottom of subgrade, whichever is deeper, unless otherwise shown on the Drawings. Clearing shall include stumps, logs, roots, or root systems greater than 1.5 inches in diameter or thickness.

E. Extension of clearing and grubbing limits for the Contractor's convenience (or due to their error) shall not be allowed.

F. Fill all grubbing holes or depressions to match adjacent grade and compact to 95% relative density.

G. Upon completion of the Work, adjacent properties and improvements damaged by Construction shall be restored to their original condition to the full satisfaction of the Owner.

3.02 PRESERVATION OF NON-OAK TREES, SHRUBS, AND OTHER VEGETATION

A. Protect non-oak trees, shrubbery, and other vegetation not designated for removal or located within the designated Work Areas from damage resulting from the Work. Cut and remove tree branches only where such cutting is necessary for construction and is approved by the Contractor's certified arborist and the Owner. Scars resulting from the removal of branches shall be treated with an approved tree sealant.

B. Protect all trees, shrubs, landscaping, and other vegetation within the public right-of-way, except those which are noted to be removed and replaced on the Plans or are shown within the Work Area. If the Work impacts or requires removal of the landscaping within the road median strips, shrubbery, or other landscaping in order to perform the Work, obtain the permission of the applicable owner or agency having jurisdiction, and replace the landscaping in kind.

C. Construction equipment (including ropes and cables) may not be secured on or rest upon nearby trees or landscaping without prior approval. If such special use is permitted, the tree or other landscaping shall be protected, such as by wrapping a tree trunk with burlap or rags to a sufficient thickness to protect the tree from damage.

D. The Contractor shall be liable for all damages and costs related to unauthorized removals of trees or other vegetation.

E. Non-oak trees to remain in place shall be protected by temporary fence or barriers located at the tree protection zone as approved by the Owner. The tree protection zone is defined as the surface and subsurface area within the dripline and extending a minimum of five (5) feet outside the dripline or 15 feet from the trunk of a tree, whichever is greater.

F. Trees which are protected in place but have branches which interfere with performance of the Work shall be cut off to the boles in an approved manner under the direction of the Contractor's certified arborist. Cutting of branches shall be approved by the certified arborist and the Owner ahead of time. Cutting of roots and any recommended treatment shall be supervised and directed by the certified arborist.

3.03 REMOVAL AND DISPOSAL OF CLEARING AND GRUBBING DEBRIS

A. All materials removed shall be legally disposed of from the Site by the Contractor. No accumulation of flammable material shall remain on the Site. Burning of cleared and grubbed materials (or any fires) shall not be permitted. No rubbish or debris may be buried on the Site. The roadway and adjacent areas shall be left with a neat and finished appearance.

B. All debris, waste, and excavated materials become the property of the Contractor and shall be disposed of in a legal manner. The Owner reserves the right to take samples.

3.04 EXCAVATION

A. Do not excavate within tree protection zones, unless otherwise indicated. When excavating within tree protective zones, install shoring or other protective support systems to minimize sloping or benching of excavations.

B. Where utility trenches are required within tree protection zones, tunnel under or around roots by drilling, auger boring, pipe jacking, or digging by hand.

1. Root Pruning: Follow the direction of the certified arborist.

3.05 REGRADING

A. Grade Lowering: Where new finish grade is indicated below existing grade around trees, slope grade beyond tree protection zones. Maintain existing grades within tree protection zones.

B. Minor Fill: Where existing grade is 6 inches or less below elevation of finish grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.

C. Moderate Fill: Where existing grade is more than 6 inches but less than 12 inches below elevation of finish grade, place drainage fill (consisting of one half topsoil mixed with one half coarse sand conforming to SSPWC Table 200-1.5.5, Portland Cement Concrete gradation), filter fabric, and topsoil on existing grade as follows:

1. Carefully place drainage fill against tree trunk approximately 2 inches above elevation of finish grade and extend not less than 18 inches from tree trunk on all sides. For balance of area within drip-line perimeter, place drainage fill up to 6 inches below elevation of grade.
2. Place filter fabric with edges overlapping 6 inches minimum.
3. Place fill layer of topsoil to finish grade. Do not compact drainage fill or topsoil. Hand grade to required finish elevations.

END OF SECTION

SECTION 31 23 00
EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section includes all earthwork required for construction of the Work. Such earthwork shall include, but not be limited to: the loosening, removing, loading, transporting, depositing, grading and compacting in its final location of all materials wet and dry, as required for the purposes of completing the Work; the furnishing, placing, and removing of sheeting, shoring and bracing necessary to safely support the sides of all excavation; supporting structures above and below ground; all pumping, ditching, draining, dewatering, and other required measures for the removal or exclusion of water from the excavation; review of and compliance with all applicable permits; filling and compacting to elevations shown on the Contract Documents; excavation and removal of any boulders, cobbles, slurry, or other unforeseen subsurface conditions; stockpiling and screening of excavated material as needed; all backfilling of trenches and pits; the disposal of excess and unsuitable excavated materials; borrow of materials to make up deficiencies for fills; protection of all subsurface utilities not to be abandoned (whether or not they are identified on the Plans); repair of utilities if they are damaged; and all other incidental earthwork.

B. The elevations shown on the Plans of existing features are taken from the best available data and are intended to give reasonably accurate information. The Contractor is responsible for determining exact quantities of excavation and fill required.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 31 11 00, Clearing, Grubbing, Landscape & Tree Protection

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Comply with the current provisions of the following codes and standards:

1. ASTM C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates
1. ASTM D 422 Test Method for Particle-Size Analysis of Soils
2. ASTM D 1556 Test Method for Density of Soil in Place by the Sand Cone Method
3. ASTM D 1557 Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb (4.54-kg) Rammer and 18-in (457-mm) Drop
4. ASTM D 2166 Test Method for Unconfined Compressive Strength of Soils
5. ASTM D 2419 Test Method for Sand Equivalent Value of Soils and Fine Aggregate
6. ASTM D 2435 Test Method for One-Dimensional Consolidation Properties of Soils Using Incremental Loading
7. ASTM D 2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
8. ASTM D 4829 Test Method for Expansion Index of Soils
9. ASTM D 6938 Test Method for In Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

B. Standard Specifications:

1. SSPWC Section 211 - Material Tests
2. SSPWC Section 300 - Earthwork
3. SSPWC Section 306 - Open Trench Conduit Construction

1.04 SUBMITTALS

A. Review by the Engineer shall not relieve the Contractor of the responsibility for the adequacy of the shoring, dewatering, excavation, abandonment of ground penetrations, or for furnishing all equipment, labor, and materials necessary for performing the various parts of that Work. If, during the progress of the Work, it is determined by the Owner that the various measures implemented by the Contractor are inadequate, the Contractor shall, at its expense, make adjustments as may be necessary to perform the Work in a manner satisfactory to the Owner.

B. The following submittals shall be provided:

1. Sheeting, shoring, bracing, and/or sloping design prepared, signed, and stamped by a licensed professional Civil Engineer registered in California. Attention is directed to the provisions for "Shoring and Bracing Drawings" in Section 6705 of the California Labor Code and SSPWC Section 306. Prior to beginning any trench or structure excavation 5 feet deep or over, submit to the Engineer a detailed plan showing design of all shoring, bracing, and sloping of the sides of excavation, and other provisions for worker protection against the hazard of caving ground during the excavation of such trenches or structure excavation. The submittal(s) shall include a site location map referencing existing features; detailed plans; elevations, and various sections indicating all excavation slopes, shoring components and connections and showing all structures and utilities potentially influenced by the performance of shoring, trenching or structure excavation along with supporting calculations; notes including sequence of construction, materials, and other clarification as required by the California Labor Code, SSPWC, and the Contract Documents. Review of the submittal by the Engineer shall be for confirmation and the project files only. Approval of the submittal shall not be provided.

C. Submit plans of the proposed dewatering and surface water control method and equipment.

D. Submit the Contractor’s current OSHA Excavation Permit.

1.05 QUALITY ASSURANCE

A. At its discretion, the Owner or Owner’s Materials Inspector will monitor soils compaction efforts by the Contractor using a testing laboratory of the Owner’s choice at Owner’s expense using in-situ devices (nuclear gauge, probe, or similar). Contractor shall stop work as required to provide safe access to conduct the tests and make all necessary excavations to access below grade testing locations for compaction tests as directed by the Owner. All work in connection with compaction testing preparation shall be included in the Bid and no additional allowance will be made, therefor. The Owner will pay for the initial cost of all compaction tests. If any compaction fails to meet the relative compaction requirements set forth, the Contractor shall pay for subsequent compaction tests. The Owner may select testing locations at their discretion.

B. The maximum dry density at optimum moisture content will be determined in accordance with the latest version of ASTM D 1557. In-place field density tests will be performed in accordance with ASTM D 1556 (sand cone), and/or ASTM D 6938 (nuclear gauge). The type, number and location of field density tests will be determined by the Owner. If soil material is not at or within 2 percentage points above optimal moisture content, the Contractor shall either add water or

dry the soil material by moving the soil to aerate it sufficiently such that the optimum moisture content is achieved at no additional cost to the Owner.

C. When test results show that the installed material does not comply with the requirements, the Contractor shall remove unsatisfactory material and replace it with compliant material (subject to additional testing). Additional costs for removal and recompaction shall be the responsibility of the Contractor.

PART 2 - PRODUCTS

2.01 BACKFILL MATERIAL GENERAL REQUIREMENTS

A. Native material used for fill shall be free from organic matter, debris, or deleterious materials. Native materials must be screened and moisture conditioned (including drying if necessary). Rock fragments or poorly weathered material meeting the above criteria may be utilized provided those materials are not in concentrated pockets. All necessary testing and test reports by the Contractor to verify and demonstrate suitability of materials shall be at no additional expense to Owner.

B. Fill material shall not contain rocks, blocky material, or lumps over 6 inches in maximum dimension or more than 10 percent material larger than 4 inches. Rock fragments larger than 6 inches shall be removed or broken up into pieces smaller than four inches.

C. Fill material shall be non-expansive (EI<50; Imported Fill may be used to reduce the expansion index of native soil), have less than 60 percent passing the number 200 sieve, have a plasticity index of less than 15, and have a sand equivalent of at least 20.

PART 3 - EXECUTION

3.01 GENERAL

A. Protect all existing facilities and utilities to remain in place.

B. Utilize temporary shoring and sheeting if needed to protect existing facilities in place or if necessary, during utility abandonment.

C. The Contractor is responsible for safe and OSHA-compliant design, construction, and maintenance of temporary excavations, slopes, shoring, and sheeting, if necessary. Temporary excavations and slopes may be shown on the Plans; in these cases, they are for general information only and do not relieve the Contractor of responsibility of all aspects of excavation.

D. No additional compensation shall be allowed if boulders, cobbles, unexpected subsurface utilities, slurry, or other unexpected subsurface conditions are encountered.

E. Temporary slopes and excavations shall conform to OSHA regulations and local ordinances or building codes as applicable.

F. Temporary excavations and slopes shall be removed or backfilled as soon as they are no longer required.

G. The Contractor shall be responsible for maintaining temporary stockpiles, including right of way acquisition and hauling as necessary. Existing ground surfaces to be used for stockpiling shall be covered with temporary geotextile or PVC sheeting for the duration of the stockpiling.

Stockpiles shall be maintained in good condition, including keeping dust to a minimum and keeping the area clean.

H. Standing water and mud shall be removed prior to placement of fill materials or concrete.

I. Areas within the limits of the site shall be stripped and cleared of all construction debris, vegetation, old improvements, unsuitable fill, or other deleterious materials as needed prior to commencing earthwork.

J. Except when specifically indicated, excavation shall include the removal of all materials of whatever nature encountered, including all obstructions of any nature that would interfere with the proper execution and completion of the Work. The removal of said materials shall conform to the lines, grades, and cross sections shown or ordered. Furnish, place, and maintain all supports and shoring that may be required for the sides of the excavations, and all pumping, ditching, or other measures for the removal or exclusion of water, including dealing with storm water, groundwater (dewatering if required), and surface water reaching the Site from any source so as to prevent damage to the Work or adjoining property.

3.02 GRADING

A. Grading shall be performed to the lines and grades indicated on the Plans. Objectionable material (including protruding rocks) shall be removed within the grading limits and subgrades shall be continuously drained and dewatered as necessary. The Contractor shall install temporary grades, ditches, or other means necessary to mitigate surface water which may affect the condition or execution of grading work.

B. If during the execution of grading it is not possible to place material in the proper section of the Site, the Contractor shall stockpile it in approved areas until the material may be placed in its final position. No additional compensation shall be made for stockpiling or double handling of excavated material.

C. Final grading of the Site shall be performed to re-establish grades due to erosion, rutting, or settlement during construction.

3.03 POTHOLING

A. Contractor to perform exploratory excavation work to verify the location and depth of underground utilities and structures prior to commencing any excavation work.

B. Record surveyed potholing information on both the Contractor's redline markup plans.

C. Backfill potholes as soon as the necessary information has been obtained. Stabilize the excavation with sheeting and shoring as necessary.

3.04 DISPOSAL OF EXCESS AND UNSUITABLE EXCAVATED MATERIAL

A. Remove and legally dispose of all grubbed and excess/unsuitable excavated material. The Owner reserves the right to take samples of unsuitable/excess material. Provide the Owner with the location of the disposal of the material. All incurred expenses including soil handling, transportation and disposal or tipping fees, if applicable, shall be borne by the Contractor.

B. Unsuitable material shall be defined as material containing excessive amounts of organic matter, peat, blue clay, trash or debris; or as designated by the Owner's Materials Inspector; or debris produced by clearing, grubbing, and demolition of existing structures, pavement, or

pipe; or soil classified by test method ASTM D2487 as groups OL, CH, MH, OH or PT; or not meeting the grading or classification.

C. All waste and excess excavated materials shall become the property of the Contractor. This material shall be disposed of offsite and in a legal manner. The Owner reserves the right to take samples.

3.05 BACKFILL

A. Native Fill can be used as backfill for excavations or around the Site to establish necessary grades as long as organics and particles or aggregate larger than 6 inches in maximum dimension are removed, it meets the specified requirements for fill. Alternatively, Native Fill can be exported offsite and disposed of legally. If the subgrade is dried and desiccated, the exposed surface shall be scarified to a depth of 6 inches, moisture conditioned to at least 2 percent over optimum moisture, and compacted to at least 85 percent of the maximum dry density determined from ASTM D 1557.

B. Backfill materials shall be evenly placed in uniform horizontal loose lifts not exceeding 8 inches in thickness and compacted by mechanical means to a relative compaction value as required and determined by ASTM Test Method D1557. Each layer of fill material shall cover the length and width of the area to be filled before the next layer of material is placed. The moisture content of the material shall be controlled, and water shall be applied as necessary to achieve the specified compaction at optimum moisture content and for the prevention of dust nuisance. No fill material shall be placed on standing water in any excavation.

C. Backfill shall not be placed if materials are too wet (i.e. more than two percent above the optimum moisture content) to achieve proper compaction.

3.06 COMPACTION/TESTING OF FILL AND BACKFILL

A. Each layer of fill shall be mechanically compacted to the specified percentage of maximum dry density at optimum moisture content as determined by ASTM D 1557. Equipment that is consistently capable of achieving the required degree of compaction shall be used and each layer shall be compacted over its entire area while the material is at the required moisture content. Accommodate Owner compaction testing. Testing frequency shall be per the Owner. This might require that the Contractor stop compaction work in areas to be tested and dig shallow holes for testing equipment. Should compaction failures occur, testing frequencies shall be per the Owner. Any required re-testing will be at the Contractor's expense.

B. A compaction of 85 percent of maximum dry density is required in all applications unless otherwise noted.

3.07 CONTROL OF NUISANCE WATER/SEEPAGE

A. During the course of the Work, it may be necessary to prevent nuisance water from entering the Site. Capture of any nuisance water that enters the Site from surrounding areas is the responsibility of the Contractor and that water may be used for dust suppression or irrigation purposes around the Site or must be otherwise disposed of by the Contractor. Pumping of excavations and releasing the water offsite is not allowed without prior approval by the Owner. Obtain advance permission for nuisance water disposal prior to beginning Work.

B. The Contractor shall be responsible for any damage resulting from storm or drainage water or diversion of storm or drainage water caused by their operations.

C. The Contractor shall be responsible for design and execution of methods for controlling surface water and groundwater. The Contractor shall bear the cost of any fines that are levied against the Contractor or the Owner for failure to comply with any applicable laws or regulations.

D. Trenches and excavations shall be dewatered to maintain a water level at least six inches below the bottom of the excavation. Pipe or construction materials shall not be laid in water or submerged. Water shall not flow over concrete within 3 Calendar Days of placement.

E. Submersible pumps shall be surrounded by a suitable filter aggregate to prevent fines from being removed during pumping. Stand-by pumps shall be available onsite. Maintain continuous dewatering until the pipe or structure has been adequately backfilled or until concrete has set for 3 Calendar Days.

END OF SECTION

APPENDIX H

ENVIRONMENTALLY REGULATED MATERIALS SURVEY

CITADEL EHS

assess • resolve • strengthen

December 1, 2020

Ms. Devi Nallamala, P.E.
Project Manager
COUNTY OF VENTURA PUBLIC WORKS AGENCY,
ENGINEERING SERVICES DIVISION
800 South Victoria Avenue,
Ventura, California 93009-1670

Re: CITADEL Project No. 2007.1010.0
Environmentally Regulated Materials Survey Report
Colston Center
375 Hillmont Avenue
Ventura, California 93003

Dear Ms. Nallamala:

Enclosed please find Citadel EHS Environmentally Regulated Materials (ERMs) Survey Report for the above-referenced location.

The ERMs survey was conducted for the County of Ventura Public Works in accordance with the Contract Work Order PW21-039 and a mutually agreed upon scope of work.

If after your review you have any questions or require additional information, please do not hesitate to telephone me at the Citadel Office at (818) 246-2707.

Sincerely,
CITADEL EHS

Anthony Price
Principal, Business Development

Enclosure

CITADEL EHS

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COUNTY OF VENTURA PUBLIC WORKS AGENCY,
ENGINEERING SERVICES DIVISION
800 South Victoria Avenue,
Ventura, California 93009-1670

Environmentally Regulated Materials Survey Report

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Colston Center
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Ventura, California 93003

www.CitadelEHS.com

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APPENDICES

1.0 INTRODUCTION

Citadel EHS was contacted by the County of Ventura Public Works Agency's Engineering Services Agency (Client) to provide a proposal to perform an Environmentally Regulated Materials (ERMs) Survey for the former Colston Center property located at 375 Hillmont Avenue in Ventura, California (Site). The Site consists of a one-story building that measures approximately 17,244 square feet square foot (SF). The Client provided Citadel with the following Report;

- Ventura County Healthcare Agency, Colston Center, Schematic Design Study, prepared by Rasmussen & Associates, dated February 2009

Inspection for the following items was included in the scope of work.

- Asbestos-containing materials/asbestos-containing construction materials (ACMs/ACCMs);
- Representative lead-containing coatings and finishes, herein "lead-containing materials (LCMs);
- Suspect light ballasts filled with Polychlorinated Biphenyl (PCBs) and Diethylhexl Phthalate (DEHP) dielectric fluids;
- Suspect PCB caulks, putties, and elevator hydraulic fluid;
- Universal/electronic/radioactive wastes consisting of fluorescent light tubes, mercury ampoules in pneumatic controls, switchboards, gauges, batteries, and thermostats, electronic waste {e.g., cathode ray tube (CRT) devices (including televisions and computer monitors, etc.)}, and radioactive materials (smoke detectors and exit signage); and
- Ozone Depleting Substances (ODS) {Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFC)} such as refrigerants related to roof-top cooling units.

The survey was conducted on October 27th and 28th, 2020 by Citadel representatives Edward J. Wood and Adrian Tercero. Mr. Wood, is a California Certified Asbestos Consultant (CAC) (No. 97-2208) and California Department of Public Health (CDPH) Certified Lead Inspector/Assessor (LRCIA) (No. LRC-00000980). Mr. Tercero is a CDPH Lead-Related Construction Sampling Technician (LRCST) (No. 26529). All work was performed under the general supervision of, and this report was written by Mr. Anthony Price a DOSH CAC (No. 07-4200) and CDPH LRCIA (No. LRC-00000625). The report was reviewed by Mr. Jack Samuels, a DOSH CAC (No. 92-0475) and CDPH LRCIA (No. 5380). Project team certifications can be found in Appendix **A**.

2.0 SURVEY METHODOLOGIES

FIELD METHODOLOGIES – ASBESTOS

Citadel began the field survey by visually inspecting the project area to categorize suspect ACMs/ACCMs to be impacted by the project. Suspect ACMs/ACCMs were categorized by homogeneous areas (HAs). HAs consist of groupings of materials that have uniform appearances, textures, and installation dates. Following the walk through, representative bulk samples of suspect ACMs/ACCMs were then collected. As the samples were collected, the locations of the HAs and samples were marked on field sketches. Locations of visible debris, if observed, were also noted where observed.

ACMs/ACCMs Condition Assessment

Materials were assessed to be in good, *damaged*, or *significantly damaged* condition based on how their condition at the time of the survey related to the following:

- ***Good Condition -*** No or very limited visible damage or deterioration was observed.
- ***Damaged Condition -*** Crumbling, blistering, water damage, gouges, or other damage was observed over less than 25% of the materials (one-tenth if evenly distributed); or accumulation of suspect powder, dust or debris below the material was observed.
- ***Significantly Damaged Condition -*** Crumbling, blistering, water damage, gouges, or other damage was observed over greater than 25% of the material (one-tenth if evenly distributed); material is delaminating or showing adhesive failure; or accumulation of suspect powder, dust or debris below the material was observed.

FIELD METHODOLOGIES – LEAD CONTAINING MATERIALS (LCMS)

X-Ray Fluorescence (XRF SA) (SCREEN)

A limited lead inspection/screening was conducted to test predominant surface paints/coatings on surface area components, such as walls, floors, doors, door frames, window frames, support poles, etc. for lead-based paints and lead-containing paints. Citadel utilized X-Ray Florescence Spectrum Analysis (XRF-SA) to test suspect paints and coatings. Assays (tests) were taken from interior painted/coated surfaces as necessary.

The XRF irradiates the paint on a given surface causing the lead in the paint, if present, to emit a characteristic frequency of x-ray radiation. The intensity of this radiation is measured by the detector and related to the amount of lead in the paint. The type of XRF used in this survey was a Niton XLP-303A X-Ray Fluorescence Spectrum Analyzer. The XRF analyzer provides an in-the-field determination of suspect LBP without the need to collect substantial numbers of paint chip samples for subsequent laboratory analysis.

In order to obtain a reading, the XRF was placed with the face of the instrument flush against the surface to be tested. It was then held in place for the duration of the sample, which was determined by the instrument. At the conclusion of the sample time, the lead concentration was displayed on the device's readout screen. The values, expressed in milligrams per square centimeter (mg/cm^2), are stored in the device and can be recalled by the inspector upon downloading into computer software. The Niton is sensitive to 0.01 milligrams per square centimeter (mg/cm^2) of lead.

The instrument, equipped with a sealed radioactive source, was operated by certified personnel in accordance with manufacturer requirements and applicable regulations. The operator calibrated the XRF-SA pursuant to the manufacturer's specifications and regularly verified XRF-SA readings against pre-determined lead samples produced by the National Institute of Standards and Testing (NIST). All of these quality control measures produced a 95% confidence level that the XRF-SA readings accurately reflected the actual level of lead in the tested surfaces.

FIELD METHODOLOGIES – POLYCHLORINATED BIPHENYLS (PCBS)/DI(2-ETHYLHEXL) PHTHALATE (DEHP)

The inspection for polychlorinated biphenyls (PCBs) and di(2-ethylhexl) phthalate (DEHP) consisted of a visual inspection of the type(s) of equipment found in the survey area that commonly use dielectric fluids. Items such as fluorescent lighting ballasts were visually inspected to determine if: (1) they were "wet" ballasts (contain dielectric fluids) as opposed to magnetic, and (2) if the ballasts were labeled "No PCBs" or "Does Not Contain PCBs." Wet ballasts were assumed to contain PCBs or DEHP unless so labeled. As required by Federal and State law, all ballasts

manufactured post-1978 are required to be labeled with the aforementioned language. Please note that sampling of energized equipment was not possible during the survey. This portion of the survey was not intended to be comprehensive, but rather sought to identify potential hazards that will be encountered during the project.

Citadel also conducted an investigation of weather stripping, putties, caulks, and elevator hydraulic fluid suspected of containing PCBs. Caulk samples were collected by physically removing sections of caulk using clean knives, scalpels, tweezers, razor, spatula, utility knife, paint scraper, putty knife, or other hand tools, as (or other clean implements, as needed), and placed in pre-cleaned glass sample containers with Teflon-lined caps. The elevator hydraulic fluid was collected and placed in a pre-cleaned one-Liter amber glass bottle with a Teflon-lined cap. At the field collection site all samples were stored in coolers with ice packs sufficient to maintain a temperature of approximately 4°C. Samples were then be transported to the laboratory with ice packs sufficient to maintain a temperature of approximately 4° C (39.2°F) as well.

FIELD METHOLOGIES – UNIVERSAL/ELECTRONIC/RADIOACTIVE WASTES

The inspection for Universal/Electronic/Radioactive Wastes consisted of visual inspection of the project site to determine if Universal/Electronic/Radioactive Wastes were present. This portion of the survey was not intended to be comprehensive, but rather sought to identify potential hazards that will be encountered during the project.

FIELD METHODOLOGIES – OZONE DEPLETING SUBSTANCES (ODS)

Under Title VI of the Clean Air Act (CAA), US Environmental Protection Agency (USEPA's) Stratospheric Protection Division is responsible for several programs that protect the stratospheric ozone layer. Several types of refrigerants and propellants have been defined as Ozone Depleting Substances (ODS) by the EPA. These include, but are not limited to, Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFC), as well as Halon, Sulfur Dioxide (SO2), and Ammonia (NH3).

Citadel visually inspected the building(s) for the following suspect ODS-containing equipment and appliances: refrigerators, freezers, dehumidifiers, window-mounted air-cooling units, and forced-air furnaces with cooling units, as well as propellants in fire suppression equipment. This portion of the survey was not intended to be comprehensive, but rather sought to identify potential hazards that will be encountered during the project.

3.0 RESULTS

ASBESTOS

Asbestos Definitions

Asbestos-Containing Materials (ACM): The EPA's Asbestos NESHAPs and the Ventura County Air Pollution Control District (VCAPCD), the local air pollution control district, define an asbestos-containing material as any material that contains a concentration of asbestos of greater than one percent (>1.0%) by area as determined by PLM (Federal Register, Volume 59, No. 146, August 1, 1994, P. 38970-38971). NESHAPs and VCAPCD Rule 62.7 further segregate asbestos-containing materials into *Regulated Asbestos-Containing Materials (RACM)*, *Category I Non-Friable Materials*, and *Category II Non-Friable Materials*, which are defined as follows:

- **Regulated Asbestos-Containing Materials (RACM)/Asbestos-Containing Materials (ACM):** Includes all friable asbestos materials, Category I/Class I Nonfriable ACM that have become friable or will become friable, and Category II/Class II Nonfriable ACM that have a high probability of being crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of renovation or demolition.

- ***Category I Nonfriable ACM/Class I Nonfriable ACM:*** Includes asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products that when dry can be crumbled, pulverized, or reduced to powder by hand pressure in the course of renovation and demolition activities.
- ***Category II Nonfriable ACM/Class II Nonfriable ACM:*** Includes all non-friable materials, excluding *Category I/Class I Nonfriable ACM* that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Asbestos-Containing Construction Materials (ACCM): The California Department of Occupational Safety and Health (Cal/OSHA) further defines an asbestos-containing construction material (ACCM) as a material that contains greater than one-tenth of one percent (>0.1%) asbestos.

Presumed Asbestos-Containing Material (PACM) means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos. PACM may also be used in this report to identify additional suspect ACM that was not sampled but should be assumed to be ACM.

Asbestos Results

During the survey, a total of 111 asbestos bulk samples were collected and submitted for analysis. With Laboratory layering a total of 148 samples were analyzed. The bulk samples were submitted to LA Testing in South Pasadena, California, for analysis by polarized light microscopy (PLM) for asbestos content using EPA 600/R-93/116 Method. The EPA method is a semi-quantitative procedure with a detection limit of one-tenth to one percent (0.10 – 1.0%) by area, dependent upon the material being analyzed.

Table A.1 below summarize the materials identified and sampled to be **Asbestos Containing Materials (ACM)** (>1.0% asbestos) in the project area, along with the locations of each material:

TABLE A.1

MATERIAL TYPE	HA NO.	LOCATION(S)	APPROX. QUANTITY[1]	SAMPLE #	ASBESTOS CONTENT/ CONDITION
12"x12" Vinyl Floor Tile, Tan (Bottom Layer)	12VFT2	1st Floor, Lobby, North and South Corridors and Rooms	~6,400 SF	007, 009, 011	3%-5% Chrysotile /Good
Floor Tile Mastic, Black A/W 12VFT2	FTM2	1st Floor, Lobby, North and South Corridors and Rooms	~6,400 SF	008, 010 012	8% Chrysotile /Good
Vinyl Sheet Flooring, Tan	VSF4	1st Floor, West Storage/Break Room	~500 SF	029, 030	3% Chrysotile /Good
Carpet Mastic, Yellow	FCM1	1st Floor, Lobby Area	~800 SF	031	5% Chrysotile /Good
Thermal System Insulation, White, Elbows and Fiberglass Runs	PFI1	1st Floor, Lobby @ Storage Above Ceiling	~10 SF	061, 062, 063	4%-12% Chrysotile 2% Amosite /Good

[1] All quantities (SF/LF/EA) provided by Citadel are estimates. Contractors are responsible for field verifying actual quantities of materials

MATERIAL TYPE	HA NO.	LOCATION(S)	APPROX. QUANTITY[1]	SAMPLE #	ASBESTOS CONTENT/ CONDITION
Under Sink Mastic, Black	USM1	1st Floor, West Storage/Break Room	~10 SF 3 Each	070, 071, 072	3%-10% Chrysotile /Good
Roof Tile, Gray, Soft	RS1	Roof	~3,456 SF	094, 095, 096	2% Chrysotile /Good
Roof Patch, Silver	RP1	Roof, West Center	~20 SF	106, 107, 108	2%-4% Chrysotile /Good

Table A.2 below summarize the materials identified and sampled to be **Asbestos Containing Construction Materials (ACCM)** (> 0.1%, but ≤1.0% asbestos) in the survey area, along with the locations of each material:

TABLE A.2

MATERIAL TYPE	HA NO.	LOCATION(S)	APPROX. QUANTITY[2]	RECOMMENDED MANAGEMENT ACTION
None Identified	N/A	N/A	N/A	N/A

Table A.3 below summarize the materials that were inaccessible and possibly present or were not sampled and are categorized as **Presumed Asbestos Containing Construction Materials (PACM)**:

TABLE A.3

MATERIAL TYPE	LOCATION(S)	APPROX. QUANTITY	RECOMMENDED MANAGEMENT ACTION
None Identified	N/A	N/A	N/A

Table A.4 below summarizes the materials that were reported by the laboratory to not contain detectable quantities of asbestos **None Detected or ND** or contained less than 0.1% asbestos by the Point Count procedure:

TABLE A.4

MATERIAL TYPE	HA NO.
12"x12"' Vinyl Floor Tile, White/Gray (Top Layer) *	12VFT1
Floor Tile Mastic, Black A/W 12VFT1*	FTM1
12"x12" Vinyl Floor Tile, Light Pink	12VFT3
Floor Tile Mastic, Black A/W 12VFT3	FTM3
Vinyl Sheet Flooring, Beige	VSF1
Vinyl Sheet Flooring, Gray Mosaic	VSF2
Vinyl Sheet Flooring, Gray	VSF3
Baseboard Mastic, Cream	FBM1
Floor Leveling Compound, White, Float	FLC1
Wall and Ceiling Plaster, Gray	WPF1
Button Board, White	MISC1

[2] All quantities (SF/LF/EA) provided by Citadel are estimates. Contractors are responsible for field verifying actual quantities of materials.

MATERIAL TYPE	HA NO.
2'x4' Ceiling Panels, White	4CP1
4'x4' Straw Ceiling Panels, White	MISC2
Spray-Applied Acoustical Ceiling, White	SAC1
Drywall, White	WSR1
Joint Compound, White A/W WSR1	WJC1
Cinder Block Grout, Gray	MISC3
Glass Window Grout, White	MISC4
Exterior Stucco, Grey	ES1
Roof Penetration Mastic, Gray/Black	RPM1
Roof Cap Sheet Felt, Gray, Tar, Core	RFM1
Rock Roof Felt, Black	RFM2
HVAC Duct Seam Tape, White	HVT1
Roof Shingle, Red, Hard Clay	RS2
Field Mastic, Gray, Smooth Cap Sheet	RFM3
Flashing Mastic, Black	RF1
Pitch Pocket Mastic, Black	MISC5

The drawings with bulk sample locations can be found in Appendix **B**. A detailed summary of bulk samples collected may be found in Appendix **C**, Table 1.0 – *Bulk Sample Results.* Detailed information pertaining to the location of homogeneous asbestos-containing materials is presented in Appendix **D**, Table 2.0 – *Summary by Material*. LA Testing's bulk sample laboratory results may be found in Appendix **E**.

LEAD-CONTAINING MATERIALS

Lead Definitions

- **Lead Containing Paint (LCP)** - A lead-containing paint is a paint or coating that contains any detectable concentration of lead.
- **Lead Based Paint (LBP) -** The California Department of Public Health (CDPH) and the US Department of Housing and Urban Development (HUD) define Lead-Based Paint (LBP) as paint containing lead greater than or equal to 1.0 milligram per square centimeter (≥mg/cm2) or greater than or equal to 0.5% by weight also expressed as 5,000 parts per million (≥5,000 ppm).
- **Lead Containing Material (LCM)** - A lead-containing material may consist of identified lead-containing paint (LCP), lead-based paint (LBP), or other materials such as lead sheeting, ceramic tile glazing, etc., or presumed LCMS.
- **Presumed Lead-Based Paint (PLBP)** - Title 17, California Code of Regulations, Division 1, Chapter 8 defines as paint or surface coating affixed to a component in or on a structure constructed prior to January 1, 1978 as a presumed lead-based paint unless it has been tested and found to contain an amount of lead less than one milligram per square centimeter 1.0 mg/cm^2 (<1.0 mg/cm^2) or less than 0.5% (< 0.5%) by weight.

A total of 68 assays (tests) (excluding "Null" and "Calibration Readings"), using the XRF-SA were conducted during the survey.

XRF-SA results may be found in Appendix **F**, Table 3.0 – XRF-SA Results;

Tables B.1 below summarize the materials identified and sampled to be **Lead-Based Paints (LBP)** (detectable quantities of lead in concentrations of ≥5,000 ppm or ≥1.0 mg/cm^2) in the project area:

TABLE B.1

READING NO.	COMPONENT	SUBSTRATE	COLOR(S)	LOCATION(S)
17, 48, 68	Sink(s)	Porcelain	White	1st Floor, Restroom and Closet
66	Wall Tile	Ceramic	Beige	1st Floor, Restroom

See Appendix **G** - Table 3.1 for complete list of LBP materials.

See Appendix **H** - Table 3.2 for a summary of materials identified and sampled to be **Lead-Containing Paints (LCP)** (detectable quantities of lead in concentrations of <5,000 ppm or ≥0.01 mg/cm^2 and <1.0 mg/cm^2) in the project area.

POLYCHLORINATED BIPHENYLS (PCBS)/DI(2-ETHYLHEXL) PHTHALATE (DEHP) VISUAL INSPECTION

Fluorescent light ballasts with wet (liquid) capacitors utilize dielectric fluids that may contain PCBs or DEHP dielectric fluids.

PCBs are regulated under 40 CFR Part 761 as part of the Toxic Substances Control Act (TSCA). The PCB regulations and requirements apply to both PCB waste materials and PCBs still in use. States and the Federal Government regulate the use, storage, and disposal of equipment containing PCBs, depending upon the concentrations of PCBs present.

DEHP is regulated under the Resource Conservation and Recovery Act (RCRA), "Superfund", Superfund Amendments, Clean Water Act, Safe Drinking Water Act, OSHA, and by the Food and Drug Administration.

PCB and DEHP Definitions

Environmental Protection Agency: 40 CFR Part 761 Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions has established the following threshold limits for liquid and non-liquid materials containing PCBs:

- **PCB-Contaminated Electrical Equipment** is defined as a liquid material (homogenous flowable material containing no more than 0.5% by weight non-dissolved material) that contains concentrations of PCBs at ≥50 ppm and <500 ppm, or where insufficient liquid is available for analysis, a non-porous surface having a PCB concentration of >10 µg/100 cm^2 but <100 µg/100 cm^2 as measured by a standard wipe test. Electrical Equipment includes, but is not limited to, transformers, capacitors, circuit breakers, re-closers, voltage regulators, switches, electromagnets, and cable.
- **PCB-Contaminated** is defined as a non-liquid material (does not flow at room temperature of 25 °C or 77 °F) that contains concentrations of PCBs at ≥50 PPM but <500 PPM; a liquid material that contains concentrations of PCBs at ≥50 ppm but <500 ppm, or where insufficient liquid is available for analysis, a non-porous surface having a PCB concentration of >10 µg/100 cm^2 but <100 µg/100 cm^2 as measured by a standard wipe test.
- **PCB Capacitor** is defined as any capacitor that contains concentrations of PCBs at ≥500 ppm.
- **PCB Transformer** is defined as any transformer that contains concentrations of PCBs <500 ppm.

- **PCB Bulk Product Waste** is defined as waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where at the time of designation for disposal the concentration of PCBs was ≥50 ppm. Fluorescent light ballasts with labels that do not contain the words "No PCBs" or "Does Not Contain PCBs" are considered a PCB Bulk Product Waste.
- **Di(2-ethylhexl) phalate** is a colorless, odorless, toxic liquid used in dielectric fluids from 1979 to 1991.

State of California-Department of Toxic Substances Control (DTSC): The DTSC enforces Title 22 of the California Code of Regulation, Chapter 11, Article 3, δ 66261.20-24 which has established the following threshold limits for PCBs in solid waste material:

Table C.1 below summarize the **PCB** and **DEHP** containing equipment identified at the project site, along with the locations and estimated quantities of each material:

TABLE C.1

MATERIAL TYPE	LOCATION	APPROXIMATE QUANTITY
Light Fixture Ballasts	Throughout	151
Circuit Breakers/Transformers	Throughout	11

UNIVERSAL/ELECTRONIC/RADIOACTIVE WASTES

Universal Wastes

The *Universal Waste Rule* found in the California Code of Regulations (CCR), Title 22, division 4.5, Chapter 23, regulates the disposal of the following items such as:

- Mercury thermostats (ampoules);
- Batteries, including rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, small sealed lead acid batteries (burglar alarm and emergency light batteries), most alkaline batteries, carbon zinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste (§66261.20 through §66261.24);
- Lamps, including fluorescent tubes, high intensity discharge lamps, sodium vapor lamps, and any other lamps that exhibit a characteristic of a hazardous waste;
- Non-empty aerosol cans;
- Mercury switches, including thermostats and tip switches in portable heaters, washing machine out-of-balance switches, silent wall switches, and other mercury-containing switches and products containing them;
- Mercury thermometers;
- Mercury pressure or vacuum gauges, including U tube manometers, barometers, and sphygmomanometers (blood pressure meters.);
- Medical devices containing mercury including, dilators and weighted tubing;
- Mercury-containing rubber flooring, including older gymnasium floors that were poured in place to form indoor tracks and gymnastic areas;
- Mercury gas flow regulators managed exclusively by natural gas utilities;
- Counterweights and dampers, including devices that use pouches of high density mercury to dampen shaking on hunting bows and snow skis or to absorb recoil on shotguns;
- Consumer electronic devices, including cell phones, game consoles, and computers; and

- Mercury gauges, including vacuum and pressure gauges, including blood pressure gauges, barometers, and manometers.

Tables D.1 below summarize **universal/electronic/radioactive** wastes identified or assumed to be present at the project site, along with the locations and estimated quantities of each material:

TABLE D.1

MATERIAL TYPE	LOCATION	APPROXIMATE QUANTITY
Fluorescent Light Tubes	Throughout	323
Light Bulbs	Throughout	60
Smoke Detector	Throughout	29
Thermostats	Throughout	5
Emergency Lights	Throughout	4
Batteries	Throughout	4
Microwave	Throughout	1

Ozone Depleting Substances Definitions

A chlorofluorocarbon (CFC) is an organic compound that contains carbon, chlorine, and fluorine, produced as a volatile derivative of methane and ethane. A common subclass is the hydrochlorofluorocarbons (HCFCs), which contain hydrogen, as well. They are also commonly known by the DuPont trade name Freon. The most common representative is dichlorodifluoromethane (R-12 or Freon-12). Many CFCs have been widely used as refrigerants, propellants (in aerosol applications), and solvents. The compounds are suspected of contributing to ozone depletion.

Under Title VI of the Clean Air Act (CAA), US Environmental Protection Agency (USEPA's) Stratospheric Protection Division is responsible for several programs that protect the stratospheric ozone layer. Several types of refrigerants and propellants have been defined as Ozone Depleting Substances (ODS) by the EPA. These include, but are not limited to, Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFC), as well as Halon, Sulfur Dioxide (SO2), and Ammonia (NH3).

Tables E.1 below summarize the **Ozone Depleting Substances** identified or assumed to be present at the project site, along with the locations and estimated quantities of each material:

TABLE E.1

MATERIAL TYPE	LOCATION	APPROXIMATE QUANTITY
Refrigerators	Throughout	1
Fire Extinguishers	Throughout	30

4.0 CONCLUSIONS AND RECOMMENDATIONS

ASBESTOS

The results of the survey indicate that ACMs are present in the area(s) surveyed. Citadel's scope of work and testing of representative areas was limited to accessible building materials specifically identified as being impacted by the proposed work to be performed. Areas outside of the specific areas identified in this scope of work were not included as part of this investigation.

If similar materials are found elsewhere in the building, and were not specifically sampled, they should be assumed to be the same, and treated as such.

All asbestos removal operations shall be performed by a Cal/OSHA-DOSH-registered and California-licensed asbestos contractor. All disturbances of asbestos-containing materials, and/or abatement operations, should be performed under the surveillance of a third-party Cal/OSHA Certified Asbestos Consultant retained by the Client.

All disturbances of asbestos-containing materials, and/or abatement operations, must be performed in accordance with the Cal/OSHA requirements set forth in 8 CCR 1529. Given the location of the subject facility, all asbestos abatement must also be performed in accordance with VCAPCD Rule 62.7.

Finally, notification of the presence and location of asbestos-containing materials shall be made to all employees and vendors who work within the subject structure, in accordance with California Health and Safety Code, Section 25915, et seq. (also known as Connolley Notification Bills).

Citadel recommends that all undamaged ACMs, ACCMs, and PACMs not to be disturbed as part of this project and scheduled to remain be managed in place in accordance with the EPA's guidance document Managing Asbestos In-Place (a.k.a., the Green Book). The Green Book can be obtained by calling the Toxic Substance Control Act Hotline at (202) 554-1404. Citadel also recommends that the materials be managed in place in accordance with the Client's Operations and Maintenance (O & M program) addressing building cleaning, maintenance, renovation, and general operation procedures to minimize exposure to asbestos.

LEAD-CONTAINING MATERIALS

Lead-Containing Materials/Lead-Based Paints (LCM/LBP)

This survey revealed that building components coated with LCM/LBP are present in areas within the project area.

If similar materials are found elsewhere in the buildings, and were not specifically tested, they should be assumed to be the same, and treated as such.

At present there is no explicit state or federal regulations requiring mandatory lead removal prior to disturbance or demolition of structures with identified lead materials. However, there are applicable Cal/OSHA worker protection and training requirements, Cal/EPA waste disposal requirements, CDPH requirements for public and residential buildings, and SB 460 lead hazard regulations that apply to lead-related construction activities and their associated wastes

The following is a brief discussion and summary of applicable regulatory requirements:

- **Cal/OSHA:** 8 CCR 1532.1 governs occupational exposure to lead. This regulation requires that prior to initiation of certain activities, referred to as "trigger tasks", workers must be trained, medically evaluated, and properly fitted with respiratory protection, and protective clothing until statistically reliable personal eight-hour Time Weighted Average (TWA) results indicate lead exposure levels below the Personal Exposure Limit (PEL) for each unique task which disturbs lead-based and lead-containing coatings. This process is known as a Negative Exposure Assessment (NEA). If the result of the exposure assessment is above the Action Level (AL), additional monitoring is required, and if the result is above the PEL, additional exposure monitoring, worker protection (including respirator protection and PPE), training and medical requirements apply. At a minimum, contractors performing any lead in construction work shall have a hand washing station and HEPA vacuum present on the job site.
- "Trigger tasks" are tasks that are assumed to exceed the PEL pending an exposure assessment and encompass the majority of construction activities that disturb surface coatings. Examples of "trigger tasks" range from manual paint scraping as a lower

expected exposure up to hot work and abrasive blasting as the highest expected exposures, and include any non-listed task that the employer determines may potentially expose employees to lead levels above the AL.

NOTE: "OSHA does not consider any method that relies solely on the analysis of bulk materials or surface content of lead (or other toxic material) to be acceptable for safely predicting employee exposure to airborne contaminates. Without air monitoring results or without the benefit of historical or objective data (including air sampling, which clearly demonstrates that the employee cannot be exposed above the AL during any process, operation, or activity) the analysis of bulk or surface samples cannot be used to determine employee exposure." OSHA Standard Interpretation dated 5/8/2000.

Furthermore, Cal/OSHA states that these rules apply to "any detectable concentration of lead", without a specified detection level. Due to the Consumer Product Safety Commission currently allowing paint to contain up to 600 parts per million (ppm) of lead for residential consumption and no limits for industrial or commercial coatings, the variation of lead content due to aging and weathering, and the variation of detection limits associated with both paint chip and XRF analysis, all coated surfaces should be treated as potentially containing lead, unless bulk sample analysis indicates that no lead was detected. Positive analytical results can be utilized to indicate that detectable lead is present, but negative XRF results cannot be interpreted as conclusively demonstrating the absence of lead.

Analytical data can be helpful in evaluation of lead-related environmental risks in general but cannot be used to calculate worker exposures and are not a substitute for employee exposure monitoring. As a result of the above, any employee that works around potential lead-based or lead-containing coatings should have hazard communication training (lead awareness) training and personal exposure air monitoring if they will potentially disturb such coatings. Significant additional certification, notification, and work practices are required for materials found to be "lead-based" or where the operation or process involved results in airborne lead exposures exceeding the PEL.

- Any welding, cutting, or heating of metal surfaces containing surface coatings should be conducted in accordance with 29 CFR 1926.354 and 8 CCR 1537. These regulations require surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application. There are some provisions for conducting hot work on coated surfaces, but only with required respiratory protection such as properly selected supplied air respirators.
- **Cal/EPA** through the Division of Toxic Substance Control (DTSC) regulates disposal of lead hazardous waste (22 CCR Division 4.5, Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes). It is the responsibility of the waste generator to evaluate all waste streams produced and ensure that any resulting wastes that may be hazardous under California and Federal RCRA standards for lead be properly handled, packaged and transported under proper manifest to a permitted hazardous waste storage, treatment and disposal facility.
- **CDPH**: The Department of Public Health (DPH) has specific requirements (Title 17 Sections 35001 thru 36100) for hazard assessment and work involving lead-based paint (LBP) hazards in public or residential structures. These regulations require special certifications, work practices, and notifications for such activities.
- **Senate Bill 460 (SB 460)**: An act to amend Section 1941.1 of the Civil Code, and to amend Sections 17961, 17980, and 124130 of, and to add Sections 17920.10, 105251, 105252, 105253, 105254, 105255, 105256, and 105257 to, the Health and Safety Code, relating to lead abatement. This bill allows for fines and criminal penalties to be levied on any person who is found to have performed lead abatement without containment or created a measurable lead hazard based upon current CDPH standards. The testing for this

determination can be initiated by any local official. A determination of a lead hazard is not solely based upon the lead content of the paint or coating and can be the result of the disturbance of such materials with low concentrations of lead.

- **EPA Lead Renovation, Repair, and Paint Rule (40 CFR, Part 745):** Beginning in April 2010, contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities, and schools built before 1978 must be certified and must follow specific work practices to prevent lead contamination.

POLYCHLORINATED BIPHENYLS (PCBS)/DI (2-ETHYLHEXL PHTHALATE (DEHP)

Field observation by Citadel indicated that items potentially containing PCBs/DEHPs are present throughout the project site. This portion of the survey was not intended to be comprehensive, but rather sought to identify potential hazards that will be encountered during the project.

Typically, during demolition, the contractor will dismantle the fluorescent light fixtures by removing the tubes and then the ballasts and package them for recycling and disposal, regardless of the ballast labeling. The recommended disposal method for ballasts is recycle/incineration whereby the PCB and DEHP capacitors and asphalt potting material are removed and incinerated, and the metal carcasses are cleaned and sent to a metal recycler. This portion of the survey was not intended to be comprehensive, but rather sought to identify potential hazards that will be encountered during the project.

The PCB caulk and liquid (hydraulic fluid) samples did not contain detectable PCB levels. All three PCB sample results were below the regulatory limit of 50 parts per million (ppm).

UNIVERSAL/ELECTRONIC/RADIOACTIVE WASTES

Citadel visually identified wastes present throughout the project site. In accordance with regulatory requirements, Universal/Electronic/Radioactive Wastes should be removed prior to demolition activities and set aside for re-use or disposal/recycling by a licensed recycler or specific licensee.

Citadel recommends either re-using the light tubes, lamps, or monitors, or utilizing a licensed recycler to process the Universal/Electronic Wastes removed from the project site. Recycling facilities must be authorized by the California Environmental Protection Agency – Department of Toxic Substances Control (DTSC) or the state in which they are located.

Bill(s) of lading should accompany each load of waste that leaves the site, including the name and address of the Generator, Contractor, pick-up site, disposal site, and quantity of universal waste disposed. The recycler should provide a statement certifying recycling/disposal/destruction of the identified wastes, including the date(s) of recycling/disposal/destruction, and identifying the disposal/destruction process used. In the case of Tritium-containing exit devices, the general licensee must file a report with the NRC. This portion of the survey was not intended to be comprehensive, but rather sought to identify potential hazards that will be encountered during the project.

OZONE DEPLETING SUBSTANCES

Citadel visually identified Ozone Depleting Substances present throughout the project site. Packaged Components Chlorofluorocarbons (CFCs), Hydrochlorofluorocarbons (HCFC), as well as Halon, Sulfur Dioxide (SO_2), and/or Ammonia (NH_3) should be extracted from the fire extinguishers, freezers, HVAC units, and other ODS-containing equipment by a trained technician for recovery or recycling prior to demolition. This portion of the survey was not intended to be comprehensive, but rather sought to identify potential hazards that will be encountered during the project.

5.0 SURVEY LIMITATIONS

The survey and bulk sampling were limited to representative locations of the building(s) that were explicitly defined by the Clint to be surveyed. Limited intrusive and no destructive sampling was conducted as part of the scope of services performed. Additional suspect materials and/or debris may be present in concealed spaces including, but not limited to, above-ceiling areas, within wall cavities, and beneath floor coverings, but will only be accessible during the course of demolition activities. Care should be exercised when accessing these areas. Any suspect environmentally regulated materials (ERMs) encountered during the course of demolition/renovation activities that were not previously sampled, including ERMs not specifically addressed herein, should be *presumed* to be ACMs/ACCMs and LCMs until sampled and proven otherwise. The areas that were accessible should be representative of the types, quantities, and conditions of the materials present at the site. Quantities presented in this report are for informational purposes only and should not be the sole basis for an estimate for abatement. Contractors should verify and conduct their own takeoffs for their purposes.

This report has been prepared by Citadel EHS exclusively for our Client and their Authorized Representatives. The information contained herein pertains only to accessible materials identified at the referenced property at the time of the survey performed in accordance with a mutually agreed upon scope of work. The findings and recommendations presented are based upon observations of present conditions and may not necessarily indicate future conditions. Citadel EHS implies no warranty to the accuracy of information provided them by outside agents and transmitted herein. The information contained herein may not be used, disclosed, or copied without written permission of the Client.

This survey report is not intended to be a stand-alone design document for the solicitation of bids. This survey report should only be used for developing the scope of work, bid/contract document, and as a reference document.

6.0 DISCLAIMER

The services performed by Citadel Environmental Services, Inc. ("Citadel"), d.b.a. Citadel EHS, in connection with this Report were performed in accordance with generally and currently accepted engineering practices and principles; provided, however, Citadel completed such services as directed by the Client and the recommendations described in this Report are therefore limited in purpose and scope. The procedures and methodologies used by Citadel in its performance of services, and the recommendations contained herein, are not intended to meet the requirements under any specific laws or regulatory guidelines unless expressly set forth in the Proposal.

The recommendations and conclusions set forth in this Report are based on information and data available to Citadel during the course of its performance of the services. Citadel relied on the information and data provided by or on behalf of Client, including, if applicable, historical and present operations, conditions and test data, and Citadel assumed all such information and data was correct and complete. Citadel shall not be liable for any damages or losses resulting from inaccuracies of, or omissions from, information or data provided by or on behalf of the Client, any interested third-parties, or any federal, state, county, or local governmental authority, or otherwise available in the public domain.

The information contained in this Report and conclusions resulting therefrom are based solely on information available to Citadel at the time of its performance of services, and from observations and perceived conditions and materials existing on the date of Citadel's limited survey of the site, if applicable. Citadel disclaims any inaccuracy in the Report as a result of any part or parcel of

property to which Citadel was not provided access, or which was concealed, including, but not limited to, wall cavities/chases, ceiling plenums, below floor finishes, crawlspaces, below grade, beneath existing structures, or behind electrical panels.
The findings and recommendations presented in this Report are based upon observations of present conditions and may not necessarily indicate future conditions. No conclusions should be construed or inferred other than those expressly stated in this Report. EXCEPT FOR ANY WARRANTIES EXPRESSLY SET FORTH IN THE PROPOSAL OR OTHER WRITTEN AGREEMENT BETWEEN CITADEL AND CLIENT, CITADEL MAKES NO WARRANTIES HEREUNDER WITH RESPECT TO ANY INFORMATION CONTAINED IN THIS REPORT, EXPRESS OR IMPLIED, AND CITADEL HEREBY DISCLAIMS ALL OTHER WARRANTIES.

All testing and remediation methods have reliability limitations and no method nor number of sampling locations can guarantee that a hazard will be discovered if contamination or other evidence of the hazard is not encountered within the performance of the services as authorized. Reliability of testing or remediation varies according to the sampling frequency and other service variables that were selected by Client. Citadel shall not be at fault or liable for any such limitations.

The information and opinions rendered in this report are exclusively for use and reliance by the Client. The information contained herein may not be used, disclosed, or copied without written permission of the Client and may not be relied upon without the written permission of Citadel.

7.0 SIGNATURES

Services performed by:

[Refer to project documentation for signature]

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Attachments

CITADEL EHS
assess • resolve • strengthen

Appendix A
Project Team Certifications

CITADEL EHS

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CERTIFICATIONS

INSPECTOR	Edward J Wood
CERTIFICATION	Certified Asbestos Consultant
CERTIFIED BY	State of California Division of Occupational Safety and Health
CERTIFICATION NUMBER	97-2208
EXPIRATION DATE	06/27/21

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Edward J Wood
Name

Certification No. 97-2208

Expires on 06/27/21

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

INSPECTOR	Edward J Wood
CERTIFICATION	Lead-Related Inspector Assessor
CERTIFIED BY	State of California Department of Public Health
CERTIFICATION NUMBER	LRC-00000980
EXPIRATION DATE	07/16/21

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
Edward Wood	Lead Inspector/Assessor	LRC-00000980	7/16/2021

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

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CERTIFICATIONS

INSPECTOR	Adrian Tercero
CERTIFICATION	Lead-Related Sampling Technician
CERTIFIED BY	State of California Department of Public Health
CERTIFICATION NUMBER	LRC-00006046
EXPIRATION DATE	3/18/2021

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
 Adrian Tercero	Lead Sampling Technician	LRC-00006046	3/18/2021

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

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CERTIFICATIONS

INSPECTOR	Mark A. Price
CERTIFICATION	Certified Asbestos Consultant
CERTIFIED BY	State of California Division of Occupational Safety and Health
CERTIFICATION NUMBER	07-4200
EXPIRATION DATE	05/17/21

INSPECTOR	Mark A. Price
CERTIFICATION	Lead-Related Inspector/Assessor
CERTIFIED BY	State of California Department of Public Health
CERTIFICATION NUMBER	LRC-00000625
EXPIRATION DATE	06/01/21

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
 Mark Price	Lead Inspector/Assessor	LRC-00000625	6/1/2021

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CERTIFICATIONS

INSPECTOR	Jack Simmons Samuels
CERTIFICATION	Certified Asbestos Consultant
CERTIFIED BY	State of California Division of Occupational Safety and Health
CERTIFICATION NUMBER	92-0475
EXPIRATION DATE	01/07/21

INSPECTOR	Jack Simmons Samuels
CERTIFICATION	Lead-Related Inspector/Assessor Supervisor Project Monitor
CERTIFIED BY	State of California Department of Public Health
CERTIFICATION NUMBER	5380
EXPIRATION DATE	03/11/21

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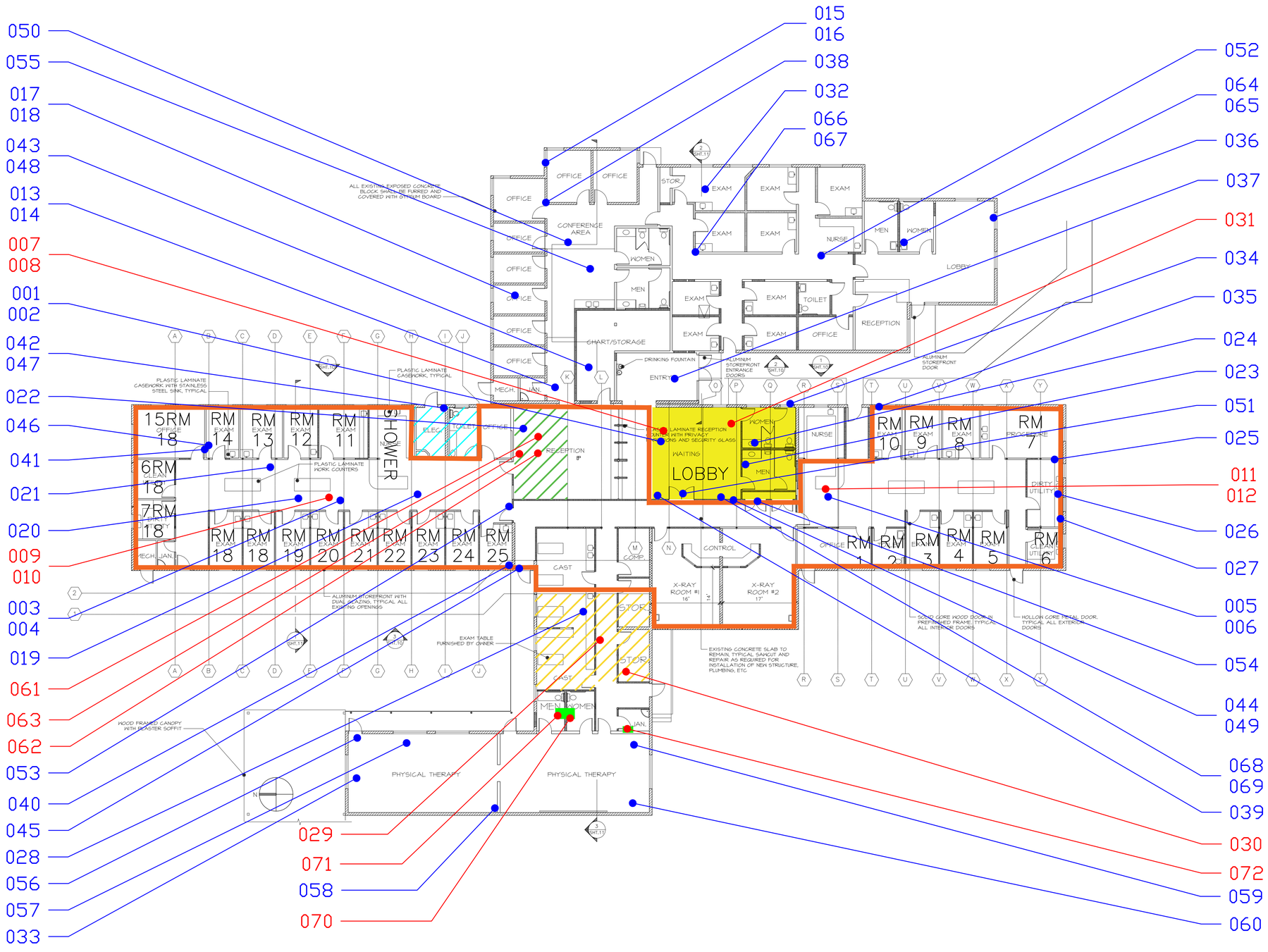
Appendix B
Drawings with Bulk Sample Locations



ACM LEGEND:

	MATERIAL TYPE	HA NO.	LOCATION(S)	APPROX. QUANTITY[1]	SAMPLE #	ASBESTOS CONTENT/ CONDITION
	12'x12' Vinyl Floor Tile, Tan (bottom layer)	12VFT2	1st Floor, Lobby, North and South Corridors and rooms	~6,400 SF	007, 009, 011	3%-5% Chrysotile /Good
	Floor Tile Mastic, Black A/W 12VFT2	FTM2	1st Floor, Lobby, North and South Corridors and rooms	~6,400 SF	008, 010 012	8% Chrysotile /Good
	Vinyl Sheet Flooring, Tan	VSF4	1st Floor, West Storage /Break Room	~500 SF	029, 030	3% Chrysotile /Good
	Carpet Mastic, Black/Yellow	FCM1	1st Floor, Lobby Area	~800 SF	031	5% Chrysotile /Good
	Thermal System Insulation, White, Elbows and Fiberglass Runs	PFI1	1st Floor, Lobby @ Storage above Ceiling	~10 SF	061, 062, 063	4%-12% Chrysotile 2% Amosite /Good
	Under Sink Mastic, Black	USM1	1st Floor, West Storage/Break Room	~10 SF 3 Each	070, 071, 072	3%-10% Chrysotile /Good

SAMPLE LEGEND:

- ● - 001-NONE DETECTED
- ● - 001-POSITIVE ACM (>1%)

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Glendale, CA 91201
818-246-2707 FAX: 818-246-3145
www. citadelenvironmental.com

Project Title: VENTURA COUNTY PUBLIC WORKS COLSTON CENTER DEMOLITION PROJECT

Drawing Title: MAIN FLOOR ACM SURVEY

Location: Frank A Colston Youth Center, 375 Hillmont Ave, Ventura, CA 93003

Drawn By: Speedy Digital Graphics

Surveyed By: A.P.

Reviewed: A.P.

Project No: 2007.1010.0

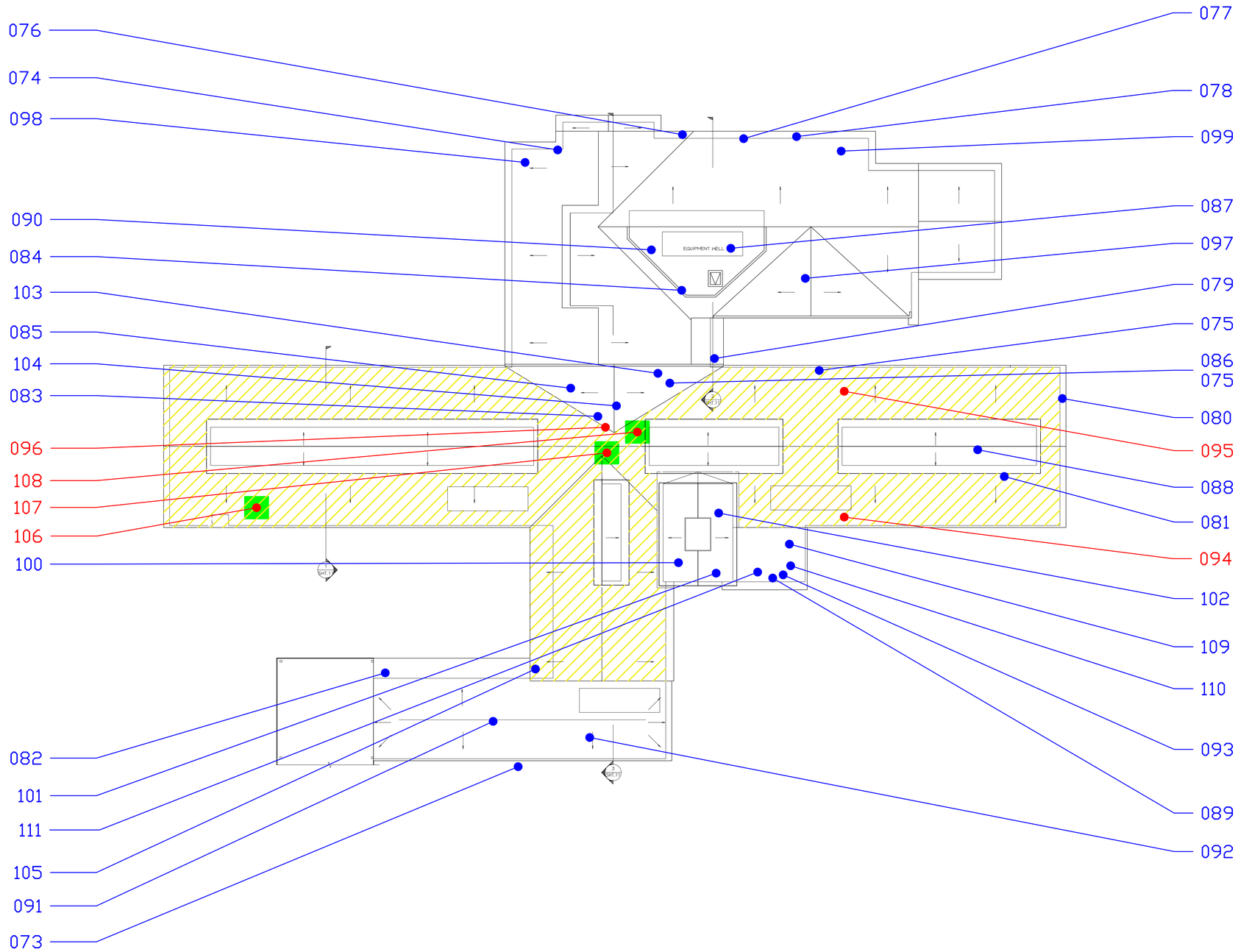
Date: 11/10/2020

Scale: NTS

Approved By:

Rev.	Date	Description	By	Chkd.	Appd.

Drawing No: 1.0



ACM LEGEND:

	MATERIAL TYPE	HA NO.	LOCATION(S)	APPROX. QUANTITY[1]	SAMPLE #	ASBESTOS CONTENT/ CONDITION
	Roof Tile, Gray, Soft	RS1	Roof	~3,456 SF	094, 095, 096	2% Chrysotile /Good
	Roof Patch, Silver	RP1	Roof, West Center	~20 SF	106, 107, 108	2%-4% Chrysotile /Good

SAMPLE LEGEND:

- 001-NONE DETECTED
- 001-POSITIVE ACM (>1%) OR ACCM (<1% but >0.1%)

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www. citadelenvironmental.com

Project Title: VENTURA COUNTY PUBLIC WORKS COLSTON CENTER DEMOLITION PROJECT

Drawing Title: ROOF ACM SURVEY

Location: Frank A Colston Youth Center, 375 Hillmont Ave, Ventura, CA 93003

Drawn By: Speedy Digital Graphics

Surveyed By: A.P.

Reviewed: A.P.

Project No: 2007.1010.0

Date: 11/10/2020

Scale: NTS N.T.S.

Approved By:

Rev.	Date	Description	By	Chkd.	Appd.

Drawing No: 2.0

LEAD LEGEND:

READING NO.	COMPONENT	SUBSTRATE	COLOR(S)	LOCATION(S)
17, 48, 68	Sink(s)	Porcelain	White	1st Floor, Restroom and Closet
66	Wall	Ceramic	Beige	1st Floor, Restroom

SAMPLE LEGEND:

● PAINT CHIP - LEAD BASED MATERIALS

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Project Title: VENTURA COUNTY PUBLIC WORKS COLSTON CENTER DEMOLITION PROJECT

Drawing Title: MAIN FLOOR LEAD SURVEY

Location: Frank A Colston Youth Center, 375 Hillmont Ave, Ventura, CA 93003

Drawn By: Speedy Digital Graphics

Surveyed By: A.P.

Reviewed: A.P.

Project No: 2007.1010.0

Date: 11/10/2020

Scale: NTS N.T.S.

Approved By:

Rev.	Date	Description	By	Chkd.	Appd.

Drawing No: 3.0

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Appendix C
Table 1.0 - Bulk Sample Results

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TABLE 1.0
BULK SAMPLE RESULTS
CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
12VFT1-001	White w/Gray - 12"x12" Floor Tile	1st Top Layer - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
FTM1-002	Black - Floor Tile Mastic	1st Top Layer - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
12VFT1-003	White w/Gray - 12"x12" Floor Tile	1st Top Layer - North Corridor @ Rm 20	10/28/2020	PLM	Non-ACM	ND	
FTM1-004	Black - Floor Tile Mastic	1st Top Layer - North Corridor @ Rm 20	10/28/2020	PLM	Non-ACM	ND	
12VFT1-005	White w/Gray - 12"x12" Floor Tile	1st Top Layer - South @ Corridor Shower	10/28/2020	PLM	Non-ACM	ND	
FTM1-006	Black - Floor Tile Mastic	2nd Layer - South Shower @ Corridor	10/28/2020	PLM	Non-ACM	ND	
12VFT2-007	**Tan - 12"x12" Floor Tile**	**2nd Layer - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**5.0**	**Chrysotile**
FTM2-008-Mastic 1	Black - Floor Tile Mastic	2nd Layer - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
FTM2-008-Mastic 2	**Black - Floor Tile Mastic**	**2nd Layer - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**8.0**	**Chrysotile**
12VFT2-009	**Tan - 12"x12" Floor Tile**	**2nd Layer - North Corridor @ Rm 20**	**10/28/2020**	**PLM**	**ACM**	**5.0**	**Chrysotile**
FTM2-010-Mastic 1	Black - Floor Tile Mastic	2nd Layer - North Corridor @ Rm 20	10/28/2020	PLM	Non-ACM	ND	
FTM2-010-Mastic 2	**Black - Floor Tile Mastic**	**2nd Layer - North Corridor @ Rm 20**	**10/28/2020**	**PLM**	**ACM**	**8.0**	**Chrysotile**
12VFT2-011-Leveling Compound/Mastic 1 (Top)	Tan - 12"x12" Floor Tile	2nd Layer - South Corridor @ Showers	10/28/2020	PLM	Non-ACM	ND	
12VFT2-011-VFT	**Tan - 12"x12" Floor Tile**	**2nd Layer - South Corridor @ Showers**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
FTM2-012	**Black - Floor Tile Mastic**	**2nd Layer - South Corridor @ Showers**	**10/28/2020**	**PLM**	**ACM**	**8.0**	**Chrysotile**
12VFT3-013	Lt Pink - 12"x12" Floor Tile	Medical Records - East Corridor @ Entrance	10/28/2020	PLM	Non-ACM	ND	
FTM3-014	Black - Floor Tile Mastic	Medical Records - East Corridor @ Entrance	10/28/2020	PLM	Non-ACM	ND	
12VFT3-015	Lt Pink - 12"x12" Floor Tile	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
FTM3-016	Black - Floor Tile MasticBlack - Floor Tile Mastic	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
12VFT3-017	Lt Pink - 12"x12" Floor Tile	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
FTM3-018	Black - Floor Tile Mastic	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
VSF1-019	Beige - Sheet Flooring	1st - North Corridor	10/28/2020	PLM	Non-ACM	ND	
VSF1-020	Beige - Sheet Flooring	1st - North Corridor	10/28/2020	PLM	Non-ACM	ND	
VSF1-021	Beige - Sheet Flooring	1st - North Corridor	10/28/2020	PLM	Non-ACM	ND	
VSF2-022-Sheet Flooring	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-022-Mastic	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-023-Sheet Flooring	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-023-Mastic	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-024-Sheet Flooring	Gray Mosaic - Sheet Flooring	Lobby - South Corridor Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-024-Mastic	Gray Mosaic - Sheet Flooring	Lobby - South Corridor Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF3-025-Sheet Flooring	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-025-Mastic/Paint	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-026-Sheet Flooring	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-026-Mastic/Paint	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-027-Sheet Flooring	Gary - Sheet Flooring	Lobby - West Storage/Break Rm	10/28/2020	PLM	Non-ACM	ND	
VSF3-027-Mastic	Gary - Sheet Flooring	Lobby - West Storage/Break Rm	10/28/2020	PLM	Non-ACM	ND	
VSF3-027-Ceiling Tile	Gary - Sheet Flooring	Lobby - West Storage/Break Rm	10/28/2020	PLM	Non-ACM	ND	
VSF4-028-Sheet Flooring	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-028-Mastic/Leveling Compound	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	

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TABLE 1.0
BULK SAMPLE RESULTS
CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
VSF4-029-Sheet Flooring 1	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-029-Mastic 1	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-029-Sheet Flooring 2	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-029-Mastic 2	**Tan - Sheet Flooring**	**1st - West Storage Break Room**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
VSF4-030-Sheet Flooring	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-030-Mastic	**Tan - Sheet Flooring**	**1st - West Storage Break Room**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
VSF4-030-Cementitious Material	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
FCM1-031	**Yellow Carpet - Mastic**	**1st - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**5.0**	**Chrysotile**
FCM1-032	Yellow Carpet - Mastic	1st - Eastside Offices	10/28/2020	PLM	Non-ACM	ND	
FCM1-033	Yellow Carpet - Mastic	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	
FBM1-034	Cream - Baseboard Mastic	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
FBM1-035	Cream - Baseboard Mastic	1st - South Corridor Room 10	10/28/2020	PLM	Non-ACM	ND	
FBM1-036	Cream - Baseboard Mastic	1st - South Offices	10/28/2020	PLM	Non-ACM	ND	
FLC1-037	White - Floor Leveling Compound (Float)	1st - West Door Entrance	10/28/2020	PLM	Non-ACM	ND	
FLC1-038	White - Floor Leveling Compound (Float)	1st - East Offices	10/28/2020	PLM	Non-ACM	ND	
FLC1-039	White - Floor Leveling Compound (Float)	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
WPF1-040-Finish Coat	Gray - Smooth Wall Plaster	1st - North @ Rm 25	10/28/2020	PLM	Non-ACM	ND	
WPF1-040-Base Coat	Gray - Smooth Wall Plaster	1st - North @ Rm 25	10/28/2020	PLM	Non-ACM	ND	
WPF1-041-Finish Coat	Gray - Smooth Wall Plaster	1st - @ Rm 14	10/28/2020	PLM	Non-ACM	ND	
WPF1-041-Base Coat	Gray - Smooth Wall Plaster	1st - @ Rm 14	10/28/2020	PLM	Non-ACM	ND	
WPF1-042-Finish Coat	Gray - Smooth Wall Plaster	1st - @ Shower Rm	10/28/2020	PLM	Non-ACM	ND	
WPF1-042-Base Coat	Gray - Smooth Wall Plaster	1st - @ Shower Rm	10/28/2020	PLM	Non-ACM	ND	
WPF1-043-Comp FC/BC	Gray - Ceiling Plaster	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
WPF1-044-Finish Coat	Gray - Wall Plaster	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
WPF1-044-Base Coat	Gray - Wall Plaster	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
MISC1-045	White - Button Board	1st - Rm 25	10/28/2020	PLM	Non-ACM	ND	
MISC1-046	White - Button Board	1st - Rm 14	10/28/2020	PLM	Non-ACM	ND	
MISC1-047	White - Button Board	1st - North Corridor Shower	10/28/2020	PLM	Non-ACM	ND	
MISC1-048	White - Button Board	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
MISC1-049	White - Button Board	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
4CP1-050	White 2'x4' Ceiling Panels	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
4CP1-051	White 2'x4' Ceiling Panels	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
4CP1-052	White 2'x4' Ceiling Panels	1st - East Offices Corridor	10/28/2020	PLM	Non-ACM	ND	
MISC2-053	White 4'x4' Straw Ceiling Panels	1st - N. Corridor @ Rm 25	10/28/2020	PLM	Non-ACM	ND	
MISC2-054	White 4'x4' Straw Ceiling Panels	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
MISC2-055	White 4'x4' Straw Ceiling Panels	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
SAC1-056	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	
SAC1-057	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	
SAC1-058	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	

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CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
SAC1-059	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom C	10/28/2020	PLM	Non-ACM	ND	
SAC1-060	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom C	10/28/2020	PLM	Non-ACM	ND	
PFI1-061	**White - Thermal System Insulation TSI Elbows Fiberglass Ring**	**1st - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**12.0**	**Chrysotile**
PFI1-062	**White - Thermal System Insulation TSI Elbows Fiberglass Ring**	**1st - Above Ceiling Staf/Storage**	**10/28/2020**	**PLM**	**ACM**	**12.0**	**Chrysotile**
PFI1-063	**White - Thermal System Insulation TSI Elbows Fiberglass Ring**	**1st - Above Ceiling Staf/Storage**	**10/28/2020**	**PLM**	**ACM**	**6.0**	**Blend**
WSR1-064	White - Drywall	1st - East Offices Storage Rm	10/28/2020	PLM	Non-ACM	ND	
WJC1-065	White - Joint Compound	1st - East Offices Storage Rm	10/28/2020	PLM	Non-ACM	ND	
WSR1-066	White - Drywall	1st - East Offices	10/28/2020	PLM	Non-ACM	ND	
WJC1-067	White - Joint Compound	1st - East Offices	10/28/2020	PLM	Non-ACM	ND	
WSR1-068	White - Drywall	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
WJC1-069	White - Joint Compound	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
USM1-070	**Black - Sink Under Mastic**	**1st - West Storage Break Rm**	**10/28/2020**	**PLM**	**ACM**	**10.0**	**Chrysotile**
USM1-071	**Black - Sink Under Mastic**	**1st - West Storage Break Rm**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
USM1-072	**Black - Sink Under Mastic**	**1st - West Storage Break Rm**	**10/28/2020**	**PLM**	**ACM**	**10.0**	**Chrysotile**
MISC3-073	Gray - Cynder Block Grout	Exterior - Westside	10/28/2020	PLM	Non-ACM	ND	
MISC3-074	Gray - Cynder Block Grout	Exterior - Eastside	10/28/2020	PLM	Non-ACM	ND	
MISC3-075	Gray - Cynder Block Grout	Exterior - Southside	10/28/2020	PLM	Non-ACM	ND	
MISC4-076	White - Glass Window Grout	Exterior - Eastside (S)	10/28/2020	PLM	Non-ACM	ND	
MISC4-077	White - Glass Window Grout	Exterior - Eastside (N)	10/28/2020	PLM	Non-ACM	ND	
MISC4-078	White - Glass Window Grout	Exterior - Eastside Center	10/28/2020	PLM	Non-ACM	ND	
ES1-079	Gray - Exterior Stucco	Exterior - Eastside (S)	10/28/2020	PLM	Non-ACM	ND	
ES1-080	Gray - Exterior Stucco	Exterior - S. Center	10/28/2020	PLM	Non-ACM	ND	
ES1-081	Gray - Exterior Stucco	Exterior - S. Center	10/28/2020	PLM	Non-ACM	ND	
RPM1-082	Gray/Black - Roof Penetration Mastic	Roof - Westside	10/28/2020	PLM	Non-ACM	ND	
RPM1-083	Gray/Black - Roof Penetration Mastic	Roof - Center	10/28/2020	PLM	Non-ACM	ND	
RPM1-084	Gray/Black - Roof Penetration Mastic	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RFM1-085-Cap Sheet	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center S	10/28/2020	PLM	Non-ACM	ND	
RFM1-085-Tar	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center S	10/28/2020	PLM	Non-ACM	ND	
RFM1-085-Felts	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center S	10/28/2020	PLM	Non-ACM	ND	
RFM1-086-Cap Sheet	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center N	10/28/2020	PLM	Non-ACM	ND	
RFM1-086-Tar	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center N	10/28/2020	PLM	Non-ACM	ND	
RFM1-086-Felts	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center N	10/28/2020	PLM	Non-ACM	ND	
RFM1-087-Cap Sheet	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RFM1-087-Felts	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RFM1-087-Tar	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Roofing	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Felts	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Tar	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Wood Material Like	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	

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TABLE 1.0
BULK SAMPLE RESULTS
CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
RFM2-089-Roofing	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-089-Felts	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-089-Tar	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-089-Insulation	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-090-Felts	Black - Rock Roof Felt	Roof - East Roof Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-090-Tar	Black - Rock Roof Felt	Roof - East Roof Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-090-Insulation	Black - Rock Roof Felt	Roof - East Roof Well	10/28/2020	PLM	Non-ACM	ND	
HVT1-091	White - HVAC Duct Seam Tape	Roof - West Roof	10/28/2020	PLM	Non-ACM	ND	
HVT1-092	White - HVAC Duct Seam Tape	Roof - West Roof	10/28/2020	PLM	Non-ACM	ND	
HVT1-093	White - HVAC Duct Seam Tape	Roof - South Well	10/28/2020	PLM	Non-ACM	ND	
RS1-094	**Gray - Soft Roof Tile**	**Roof - Southside Roof**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
RS1-095	**Gray - Soft Roof Tile**	**Roof - South Eastside**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
RS1-096	**Gray - Soft Roof Tile**	**Roof - Northside**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
RS2-097	Red - Hard Clay Roof Shingles	Roof - Eastside Roof	10/28/2020	PLM	Non-ACM	ND	
RS2-098	Red - Hard Clay Roof Shingles	Roof - Eastside Roof	10/28/2020	PLM	Non-ACM	ND	
RS2-099	Red - Hard Clay Roof Shingles	Roof - Eastside Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-100-Capsheet	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-100-Felt	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-101	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-102-Cap Sheet	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-102-Felts	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RF1-103	Black - Flashing Mastic	Roof - Center	10/28/2020	PLM	Non-ACM	ND	
RF1-104	Black - Flashing Mastic	Roof - Center	10/28/2020	PLM	Non-ACM	ND	
RF1-105	Black - Flashing Mastic	Roof - West Roof	10/28/2020	PLM	Non-ACM	ND	
RP1-106	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**4.0**	**Chrysotile**
RP1-107	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**4.0**	**Chrysotile**
RP1-108-Silver Paint	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**4.0**	**Chrysotile**
RP1-108-Soft Roof Tile-like	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
MISC5-109	Black - Pitch Pocket Mastic	Roof - Center Well	10/28/2020	PLM	Non-ACM	ND	
MISC5-110	Black - Pitch Pocket Mastic	Roof - Center Well	10/28/2020	PLM	Non-ACM	ND	
MISC5-111	Black - Pitch Pocket Mastic	Roof - Center Well	10/28/2020	PLM	Non-ACM	ND	

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Appendix D
Table 2.0 - Summary by Material

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TABLE 2.0
SUMMARY BY MATERIAL
CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
12VFT1-001	White w/Gray - 12"x12" Floor Tile	1st Top Layer - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
12VFT1-003	White w/Gray - 12"x12" Floor Tile	1st Top Layer - North Corridor @ Rm 20	10/28/2020	PLM	Non-ACM	ND	
12VFT1-005	White w/Gray - 12"x12" Floor Tile	1st Top Layer - South @ Corridor Shower	10/28/2020	PLM	Non-ACM	ND	
12VFT2-007	**Tan - 12"x12" Floor Tile**	**2nd Layer - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**5.0**	**Chrysotile**
12VFT2-009	**Tan - 12"x12" Floor Tile**	**2nd Layer - North Corridor @ Rm 20**	**10/28/2020**	**PLM**	**ACM**	**5.0**	**Chrysotile**
12VFT2-011-Leveling Compound/Mastic 1 (Top)	Tan - 12"x12" Floor Tile	2nd Layer - South Corridor @ Showers	10/28/2020	PLM	Non-ACM	ND	
12VFT2-011-VFT	**Tan - 12"x12" Floor Tile**	**2nd Layer - South Corridor @ Showers**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
12VFT3-013	Lt Pink - 12"x12" Floor Tile	Medical Records - East Corridor @ Entrance	10/28/2020	PLM	Non-ACM	ND	
12VFT3-015	Lt Pink - 12"x12" Floor Tile	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
12VFT3-017	Lt Pink - 12"x12" Floor Tile	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
4CP1-050	White 2'x4' Ceiling Panels	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
4CP1-051	White 2'x4' Ceiling Panels	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
4CP1-052	White 2'x4' Ceiling Panels	1st - East Offices Corridor	10/28/2020	PLM	Non-ACM	ND	
ES1-079	Gray - Exterior Stucco	Exterior - Eastside (S)	10/28/2020	PLM	Non-ACM	ND	
ES1-080	Gray - Exterior Stucco	Exterior - S. Center	10/28/2020	PLM	Non-ACM	ND	
ES1-081	Gray - Exterior Stucco	Exterior - S. Center	10/28/2020	PLM	Non-ACM	ND	
FBM1-034	Cream - Baseboard Mastic	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
FBM1-035	Cream - Baseboard Mastic	1st - South Corridor Room 10	10/28/2020	PLM	Non-ACM	ND	
FBM1-036	Cream - Baseboard Mastic	1st - South Offices	10/28/2020	PLM	Non-ACM	ND	
FCM1-031	**Yellow Carpet - Mastic**	**1st - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**5.0**	**Chrysotile**
FCM1-032	Yellow Carpet - Mastic	1st - Eastside Offices	10/28/2020	PLM	Non-ACM	ND	
FCM1-033	Yellow Carpet - Mastic	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	
FLC1-037	White - Floor Leveling Compound (Float)	1st - West Door Entrance	10/28/2020	PLM	Non-ACM	ND	
FLC1-038	White - Floor Leveling Compound (Float)	1st - East Offices	10/28/2020	PLM	Non-ACM	ND	
FLC1-039	White - Floor Leveling Compound (Float)	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
FTM1-002	Black - Floor Tile Mastic	1st Top Layer - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
FTM1-004	Black - Floor Tile Mastic	1st Top Layer - North Corridor @ Rm 20	10/28/2020	PLM	Non-ACM	ND	
FTM1-006	Black - Floor Tile Mastic	2nd Layer - South Shower @ Corridor	10/28/2020	PLM	Non-ACM	ND	
FTM2-008-Mastic 1	Black - Floor Tile Mastic	2nd Layer - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
FTM2-008-Mastic 2	**Black - Floor Tile Mastic**	**2nd Layer - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**8.0**	**Chrysotile**
FTM2-010-Mastic 1	Black - Floor Tile Mastic	2nd Layer - North Corridor @ Rm 20	10/28/2020	PLM	Non-ACM	ND	
FTM2-010-Mastic 2	**Black - Floor Tile Mastic**	**2nd Layer - North Corridor @ Rm 20**	**10/28/2020**	**PLM**	**ACM**	**8.0**	**Chrysotile**
FTM2-012	**Black - Floor Tile Mastic**	**2nd Layer - South Corridor @ Showers**	**10/28/2020**	**PLM**	**ACM**	**8.0**	**Chrysotile**
FTM3-014	Black - Floor Tile Mastic	Medical Records - East Corridor @ Entrance	10/28/2020	PLM	Non-ACM	ND	
FTM3-016	Black - Floor Tile MasticBlack - Floor Tile Mastic	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
FTM3-018	Black - Floor Tile Mastic	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
HVT1-091	White - HVAC Duct Seam Tape	Roof - West Roof	10/28/2020	PLM	Non-ACM	ND	
HVT1-092	White - HVAC Duct Seam Tape	Roof - West Roof	10/28/2020	PLM	Non-ACM	ND	
HVT1-093	White - HVAC Duct Seam Tape	Roof - South Well	10/28/2020	PLM	Non-ACM	ND	
MISC1-045	White - Button Board	1st - Rm 25	10/28/2020	PLM	Non-ACM	ND	
MISC1-046	White - Button Board	1st - Rm 14	10/28/2020	PLM	Non-ACM	ND	
MISC1-047	White - Button Board	1st - North Corridor Shower	10/28/2020	PLM	Non-ACM	ND	
MISC1-048	White - Button Board	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
MISC1-049	White - Button Board	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
MISC2-053	White 4'x4' Straw Ceiling Panels	1st - N. Corridor @ Rm 25	10/28/2020	PLM	Non-ACM	ND	

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TABLE 2.0
SUMMARY BY MATERIAL
CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
MISC2-054	White 4'x4' Straw Ceiling Panels	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
MISC2-055	White 4'x4' Straw Ceiling Panels	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
MISC3-073	Gray - Cynder Block Grout	Exterior - Westside	10/28/2020	PLM	Non-ACM	ND	
MISC3-074	Gray - Cynder Block Grout	Exterior - Eastside	10/28/2020	PLM	Non-ACM	ND	
MISC3-075	Gray - Cynder Block Grout	Exterior - Southside	10/28/2020	PLM	Non-ACM	ND	
MISC4-076	White - Glass Window Grout	Exterior - Eastside (S)	10/28/2020	PLM	Non-ACM	ND	
MISC4-077	White - Glass Window Grout	Exterior - Eastside (N)	10/28/2020	PLM	Non-ACM	ND	
MISC4-078	White - Glass Window Grout	Exterior - Eastside Center	10/28/2020	PLM	Non-ACM	ND	
MISC5-109	Black - Pitch Pocket Mastic	Roof - Center Well	10/28/2020	PLM	Non-ACM	ND	
MISC5-110	Black - Pitch Pocket Mastic	Roof - Center Well	10/28/2020	PLM	Non-ACM	ND	
MISC5-111	Black - Pitch Pocket Mastic	Roof - Center Well	10/28/2020	PLM	Non-ACM	ND	
PFI1-061	**White - Thermal System Insulation TSI Elbows Fiberglass Ring**	**1st - Lobby Area**	**10/28/2020**	**PLM**	**ACM**	**12.0**	**Chrysotile**
PFI1-062	**White - Thermal System Insulation TSI Elbows Fiberglass Ring**	**1st - Above Ceiling Staf/Storage**	**10/28/2020**	**PLM**	**ACM**	**12.0**	**Chrysotile**
PFI1-063	**White - Thermal System Insulation TSI Elbows Fiberglass Ring**	**1st - Above Ceiling Staf/Storage**	**10/28/2020**	**PLM**	**ACM**	**6.0**	**Blend**
RF1-103	Black - Flashing Mastic	Roof - Center	10/28/2020	PLM	Non-ACM	ND	
RF1-104	Black - Flashing Mastic	Roof - Center	10/28/2020	PLM	Non-ACM	ND	
RF1-105	Black - Flashing Mastic	Roof - West Roof	10/28/2020	PLM	Non-ACM	ND	
RFM1-085-Cap Sheet	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center S	10/28/2020	PLM	Non-ACM	ND	
RFM1-085-Felts	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center S	10/28/2020	PLM	Non-ACM	ND	
RFM1-085-Tar	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center S	10/28/2020	PLM	Non-ACM	ND	
RFM1-086-Cap Sheet	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center N	10/28/2020	PLM	Non-ACM	ND	
RFM1-086-Felts	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center N	10/28/2020	PLM	Non-ACM	ND	
RFM1-086-Tar	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Center N	10/28/2020	PLM	Non-ACM	ND	
RFM1-087-Cap Sheet	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RFM1-087-Felts	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RFM1-087-Tar	Gray - Roof Cap Sheet Felt, Tar Core	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Felts	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Roofing	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Tar	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	
RFM2-088-Wood Material Like	Black - Rock Roof Felt	Roof - South	10/28/2020	PLM	Non-ACM	ND	
RFM2-089-Felts	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-089-Insulation	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-089-Roofing	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-089-Tar	Black - Rock Roof Felt	Roof - West Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-090-Felts	Black - Rock Roof Felt	Roof - East Roof Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-090-Insulation	Black - Rock Roof Felt	Roof - East Roof Well	10/28/2020	PLM	Non-ACM	ND	
RFM2-090-Tar	Black - Rock Roof Felt	Roof - East Roof Well	10/28/2020	PLM	Non-ACM	ND	
RFM3-100-Capsheet	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-100-Felt	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-101	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-102-Cap Sheet	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RFM3-102-Felts	Gray - Smooth Cap Sheet	Roof - Center Roof	10/28/2020	PLM	Non-ACM	ND	
RP1-106	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**4.0**	**Chrysotile**
RP1-107	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**4.0**	**Chrysotile**
RP1-108-Silver Paint	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**4.0**	**Chrysotile**

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TABLE 2.0
SUMMARY BY MATERIAL
CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
RP1-108-Soft Roof Tile-like	**Silver - Roof Patch**	**Roof - Center**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
RPM1-082	Gray/Black - Roof Penetration Mastic	Roof - Westside	10/28/2020	PLM	Non-ACM	ND	
RPM1-083	Gray/Black - Roof Penetration Mastic	Roof - Center	10/28/2020	PLM	Non-ACM	ND	
RPM1-084	Gray/Black - Roof Penetration Mastic	Roof - East Well	10/28/2020	PLM	Non-ACM	ND	
RS1-094	**Gray - Soft Roof Tile**	**Roof - Southside Roof**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
RS1-095	**Gray - Soft Roof Tile**	**Roof - South Eastside**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
RS1-096	**Gray - Soft Roof Tile**	**Roof - Northside**	**10/28/2020**	**PLM**	**ACM**	**2.0**	**Chrysotile**
RS2-097	Red - Hard Clay Roof Shingles	Roof - Eastside Roof	10/28/2020	PLM	Non-ACM	ND	
RS2-098	Red - Hard Clay Roof Shingles	Roof - Eastside Roof	10/28/2020	PLM	Non-ACM	ND	
RS2-099	Red - Hard Clay Roof Shingles	Roof - Eastside Roof	10/28/2020	PLM	Non-ACM	ND	
SAC1-056	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	
SAC1-057	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	
SAC1-058	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom D	10/28/2020	PLM	Non-ACM	ND	
SAC1-059	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom C	10/28/2020	PLM	Non-ACM	ND	
SAC1-060	White - Spray-Applied Acoustic Ceiling Material	1st - Classroom C	10/28/2020	PLM	Non-ACM	ND	
USM1-070	**Black - Sink Under Mastic**	**1st - West Storage Break Rm**	**10/28/2020**	**PLM**	**ACM**	**10.0**	**Chrysotile**
USM1-071	**Black - Sink Under Mastic**	**1st - West Storage Break Rm**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
USM1-072	**Black - Sink Under Mastic**	**1st - West Storage Break Rm**	**10/28/2020**	**PLM**	**ACM**	**10.0**	**Chrysotile**
VSF1-019	Beige - Sheet Flooring	1st - North Corridor	10/28/2020	PLM	Non-ACM	ND	
VSF1-020	Beige - Sheet Flooring	1st - North Corridor	10/28/2020	PLM	Non-ACM	ND	
VSF1-021	Beige - Sheet Flooring	1st - North Corridor	10/28/2020	PLM	Non-ACM	ND	
VSF2-022-Mastic	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-022-Sheet Flooring	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-023-Mastic	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-023-Sheet Flooring	Gray Mosaic - Sheet Flooring	Lobby - Staff Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-024-Mastic	Gray Mosaic - Sheet Flooring	Lobby - South Corridor Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF2-024-Sheet Flooring	Gray Mosaic - Sheet Flooring	Lobby - South Corridor Restroom	10/28/2020	PLM	Non-ACM	ND	
VSF3-025-Mastic/Paint	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-025-Sheet Flooring	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-026-Mastic/Paint	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-026-Sheet Flooring	Gary - Sheet Flooring	Lobby - South Corridor S. Storage Rms	10/28/2020	PLM	Non-ACM	ND	
VSF3-027-Ceiling Tile	Gary - Sheet Flooring	Lobby - West Storage/Break Rm	10/28/2020	PLM	Non-ACM	ND	
VSF3-027-Mastic	Gary - Sheet Flooring	Lobby - West Storage/Break Rm	10/28/2020	PLM	Non-ACM	ND	
VSF3-027-Sheet Flooring	Gary - Sheet Flooring	Lobby - West Storage/Break Rm	10/28/2020	PLM	Non-ACM	ND	
VSF4-028-Mastic/Leveling Compound	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-028-Sheet Flooring	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-029-Mastic 1	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-029-Mastic 2	**Tan - Sheet Flooring**	**1st - West Storage Break Room**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
VSF4-029-Sheet Flooring 1	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-029-Sheet Flooring 2	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-030-Cementitious Material	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
VSF4-030-Mastic	**Tan - Sheet Flooring**	**1st - West Storage Break Room**	**10/28/2020**	**PLM**	**ACM**	**3.0**	**Chrysotile**
VSF4-030-Sheet Flooring	Tan - Sheet Flooring	1st - West Storage Break Room	10/28/2020	PLM	Non-ACM	ND	
WJC1-065	White - Joint Compound	1st - East Offices Storage Rm	10/28/2020	PLM	Non-ACM	ND	
WJC1-067	White - Joint Compound	1st - East Offices	10/28/2020	PLM	Non-ACM	ND	

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TABLE 2.0
SUMMARY BY MATERIAL
CITADEL PROJECT NO. 2007.1010.0
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

HA NUMBER / SAMPLE NUMBER /MATERIAL TYPE	MATERIAL DESCRIPTION	SAMPLE AREA/LOCATION	COLLECTED DATE	TEST	CLASSIFICATION	ASBESTOS CONTENT (%)	ASBESTOS TYPE
WJC1-069	White - Joint Compound	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
WPF1-040-Base Coat	Gray - Smooth Wall Plaster	1st - North @ Rm 25	10/28/2020	PLM	Non-ACM	ND	
WPF1-040-Finish Coat	Gray - Smooth Wall Plaster	1st - North @ Rm 25	10/28/2020	PLM	Non-ACM	ND	
WPF1-041-Base Coat	Gray - Smooth Wall Plaster	1st - @ Rm 14	10/28/2020	PLM	Non-ACM	ND	
WPF1-041-Finish Coat	Gray - Smooth Wall Plaster	1st - @ Rm 14	10/28/2020	PLM	Non-ACM	ND	
WPF1-042-Base Coat	Gray - Smooth Wall Plaster	1st - @ Shower Rm	10/28/2020	PLM	Non-ACM	ND	
WPF1-042-Finish Coat	Gray - Smooth Wall Plaster	1st - @ Shower Rm	10/28/2020	PLM	Non-ACM	ND	
WPF1-043-Comp FC/BC	Gray - Ceiling Plaster	1st - Medical Records	10/28/2020	PLM	Non-ACM	ND	
WPF1-044-Base Coat	Gray - Wall Plaster	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
WPF1-044-Finish Coat	Gray - Wall Plaster	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	
WSR1-064	White - Drywall	1st - East Offices Storage Rm	10/28/2020	PLM	Non-ACM	ND	
WSR1-066	White - Drywall	1st - East Offices	10/28/2020	PLM	Non-ACM	ND	
WSR1-068	White - Drywall	1st - Lobby Area	10/28/2020	PLM	Non-ACM	ND	

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Appendix E
Asbestos Laboratory Results

LA Testing

520 Mission Street South Pasadena, CA 91030

Tel/Fax: (323) 254-9960 / (323) 254-9982

http://www.LATesting.com / pasadenalab@latesting.com

LA Testing Order: 322019986
Customer ID: 32CITA50
Customer PO: 2007.1010.0
Project ID:

Attention: Ed Wood
Citadel Environmental Services, Inc.
1725 Victory Boulevard
Glendale, CA 91201

Phone: (818) 916-4219
Fax:
Received Date: 10/29/2020 8:00 AM
Analysis Date: 11/02/2020 - 11/03/2020
Collected Date: 10/28/2020

Project: 2007.1010.0 | County of Ventura Public Works | Colston Center, 375 Hillmont Ave., Ventura, CA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
12VFT1-001 *322019986-0001*	1st Top Layer - Lobby Area - White w/Gray - 12"x12" Floor Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM1-002 *322019986-0002*	1st Top Layer - Lobby Area - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12VFT1-003 *322019986-0003*	1st Top Layer - North Corridor @ Rm 20 - White w/Gray - 12"x12" Floor Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM1-004 *322019986-0004*	1st Top Layer - North Corridor @ Rm 20 - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12VFT1-005 *322019986-0005*	1st Top Layer - South @ Corridor Shower - White w/Gray - 12"x12" Floor Tile	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM1-006 *322019986-0006*	2nd Layer - South Shower @ Corridor - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12VFT2-007 *322019986-0007*	2nd Layer - Lobby Area - Tan - 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
FTM2-008-Mastic 1 *322019986-0008*	2nd Layer - Lobby Area - Black - Floor Tile Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM2-008-Mastic 2 *322019986-0008A*	2nd Layer - Lobby Area - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
12VFT2-009 *322019986-0009*	2nd Layer - North Corridor @ Rm 20 - Tan - 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
FTM2-010-Mastic 1 *322019986-0010*	2nd Layer - North Corridor @ Rm 20 - Black - Floor Tile Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM2-010-Mastic 2 *322019986-0010A*	2nd Layer - North Corridor @ Rm 20 - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
12VFT2-011-Leveling Compound/Mastic 1 (Top) *322019986-0011* *Unable to separate.*	2nd Layer - South Corridor @ Showers - Tan - 12"x12" Floor Tile	White/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected

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Customer PO: 2007.1010.0
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
12VFT2-011-VFT *322019986-0011A*	2nd Layer - South Corridor @ Showers - Tan - 12"x12" Floor Tile	Gray/Beige Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
FTM2-012 *322019986-0012*	2nd Layer - South Corridor @ Showers - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
12VFT3-013 *322019986-0013*	Medical Records - East Corridor @ Entrance - Lt Pink - 12"x12" Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM3-014 *322019986-0014*	Medical Records - East Corridor @ Entrance - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12VFT3-015 *322019986-0015*	1st - Medical Records - Lt Pink - 12"x12" Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM3-016 *322019986-0016*	1st - Medical Records - Black - Floor Tile MasticBlack - Floor Tile Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12VFT3-017 *322019986-0017*	1st - Medical Records - Lt Pink - 12"x12" Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FTM3-018 *322019986-0018*	1st - Medical Records - Black - Floor Tile Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
VSF1-019 *322019986-0019*	1st - North Corridor - Beige - Sheet Flooring	Beige Fibrous Heterogeneous	8% Cellulose 10% Synthetic	82% Non-fibrous (Other)	None Detected
VSF1-020 *322019986-0020*	1st - North Corridor - Beige - Sheet Flooring	Beige Fibrous Heterogeneous	8% Cellulose 10% Synthetic	82% Non-fibrous (Other)	None Detected
VSF1-021 *322019986-0021*	1st - North Corridor - Beige - Sheet Flooring	Beige Fibrous Heterogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
VSF2-022-Sheet Flooring *322019986-0022*	Lobby - Staff Restroom - Gray Mosaic - Sheet Flooring	Gray/White Fibrous Heterogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
VSF2-022-Mastic *322019986-0022A*	Lobby - Staff Restroom - Gray Mosaic - Sheet Flooring	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
VSF2-023-Sheet Flooring *322019986-0023*	Lobby - Staff Restroom - Gray Mosaic - Sheet Flooring	Gray/White Fibrous Heterogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
VSF2-023-Mastic *322019986-0023A*	Lobby - Staff Restroom - Gray Mosaic - Sheet Flooring	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
VSF2-024-Sheet Flooring *322019986-0024*	Lobby - South Corridor Restroom - Gray Mosaic - Sheet Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
VSF2-024-Mastic *322019986-0024A*	Lobby - South Corridor Restroom - Gray Mosaic - Sheet Flooring	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
VSF3-025-Sheet Flooring *322019986-0025*	Lobby - South Corridor S. Storage Rms - Gary - Sheet Flooring	Gray Fibrous Heterogeneous	5% Cellulose 10% Glass	85% Non-fibrous (Other)	None Detected
VSF3-025-Mastic/Paint *322019986-0025A* *Unable t seperate*	Lobby - South Corridor S. Storage Rms - Gary - Sheet Flooring	Gray/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
VSF3-026-Sheet Flooring *322019986-0026*	Lobby - South Corridor S. Storage Rms - Gary - Sheet Flooring	Gray Fibrous Heterogeneous	5% Cellulose 10% Glass	85% Non-fibrous (Other)	None Detected
VSF3-026-Mastic/Paint *322019986-0026A* *Unable to separate*	Lobby - South Corridor S. Storage Rms - Gary - Sheet Flooring	Gray/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
VSF3-027-Sheet Flooring *322019986-0027*	Lobby - West Storage/Break Rm - Gary - Sheet Flooring	Gray/White Fibrous Heterogeneous	10% Synthetic	90% Non-fibrous (Other)	None Detected
VSF3-027-Mastic *322019986-0027A*	Lobby - West Storage/Break Rm - Gary - Sheet Flooring	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
VSF3-027-Ceiling Tile *322019986-0027B*	Lobby - West Storage/Break Rm - Gary - Sheet Flooring	Gray/White Fibrous Homogeneous	50% Cellulose	30% Perlite 20% Non-fibrous (Other)	None Detected
VSF4-028-Sheet Flooring *322019986-0028*	1st - West Storage Break Room - Tan - Sheet Flooring	Tan Fibrous Heterogeneous	5% Cellulose 10% Glass	85% Non-fibrous (Other)	None Detected
VSF4-028-Mastic/Leveling Compound *322019986-0028A* *Unable to separate*	1st - West Storage Break Room - Tan - Sheet Flooring	Gray/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
VSF4-029-Sheet Flooring 1 *322019986-0029*	1st - West Storage Break Room - Tan - Sheet Flooring	Tan/White Fibrous Heterogeneous	5% Cellulose 10% Glass	85% Non-fibrous (Other)	None Detected
VSF4-029-Mastic 1 *322019986-0029A*	1st - West Storage Break Room - Tan - Sheet Flooring	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
VSF4-029-Sheet Flooring 2 *322019986-0029B*	1st - West Storage Break Room - Tan - Sheet Flooring	White/Beige Fibrous Heterogeneous	5% Cellulose 10% Glass	85% Non-fibrous (Other)	None Detected
VSF4-029-Mastic 2 *322019986-0029C*	1st - West Storage Break Room - Tan - Sheet Flooring	Black/Yellow Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
VSF4-030-Sheet Flooring *322019986-0030*	1st - West Storage Break Room - Tan - Sheet Flooring	Beige Fibrous Heterogeneous	10% Cellulose 10% Synthetic	80% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
VSF4-030-Mastic *322019986-0030A*	1st - West Storage Break Room - Tan - Sheet Flooring	Black/Beige Non-Fibrous Heterogeneous		97% Non-fibrous (Other)	3% Chrysotile
VSF4-030-Cementitious Material *322019986-0030B*	1st - West Storage Break Room - Tan - Sheet Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FCM1-031 *322019986-0031*	1st - Lobby Area - Yellow Carpet - Mastic	Black/Yellow Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
FCM1-032 *322019986-0032*	1st - Eastside Offices - Yellow Carpet - Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FCM1-033 *322019986-0033*	1st - Classroom D - Yellow Carpet - Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FBM1-034 *322019986-0034*	1st - Lobby Area - Cream - Baseboard Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FBM1-035 *322019986-0035*	1st - South Corridor Room 10 - Cream - Baseboard Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FBM1-036 *322019986-0036*	1st - South Offices - Cream - Baseboard Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FLC1-037 *322019986-0037*	1st - West Door Entrance - White - Floor Leveling Compound (Float)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FLC1-038 *322019986-0038*	1st - East Offices - White - Floor Leveling Compound (Float)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FLC1-039 *322019986-0039*	1st - Lobby Area - White - Floor Leveling Compound (Float)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-040-Finish Coat *322019986-0040*	1st - North @ Rm 25 - Gray - Smooth Wall Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-040-Base Coat *322019986-0040A*	1st - North @ Rm 25 - Gray - Smooth Wall Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-041-Finish Coat *322019986-0041*	1st - @ Rm 14 - Gray - Smooth Wall Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-041-Base Coat *322019986-0041A*	1st - @ Rm 14 - Gray - Smooth Wall Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-042-Finish Coat *322019986-0042*	1st - @ Shower Rm - Gray - Smooth Wall Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-042-Base Coat *322019986-0042A*	1st - @ Shower Rm - Gray - Smooth Wall Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-043-Comp FC/BC *322019986-0043* *Unable to separate*	1st - Medical Records - Gray - Ceiling Plaster	Gray/White Non-Fibrous Heterogeneous	2% Glass	98% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
WPF1-044-Finish Coat *322019986-0044*	1st - Lobby Area - Gray - Wall Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WPF1-044-Base Coat *322019986-0044A*	1st - Lobby Area - Gray - Wall Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
MISC1-045 *322019986-0045*	1st - Rm 25 - White - Button Board	Brown/White Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
MISC1-046 *322019986-0046*	1st - Rm 14 - White - Button Board	Brown/White Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
MISC1-047 *322019986-0047*	1st - North Corridor Shower - White - Button Board	Brown/White Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
MISC1-048 *322019986-0048*	1st - Medical Records - White - Button Board	Brown/White Fibrous Homogeneous	20% Cellulose 3% Glass	77% Non-fibrous (Other)	None Detected
MISC1-049 *322019986-0049*	1st - Lobby Area - White - Button Board	Brown/White Fibrous Heterogeneous	20% Cellulose 3% Glass	77% Non-fibrous (Other)	None Detected
4CP1-050 *322019986-0050*	1st - Medical Records - White 2'x4' Ceiling Panels	Gray/White Fibrous Heterogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
4CP1-051 *322019986-0051*	1st - Lobby Area - White 2'x4' Ceiling Panels	Gray/White Fibrous Heterogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
4CP1-052 *322019986-0052*	1st - East Offices Corridor - White 2'x4' Ceiling Panels	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
MISC2-053 *322019986-0053*	1st - N. Corridor @ Rm 25 - White 4'x4' Straw Ceiling Panels	White/Yellow Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
MISC2-054 *322019986-0054*	1st - Lobby Area - White 4'x4' Straw Ceiling Panels	White/Yellow Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
MISC2-055 *322019986-0055*	1st - Medical Records - White 4'x4' Straw Ceiling Panels	White/Beige Fibrous Heterogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
SAC1-056 *322019986-0056*	1st - Classroom D - White - Spray-Applied Acoustic Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
SAC1-057 *322019986-0057*	1st - Classroom D - White - Spray-Applied Acoustic Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
SAC1-058 *322019986-0058*	1st - Classroom D - White - Spray-Applied Acoustic Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
SAC1-059 *322019986-0059*	1st - Classroom C - White - Spray-Applied Acoustic Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
SAC1-060 *322019986-0060*	1st - Classroom C - White - Spray-Applied Acoustic Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PFI1-061 *322019986-0061*	1st - Lobby Area - White - Thermal System Insulation TSI Elbows Fiberglass Ring	White Fibrous Homogeneous	70% Min. Wool	18% Non-fibrous (Other)	12% Chrysotile
PFI1-062 *322019986-0062*	1st - Above Ceiling Staf/Storage - White - Thermal System Insulation TSI Elbows Fiberglass Ring	White Fibrous Homogeneous	70% Min. Wool	18% Non-fibrous (Other)	12% Chrysotile
PFI1-063 *322019986-0063*	1st - Above Ceiling Staf/Storage - vWhite - Thermal System Insulation TSI Elbows Fiberglass Ring	Gray Fibrous Homogeneous	10% Min. Wool	84% Non-fibrous (Other)	2% Amosite 4% Chrysotile
WSR1-064 *322019986-0064*	1st - East Offices Storage Rm - White - Drywall	Brown/White Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
WJC1-065 *322019986-0065*	1st - East Offices Storage Rm - White - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WSR1-066 *322019986-0066*	1st - East Offices - White - Drywall	Brown/White Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
WJC1-067 *322019986-0067*	1st - East Offices - White - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WSR1-068 *322019986-0068*	1st - Lobby Area - White - Drywall	Brown/White Fibrous Heterogeneous	20% Cellulose 2% Glass	78% Non-fibrous (Other)	None Detected
WJC1-069 *322019986-0069*	1st - Lobby Area - White - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
USM1-070 *322019986-0070*	1st - West Storage Break Rm - Black - Sink Under Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
USM1-071 *322019986-0071*	1st - West Storage Break Rm - Black - Sink Under Mastic	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
USM1-072 *322019986-0072*	1st - West Storage Break Rm - Black - Sink Under Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
MISC3-073 *322019986-0073*	Exterior - Westside - Gray - Cynder Block Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
MISC3-074 *322019986-0074*	Exterior - Eastside - Gray - Cynder Block Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
MISC3-075 *322019986-0075*	Exterior - Southside - Gray - Cynder Block Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
MISC4-076 *322019986-0076*	Exterior - Eastside (S) - White - Glass Window Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
MISC4-077 *322019986-0077*	Exterior - Eastside (N) - White - Glass Window Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
MISC4-078 *322019986-0078*	Exterior - Eastside Center - White - Glass Window Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ES1-079 *322019986-0079*	Exterior - Eastside (S) - Gray - Exterior Stucco	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ES1-080 *322019986-0080*	Exterior - S. Center - Gray - Exterior Stucco	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ES1-081 *322019986-0081*	Exterior - S. Center - Gray - Exterior Stucco	Gray/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RPM1-082 *322019986-0082*	Roof - Westside - Gray/Black - Roof Penetration Mastic	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
RPM1-083 *322019986-0083*	Roof - Center - Gray/Black - Roof Penetration Mastic	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
RPM1-084 *322019986-0084*	Roof - East Well - Gray/Black - Roof Penetration Mastic	Gray/Black Non-Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
RFM1-085-Cap Sheet *322019986-0085*	Roof - East Center S - Gray - Roof Cap Sheet Felt, Tar Core	White/Black Fibrous Heterogeneous	12% Glass	88% Non-fibrous (Other)	None Detected
RFM1-085-Tar *322019986-0085A*	Roof - East Center S - Gray - Roof Cap Sheet Felt, Tar Core	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RFM1-085-Felts *322019986-0085B*	Roof - East Center S - Gray - Roof Cap Sheet Felt, Tar Core	Black Fibrous Heterogeneous	25% Glass	75% Non-fibrous (Other)	None Detected
RFM1-086-Cap Sheet *322019986-0086*	Roof - East Center N - Gray - Roof Cap Sheet Felt, Tar Core	White/Black Fibrous Heterogeneous	12% Glass	88% Non-fibrous (Other)	None Detected
RFM1-086-Tar *322019986-0086A*	Roof - East Center N - Gray - Roof Cap Sheet Felt, Tar Core	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RFM1-086-Felts *322019986-0086B*	Roof - East Center N - Gray - Roof Cap Sheet Felt, Tar Core	Black Fibrous Homogeneous	25% Glass	75% Non-fibrous (Other)	None Detected
RFM1-087-Cap Sheet *322019986-0087*	Roof - East Well - Gray - Roof Cap Sheet Felt, Tar Core	Gray/Black Fibrous Heterogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
RFM1-087-Felts *322019986-0087A*	Roof - East Well - Gray - Roof Cap Sheet Felt, Tar Core	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
RFM1-087-Tar *322019986-0087B*	Roof - East Well - Gray - Roof Cap Sheet Felt, Tar Core	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RFM2-088-Roofing *322019986-0088*	Roof - South - Black - Rock Roof Felt	Black Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
RFM2-088-Felts *322019986-0088A*	Roof - South - Black - Rock Roof Felt	Silver Fibrous Heterogeneous	25% Cellulose 5% Glass	70% Non-fibrous (Other)	None Detected

Initial report from: 11/03/2020 08:24:19

LA Testing
520 Mission Street South Pasadena, CA 91030
Tel/Fax: (323) 254-9960 / (323) 254-9982
http://www.LATesting.com / pasadenalab@latesting.com

LA Testing Order: 322019986
Customer ID: 32CITA50
Customer PO: 2007.1010.0
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
RFM2-088-Tar *322019986-0088B*	Roof - South - Black - Rock Roof Felt	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RFM2-088-Wood Material Like *322019986-0088C*	Roof - South - Black - Rock Roof Felt	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
RFM2-089-Roofing *322019986-0089*	Roof - West Well - Black - Rock Roof Felt	Black Non-Fibrous Homogeneous	10% Cellulose 8% Glass	82% Non-fibrous (Other)	None Detected
RFM2-089-Felts *322019986-0089A*	Roof - West Well - Black - Rock Roof Felt	Black Fibrous Heterogeneous	25% Cellulose 5% Glass	70% Non-fibrous (Other)	None Detected
RFM2-089-Tar *322019986-0089B*	Roof - West Well - Black - Rock Roof Felt	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RFM2-089-Insulation *322019986-0089C*	Roof - West Well - Black - Rock Roof Felt	Brown Fibrous Homogeneous	70% Cellulose	20% Perlite 10% Non-fibrous (Other)	None Detected
RFM2-090-Felts *322019986-0090*	Roof - East Roof Well - Black - Rock Roof Felt	Black Fibrous Homogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
RFM2-090-Tar *322019986-0090A*	Roof - East Roof Well - Black - Rock Roof Felt	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RFM2-090-Insulation *322019986-0090B*	Roof - East Roof Well - Black - Rock Roof Felt	Brown Fibrous Homogeneous	70% Cellulose	25% Perlite 5% Non-fibrous (Other)	None Detected
HVT1-091 *322019986-0091*	Roof - West Roof - White - HVAC Duct Seam Tape	Gray/White Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
HVT1-092 *322019986-0092*	Roof - West Roof - White - HVAC Duct Seam Tape	Gray/White Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
HVT1-093 *322019986-0093*	Roof - South Well - White - HVAC Duct Seam Tape	White Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
RS1-094 *322019986-0094*	Roof - Southside Roof - Gray - Soft Roof Tile	Beige/Gold Non-Fibrous Homogeneous		20% Mica 78% Non-fibrous (Other)	2% Chrysotile
RS1-095 *322019986-0095*	Roof - South Eastside - Gray - Soft Roof Tile	Beige/Gold Non-Fibrous Homogeneous		20% Mica 78% Non-fibrous (Other)	2% Chrysotile
RS1-096 *322019986-0096*	Roof - Northside - Gray - Soft Roof Tile	Beige Non-Fibrous Homogeneous		10% Mica 88% Non-fibrous (Other)	2% Chrysotile
RS2-097 *322019986-0097*	Roof - Eastside Roof - Red - Hard Clay Roof Shingles	Gray/Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RS2-098 *322019986-0098*	Roof - Eastside Roof - Red - Hard Clay Roof Shingles	Gray/Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RS2-099 *322019986-0099*	Roof - Eastside Roof - Red - Hard Clay Roof Shingles	Gray/Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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http://www.LATesting.com / pasadenalab@latesting.com

LA Testing Order: 322019986
Customer ID: 32CITA50
Customer PO: 2007.1010.0
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
RFM3-100-Capsheet *322019986-0100*	Roof - Center Roof - Gray - Smooth Cap Sheet	White/Black Fibrous Heterogeneous	10% Synthetic 3% Glass	87% Non-fibrous (Other)	None Detected
RFM3-100-Felt *322019986-0100A*	Roof - Center Roof - Gray - Smooth Cap Sheet	Black Fibrous Heterogeneous	12% Glass	88% Non-fibrous (Other)	None Detected
RFM3-101 *322019986-0101*	Roof - Center Roof - Gray - Smooth Cap Sheet	White/Black Fibrous Heterogeneous	10% Synthetic 8% Glass	82% Non-fibrous (Other)	None Detected
RFM3-102-Cap Sheet *322019986-0102*	Roof - Center Roof - Gray - Smooth Cap Sheet	Gray/Black Fibrous Heterogeneous	20% Synthetic 5% Glass	75% Non-fibrous (Other)	None Detected
RFM3-102-Felts *322019986-0102A*	Roof - Center Roof - Gray - Smooth Cap Sheet	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
RF1-103 *322019986-0103*	Roof - Center - Black - Flashing Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RF1-104 *322019986-0104*	Roof - Center - Black - Flashing Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RF1-105 *322019986-0105*	Roof - West Roof - Black - Flashing Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RP1-106 *322019986-0106*	Roof - Center - Silver - Roof Patch	Silver/Beige Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
RP1-107 *322019986-0107*	Roof - Center - Silver - Roof Patch	Silver/Beige Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
RP1-108-Silver Paint *322019986-0108*	Roof - Center - Silver - Roof Patch	Silver Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
RP1-108-Soft Roof Tile-like *322019986-0108A*	Roof - Center - Silver - Roof Patch	Beige Non-Fibrous Homogeneous		10% Mica 88% Non-fibrous (Other)	2% Chrysotile
MISC5-109 *322019986-0109*	Roof - Center Well - Black - Pitch Pocket Mastic	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
MISC5-110 *322019986-0110*	Roof - Center Well - Black - Pitch Pocket Mastic	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
MISC5-111 *322019986-0111*	Roof - Center Well - Black - Pitch Pocket Mastic	Black Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected

Initial report from: 11/03/2020 08:24:19

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LA Testing Order:	322019986
Customer ID:	32CITA50
Customer PO:	2007.1010.0
Project ID:	

Analyst(s)

Olivia Santiago (52)
Rosa Mendoza (96)

Jerry Drapala Ph.D, Laboratory Manager
or Other Approved Signatory

Initial report from: 11/03/2020 08:24:19

#322019986

CHAIN OF CUSTODY

CITADEL EHS
assess resolve strengthen

CITADEL LOCATION:

[X] GLENDALE	[ ] ORANGE COUNTY	[ ] SIGNAL HILL	[ ] TORRANCE OFFICE
Contact: Ed Wood	Contact:		Contact:
email: ewood@citadelehs.com	email:		email:
1725 Victory Blvd.	151 Kalmus Drive	2525 Cherry Avenue. #105	3700 West 190th Street
Glendale, CA 91201	Costa Mesa, CA 92626	Signal Hill, CA 90755	Torrance, CA 90509
Phone: (818) 246-2707	Phone:(714) 547-4301	Phone: (818) 246-2707	Phone:(310) 212-1714
	Fax: (714) 547-4647		Fax:(310) 212-1702

PROJECT AND SAMPLE INFORMATION

PROJECT NUMBER: 2007.1010.0 County of Ventura Public Works

PROJECT NAME: Colston Center, 375 Hillmont Ave., Ventura, CA 10/27-28/2020

NUMBER OF SAMPLES: 111 **SAMPLE NUMBERS:** 001-111

TYPE OF SAMPLES (CIRCLE ONE): AIR TAPE WATER WIPE ZEFON ANDERSEN BULK SOIL AIR-O-CELL PLATE OTHER

111 Bulk Samples

TYPE OF ANALYSIS:

Asbestos

- ___ Phase Contrast Microscopy
- X Polarized Light Microscopy
- ___ 1st Positive Stop
- ___ Point Count ___ 400 Point Count ___ 1000 Point Count
- ___ Transmission Electron Microscopy
- ___ Qualitative ___ Quantitive

Lead

- ___ Flame Atomic Absorption
- ___ TTLC ___ STLC ___ TCLP

PLM

Culturable Air

- ___ Andersen Fungi (genue ID, Aspergillus)
- ___ Andersen Bacteria

Non-Culturable Air

- ___ Non-Viable Spore Trap Slide

Surface Samples

- ___ Surface Sample (direct examination)

Culturable Samples

- ___ Quantitative Fungi-dust, bulk swab-1 medium
- ___ Quantitative Fungi-dust, bulk swab-3 media
- ___ Quantitative Bacteria-dust, bulk swab-1 medium
- ___ Quantitative Bacteria-dust, bulk, swab-3 media
- ___ E.coli and Coliforms (MUG)

Other ___

TURNAROUND TIME (CIRCLE ONE): Rush 12 HOURS 24 HOURS 48 HOURS 3 DAYS 5 DAYS 5-10 DAYS OTHER 6- hour

REPORT RESULTS VIA (CIRCLE ALL THAT APPLY): PHONE FAX WRITTEN REPORT PDF

NOTES/COMMENTS:

TRANSMITTAL RECORD:

Relinquished By:	Received By: Edwin Truji, 110 (DB)
Date: 10/28/2020 Time: 16:49	Date: 10-29-20 Time: 8am
Relinquished By:	Received By:
Date: Time:	Date: Time:

LABORATORY INFORMATION: NAME: LA Testing LOCATION: S. Pasadena

DISPOSITION OF SAMPLES: [ ] RETURN ___ DAYS AFTER ANALYSIS [ ] OTHER ___

[ ] RETAIN FOR ___ DAYS [ ] YEAR (S) ___

Revised 9/29/06

#322019986

BULK SAMPLE DATA FORM

PROJECT NO.: 2007 10100 0

DATE: 10 28 20

PAGE 1 OF 8

CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

INSPECTOR(S): Ed Wood

SITE ADDRESS: 375 Hillmont Avenue, Ventura, CA 93003

CSST/CAC NO: #97-2208

CITADEL EHS

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
12VFT1	001	white w/GRAY	12" x 12" FLOOR TILE	1st		LOBBY AREA	7,650	SF	N	G	P
FTM 1	002	BLACK	FLOOR TILE MASTIC	TOP LAYER		~~NORTH CORRIDOR~~					
12VFT1	003	white w/GRAY	12" x 12" FLOOR TILE			NORTH CORRIDOR @ Rm 20					
FTM 1	004	BLACK	FLOOR TILE MASTIC			↓					
12VFT1	005	white w/GRAY	12" x 12" FLOOR TILE			South @ corridor Shower					
FTM 1	006	BLACK	FLOOR TILE MASTIC	2nd LAYER		↓			N	G	P
12VFT2	007	TAN	12" x 12" FLOOR TILE			LOBBY AREA	6400				
FTM 2	008	BLACK	FLOOR TILE MASTIC			↓					
12VFT2	009	TAN	12" x 12" FLOOR TILE			NORTH CORRIDOR @ Rm 20					
FTM 2	010	BLACK	FLOOR TILE MASTIC			↓					
12VFT2	011	TAN	12" x 12" FLOOR TILE			South corridor @ Showers					
FTM 2	012	BLACK	FLOOR TILE MASTIC			↓					
12VFT3	013	LT PINK	12" x 12" FLOOR TILE	MEDICAL RECORDS		EAST CORRIDOR @ ENTRANCE	590	SF	N	G	P
FTM 3	014	BLACK	FLOOR TILE MASTIC			↓					

#322019986

BULK SAMPLE DATA FORM

PROJECT NO.: 2007 1010 0

CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

SITE ADDRESS: 375 Hillmont Avenue, Ventura, CA 93003

DATE: 10 28 20

INSPECTOR(S): Ed Wood

CSST/CAC NO: #97-2208

PAGE 2 OF 8

CITADEL EHS

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
12VFT3	015	LT. PINK	12"x12" FLOORTILE	TST		MEDICAL RECORDS	SAME AS		N	G	P
FTM 3	016	BLACK	FLOORTILE MASTIC				013/014				
12VFT3	017	LT. PINK	12"X12" FLOOR TILE								
FTM 3	018	BLACK	FLOOR TILE MASTIC								
VSF 1	019	BEIGE	SHEET FLOORING			NORTH CORRIDOR	40	SF	Y	P	P
VSF 1	020										
VSF 1	021										
VSF 2	022	GRAY MOSAIC	SHEET FLOORING	LOBBY		STAFF RESTROOM	180	SF	N	G	P
VSF 2	023					SOUTH CORRIDOR RESTROOM					
VSF 2	024										
VSF 3	025	GRAY	SHEET FLOORING			SOUTH CORRIDOR S. STORAGE RMS	106	SF	N	G	P
VSF 3	026										
VSF 3	027										
VSF 4	028	TAN	SHEET FLOORING			WEST STORAGE/BREAKRM	500	SF	N	G	P

#322019986

BULK SAMPLE DATA FORM

PROJECT NO.: 2007 1010 0

CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

SITE ADDRESS: 375 Hillmont Avenue, Ventura, CA 93003

DATE: 10 28 20

INSPECTOR(S): Ed Wood

CSST/CAC NO: #97-2208

PAGE 3 OF 8

CITADEL EHS
assess resolve strengthen

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
VSF 4	029	TAN	SHEET Flooring		1ST	WEST STORAGE BREAKROOM	SAME AS		N	G	P
VSF 4	030	↓	↓			↓	028		↓	↓	↓
FCM 1	031	Yellow	CARPET MASTIC			LOBBY AREA	3215	SF	N	G	A
FCM 1	032	↓	↓			EASTSIDE OFFICES	↓		↓	↓	↓
FCM 1	033	↓	↓			CLASSROOM D	↓		↓	↓	↓
FBM 1	034	CREAM	Baseboard MASTIC			LOBBY AREA	500	SF	N	G	A
FBM 1	035	↓	↓			South CORRIDOR Room 10	↓		↓	↓	↓
FBM 1	036	↓	↓			South OFFICES	↓		↓	↓	↓
FLC 1	037	White	Floor Leveling compound			WEST DOOR ENTRANCE	380	SF	N	G	P
FLC 1	038	↓	(FLOAT)			EAST OFFICES	↓		↓	↓	↓
FLC 1	039	↓	↓			LOBBY AREA	↓		↓	↓	↓
WPF 1	040	GRAY	Smooth wall PLASTER			NORTH @ Rm 25	12,500	SF	N	G	P
WPF 1	041	↓	↓			@ Rm 14	↓		↓	↓	↓
WPF 1	042	↓	↓		↓	@ Shower Rm.	↓		↓	↓	↓

#3220199 86

BULK SAMI __ DATA FORM

PROJECT NO.: 2007 1010 0

DATE: 10 28 20

PAGE 4 OF 8

CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

INSPECTOR(S): Ed Wood

SITE ADDRESS: 375 Hillmont Avenue, Ventura, CA 93003

CSST/CAC NO: #97-2208

CITADEL EHS assess resolve strengthen

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
WPF 1	043	GRAY	Ceiling ~~Wall~~ Plaster	1st		Medical Records	Same as		N	G	P
WPF 1	044	↓	↓ Wall Plaster			Lobby Area	040		↓	↓	↓
Misc 1	045	White	Button Board			Rm 25	12,500SF		N	G	P
Misc 1	046					Rm 14					
Misc 1	047					North Corridor Shower					
Misc 1	048					Medical Records					
Misc 1	049	↓	↓			Lobby Area	↓		↓	↓	↓
4CP 1	050	White	2'x4' Ceiling Panels			Medical Records	5,800SF		Y	G	P
4CP 1	051					Lobby Area					
4CP 1	052	↓	↓			East Offices Corridor	↓		↓	↓	↓
Misc 2	053	White	4'x4' Straw Ceiling Panels			N. Corridor @ Rm 25	2,800SF		Y	G	A
Misc 2	054					Lobby Area					
Misc 2	055	↓	↓			Medical Records	↓		↓	↓	↓
SAC 1	056	White	Spray-Applied Acoustic Ceiling Material	↓		Classroom D	2,016SF		Y	G	A

#322019986

BULK SAMPLE DATA FORM

PROJECT NO.: 2007 1010 0

DATE: 10 28 20

PAGE 5 OF 8

CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

INSPECTOR(S): Ed Wood

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CITADEL EHS

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
SAC1	057	white	SPRAY-APPLIED ACOUSTIC CEILING	1ST		CLASSROOM D	SAMPLES 056		Y	G	P
SAC1	058	↓	MATERIAL ↓	↓		↓	↓		↓	↓	↓
SAC1	059	↓	↓	↓		CLASSROOM C	↓		↓	↓	↓
SAC1	060	↓	↓	↓		↓	↓		↓	↓	↓
RPE1 (PFE)	061	white	THERMAL SYSTEM INSULATION TSI	↓		LOBBY AREA	10 SF		U	G	A
RPE1	062	↓	ELBOWS |	↓		ABOVE CEILING STAIR/STORAGE	↓		↓	↓	↓
RPE1	063	↓	FIBERGLASS RUNS ↓	↓		↓	↓		↓	↓	↓
WFR1	064	white	DRYWALL	↓		EAST OFFICES STORAGE RM			N	G	P
WJC1	065	↓	JOINT COMPOUND	↓		↓	13,580		↓	↓	↓
WSR1	066	white	DRYWALL	↓		EAST OFFICES	↓		↓	↓	↓
WJC1	067	↓	JOINT COMPOUND	↓		↓	↓		↓	↓	↓
WSR1	068	white	DRYWALL	↓		LOBBY AREA	↓		↓	↓	↓
WJC1	069	↓	JOINT COMPOUND	↓		↓	↓		↓	↓	↓
SSM1	070	Black	SINK UNDER MASTIC	↓		WEST STORAGE BREAK RM	10 SF		N	G	A

#3220199 86

BULK SAMPLE DATA FORM

PROJECT NO.: 2007 1010 0

DATE: 10 28 20

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CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

INSPECTOR(S): Ed Wood

SITE ADDRESS: 375 Hillmont Avenue, Ventura, CA 93003

CSST/CAC NO: #97-2208

CITADEL EHS assess · resolve · strengthen

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
USM 1	071	Black	Sink under mastic	1	ST	West Storage Break Room	Same as 076		N	G	A
USM 1	072	↓	↓	↓		↓	↓		↓	↓	↓
MISC 3	073	Gray	Cynder Block Grout	Exterior		Westside	2,500	SF	N	G	A
MISC 3	074	↓	↓	↓		Eastside	↓		↓	↓	↓
MISC 3	075	↓	↓	↓		South side	↓		↓	↓	↓
MISC 4	076	White	Glass window Grout	Exterior		Eastside (S)	200	SF	N	G	A
MISC 4	077	↓	↓	↓		↓ (N)	↓		↓	↓	↓
MISC 4	078	↓	↓	↓		↓ Center	↓		↓	↓	↓
ES 1	079	Gray	Exterior Stucco	Exterior		Eastside (S)	650	SF	N	G	A
ES 1	080	↓	↓	↓		S. Center	↓		↓	↓	↓
ES 1	081	↓	↓	↓		↓	↓		↓	↓	↓
RPM 1	082	Gray/Black	Roof Penetration mastic	Roof		Westside	300	SF	N	G	A
RPM 1	083	↓	↓	↓		Center	↓		↓	↓	↓
RPM 1	084	↓	↓	↓		East wall	↓		↓	↓	↓

#322019986

BULK SAMPLE DATA FORM

PROJECT NO.: 2007 10100

CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

SITE ADDRESS: 375 Hillmont Avenue, Ventura, CA 93003

DATE: 10 28 20

INSPECTOR(S): Ed Wood

CSST/CAC NO: #97-2208

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CITADEL EHS assess resolve strengthen

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
RFM 1	085	GRAY	Roof Cap Sheet Felt, Tar core	Roof		East center S	625	SF	N	G	A
RFM 1	086	↓	↓	↓		↓ N	↓		↓	↓	↓
RFM 1	087	↓	↓			East well	↓		↓	↓	↓
RFM 2	088	Black	Rock Roof Felt			South	5,670	SF	N	G	A
RFM 2	089	↓	↓			West well			↓	↓	↓
RFM 2	090	↓	↓			East Roof well	↓		↓	↓	↓
HVT 1	091	White	HVAC Duct Seam Tape			West Roof	250	SF	N	G	A
HVT 1	092	↓	↓			↓					
HVT 1	093	↓	↓			South well	↓		↓	↓	↓
RS 1	094	GRAY	Soft Roof Tile			South side Roof	3,465	SF	Y	G	A
RS 1	095	↓	↓			South East side	↓		↓	↓	↓
RS 1	096	↓	↓			North side	↓		↓	↓	↓
RS 2	097	Red	Hard Clay Roof Shingles			East side Roof	9,400	SF	N	G	A
RS 2	098	↓	↓	↓		↓	↓		↓	↓	↓

#322019986

BULK SAMPLE DATA FORM

PROJECT NO.: 2007 10100

CLIENT: COUNTY OF VENTURA - PUBLIC WORKS

PROJECT ID: Demo Survey, Colston Center

SITE ADDRESS: 375 Hillmont Avenue, Ventura, CA 93003

DATE: 10 28 20

INSPECTOR(S): Ed Wood

CSST/CAC NO: #97-2208

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CITADEL EHS

HA TYPE / HA NO.	SAMPLE NO.	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: TEXTURE/PATTERN	BULK SAMPLE LOCATION: UNIT	BULK SAMPLE LOCATION: LEVEL	BULK SAMPLE LOCATION: AREA/LOCATION	QUANTITY: NO.	QUANTITY: UNIT	FRIABILITY	MATERIAL CONDITION	DAMAGE TYPE
RSS2	099	Red	Clay Hand Roof Shingle	Roof		Eastside Roof	SIMILAR 097		N	G	A
RFM3	000	GRAY	Smooth Cap Sheet			Center Roof	660	SF	N	G	A
RFM3	101	↓	↓			↓	↓		↓	↓	↓
RFM3	002										
RF1	103	Black	Flashing Mastic			Center	1,500	SF	N	G	A
RF1	104										
RF1	105					West Roof					
RP1	106	Silver	Roof Patch			Center	20	SF	N	G	A
RP1	107										
RP1	108										
MISC5	109	Black	Pitch Pocket Mastic			Center West	10	SF	N	G	A
MISC5	110		(4 ea)								
MISC5	111										
		End									

111

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Appendix F
Table 3.0 - Lead XRF SA Results

TABLE 3.0 - XRF SA RESULTS
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

Reading No	Time	Type	Units	Sequence	Component	Substrate	Side	Condition	Color	Inspector	Floor	Room	MISC	Results	Action Level	Lead Result (mg/cm2)
1	*10/27/2020 11:15*	*SHUTTER_CAL*	*cps*	*Final*												*4.37*
2	*10/27/2020 11:16*	*PAINT*	*mg / cm ^2*	*Final*			*CALIBRATE*							*Positive*	*1.0*	*1.2*
3	*10/27/2020 11:17*	*PAINT*	*mg / cm ^2*	*Final*			*CALIBRATE*							*Positive*	*1.0*	*1.2*
4	*10/27/2020 11:18*	*PAINT*	*mg / cm ^2*	*Final*			*CALIBRATE*							*Positive*	*1.0*	*1.2*
5	10/27/2020 11:41	PAINT	mg / cm ^2	FINAL	WALL	DRYWALL	D	INTACT	WHITE	ADRIAN TERCERO	1st	LOBBY		NEGATIVE	1.0	0
6	10/27/2020 11:44	PAINT	mg / cm ^2	FINAL	WALL	BLOCK	B	INTACT	WHITE	ADRIAN TERCERO	1st	LOBBY		NEGATIVE	1.0	0
7	10/27/2020 11:47	PAINT	mg / cm ^2	FINAL	WALL	WIRE GLASS	B	INTACT	CLEAR	ADRIAN TERCERO	1st	LOBBY		NEGATIVE	1.0	0
8	10/27/2020 11:48	PAINT	mg / cm ^2	FINAL	WINDOW SILL	METAL	B	INTACT	WHITE	ADRIAN TERCERO	1st	LOBBY		LCP	1.0	0.02
9	10/27/2020 11:51	PAINT	mg / cm ^2	FINAL	WINDOW	TEXTURED GLASS	B	INTACT	CLEAR	ADRIAN TERCERO	1st	LOBBY		NEGATIVE	1.0	0
10	10/27/2020 11:57	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	D	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE SOUTH	LCP	1.0	0.03
11	10/27/2020 12:03	PAINT	mg / cm ^2	FINAL	WALL	WOOD	A	INTACT	WHITE	ADRIAN TERCERO	1st	4	SIDE SOUTH	LCP	1.0	0.03
12	10/27/2020 12:03	PAINT	mg / cm ^2	FINAL	DOOR	WOOD	D	INTACT	WHITE	ADRIAN TERCERO	1st	4	SIDE SOUTH	LCP	1.0	0.03
13	10/27/2020 12:04	PAINT	mg / cm ^2	FINAL	WINDOW SILL	METAL	D	INTACT	WHITE	ADRIAN TERCERO	1st	4	SIDE SOUTH	LCP	1.0	0.01
14	10/27/2020 12:05	PAINT	mg / cm ^2	FINAL	WINDOW	WINDOW WIRE	D	INTACT	CLEAR	ADRIAN TERCERO	1st	4	SIDE SOUTH	NEGATIVE	1.0	0
15	10/27/2020 12:07	PAINT	mg / cm ^2	FINAL	WALL	BLOCK	D	PEELING	WHITE	ADRIAN TERCERO	1st	8	SIDE SOUTH	LCP	1.0	0.03
16	10/27/2020 12:09	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	A	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE SOUTH	LCP	1.0	0.03
17	10/27/2020 12:10	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	C	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE SOUTH	LBP	1.0	4.4
18	10/27/2020 12:12	PAINT	mg / cm ^2	FINAL	WATER FOUNTAIN	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE SOUTH	LCP	1.0	0.03
21	10/27/2020 12:15	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	D	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	LOBBY	LCP	1.0	0.01
22	10/27/2020 12:15	PAINT	mg / cm ^2	FINAL	TOILET	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	LOBBY	LCP	1.0	0.01
24	10/27/2020 12:16	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	LOBBY	LCP	1.0	0.04
25	10/27/2020 12:32	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	A	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE WEST	NEGATIVE	1.0	0
26	10/27/2020 12:33	PAINT	mg / cm ^2	FINAL	WALL	BLOCK	D	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE WEST	LCP	1.0	0.05
27	10/27/2020 12:34	PAINT	mg / cm ^2	FINAL	COUNTER	CERAMIC	B	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE WEST	NEGATIVE	1.0	0
28	10/27/2020 12:34	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE WEST	NEGATIVE	1.0	0
29	10/27/2020 12:47	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	C	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE WEST	LCP	1.0	0.02
30	10/27/2020 12:48	PAINT	mg / cm ^2	FINAL	WINDOW SILL	METAL	C	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE NORTH	NEGATIVE	1.0	0
31	10/27/2020 12:50	PAINT	mg / cm ^2	FINAL	WINDOW	WINDOW WIRE	C	INTACT	CLEAR	ADRIAN TERCERO	1st	HALL	SIDE NORTH	NEGATIVE	1.0	0
32	10/27/2020 12:50	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	C	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE NORTH	LCP	1.0	0.01
33	10/27/2020 12:53	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	D	INTACT	GREY	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.04
34	10/27/2020 12:53	PAINT	mg / cm ^2	FINAL	FLOOR	CERAMIC	D	INTACT	GREY	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.02
35	10/27/2020 12:53	PAINT	mg / cm ^2	FINAL	FLOOR	CERAMIC	D	INTACT	GREY	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.01
36	10/27/2020 12:56	PAINT	mg / cm ^2	FINAL	TOILET	PORCELAIN	C	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.01
37	10/27/2020 12:56	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	C	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.01
38	10/27/2020 12:57	PAINT	mg / cm ^2	FINAL	DOOR	WOOD	D	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	NEGATIVE	1.0	0
39	10/27/2020 12:57	PAINT	mg / cm ^2	FINAL	DOOR FRAME	METAL	D	INTACT	BLUE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.06
41	10/27/2020 12:58	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	D	INTACT	BLUE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	NEGATIVE	1.0	0
42	10/27/2020 13:16	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	B	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE NORTH	LCP	1.0	0.01
44	10/27/2020 13:20	PAINT	mg / cm ^2	FINAL	WALL	WOOD	A	INTACT	WHITE	ADRIAN TERCERO	1st	20	SIDE NORTH	LCP	1.0	0.04
45	10/27/2020 13:21	PAINT	mg / cm ^2	FINAL	DOOR	WOOD	B	INTACT	WHITE	ADRIAN TERCERO	1st	20	SIDE NORTH	NEGATIVE	1.0	0
46	10/27/2020 13:21	PAINT	mg / cm ^2	FINAL	DOOR	WOOD	B	INTACT	WHITE	ADRIAN TERCERO	1st	20	SIDE NORTH	NEGATIVE	1.0	0
47	10/27/2020 13:21	PAINT	mg / cm ^2	FINAL	DOOR FRAME	WOOD	B	INTACT	WHITE	ADRIAN TERCERO	1st	20	SIDE NORTH	LCP	1.0	0.07
48	10/27/2020 13:22	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	A	INTACT	WHITE	ADRIAN TERCERO	1st	CLOSET	SIDE NORTH	LBP	1.0	6.2
49	10/27/2020 13:24	PAINT	mg / cm ^2	FINAL	DOOR	METAL	B	INTACT	WHITE	ADRIAN TERCERO	1st	12	SIDE NORTH	NEGATIVE	1.0	0
50	10/27/2020 13:24	PAINT	mg / cm ^2	FINAL	DOOR	METAL	B	INTACT	WHITE	ADRIAN TERCERO	1st	12	SIDE NORTH	NEGATIVE	1.0	0
51	10/27/2020 13:24	PAINT	mg / cm ^2	FINAL	DOOR FRAME	METAL	B	INTACT	WHITE	ADRIAN TERCERO	1st	12	SIDE NORTH	NEGATIVE	1.0	0
52	10/27/2020 13:31	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	C	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
53	10/27/2020 13:34	PAINT	mg / cm ^2	FINAL	WALL	BLOCK	A	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
54	10/27/2020 13:34	PAINT	mg / cm ^2	FINAL	DOOR	METAL	A	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
55	10/27/2020 13:35	PAINT	mg / cm ^2	FINAL	DOOR FRAME	METAL	A	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
56	10/27/2020 13:35	PAINT	mg / cm ^2	FINAL	DOOR WINDOW SILL	METAL	A	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	LCP	1.0	0.01
58	10/27/2020 13:36	PAINT	mg / cm ^2	FINAL	DOOR WINDOW	WINDOW WIRE	A	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
59	10/27/2020 13:41	PAINT	mg / cm ^2	FINAL	WALL	DRYWALL	B	INTACT	BEIGE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
61	10/27/2020 13:42	PAINT	mg / cm ^2	FINAL	WALL	DRYWALL	C	INTACT	BEIGE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
62	10/27/2020 13:43	PAINT	mg / cm ^2	FINAL	WINDOW SILL	METAL	C	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
63	10/27/2020 13:43	PAINT	mg / cm ^2	FINAL	WINDOW	WINDOW WIRE	C	INTACT	CLEAR	ADRIAN TERCERO	1st	HALL	SIDE EAST	NEGATIVE	1.0	0
64	10/27/2020 13:45	PAINT	mg / cm ^2	FINAL	WALL	BLOCK	B	INTACT	BEIGE	ADRIAN TERCERO	1st	OFFICE	SIDE EAST	NEGATIVE	1.0	0
65	10/27/2020 13:47	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	B	INTACT	PINK	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LCP	1.0	0.01

TABLE 3.0 - XRF SA RESULTS
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

Reading No	Time	Type	Units	Sequence	Component	Substrate	Side	Condition	Color	Inspector	Floor	Room	MISC	Results	Action Level	Lead Result (mg/cm2)
66	10/27/2020 13:47	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	B	INTACT	BEIGE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LBP	1.0	8
67	10/27/2020 13:48	PAINT	mg / cm ^2	FINAL	FLOOR	CERAMIC	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LCP	1.0	0.05
68	10/27/2020 13:48	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LBP	1.0	5.4
69	10/27/2020 13:49	PAINT	mg / cm ^2	FINAL	TOILET	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	NEGATIVE	1.0	0
70	10/27/2020 13:50	PAINT	mg / cm ^2	FINAL	WALL	DRYWALL	C	INTACT	BEIGE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	NEGATIVE	1.0	0
71	10/27/2020 13:51	PAINT	mg / cm ^2	FINAL	DOOR	METAL	D	INTACT	WHITE	ADRIAN TERCERO	1st	GARAGE	SIDE EAST	NEGATIVE	1.0	0
72	10/27/2020 13:51	PAINT	mg / cm ^2	FINAL	DOOR FRAME	METAL	D	INTACT	WHITE	ADRIAN TERCERO	1st	GARAGE	SIDE EAST	LCP	1.0	0.01
73	10/27/2020 13:52	PAINT	mg / cm ^2	FINAL	DOOR WINDOW SILL	METAL	D	INTACT	WHITE	ADRIAN TERCERO	1st	GARAGE	SIDE EAST	NEGATIVE	1.0	0
74	10/27/2020 13:52	PAINT	mg / cm ^2	FINAL	DOOR WINDOW	GLASS WIRE	D	INTACT	CLEAR	ADRIAN TERCERO	1st	GARAGE	SIDE EAST	NEGATIVE	1.0	0
75	10/27/2020 14:01	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	D	INTACT	COLLEGE	ADRIAN TERCERO	1st	OUTSIDE	SIDE EAST	LCP	1.0	0.06
77	10/27/2020 14:42	PAINT	mg / cm ^2	FINAL	WALL	STUCCO	B	INTACT	TAN	ADRIAN TERCERO	ROOFTOP	OUTSIDE	SIDE EAST	NEGATIVE	1.0	0
78	10/27/2020 14:43	PAINT	mg / cm ^2	FINAL	TRIM	METAL	B	INTACT	RED	ADRIAN TERCERO	ROOFTOP	OUTSIDE	SIDE EAST	LCP	1.0	0.01
79	10/27/2020 14:44	PAINT	mg / cm ^2	FINAL	TRIM	METAL	D	INTACT	TAN	ADRIAN TERCERO	ROOFTOP	OUTSIDE	SIDE EAST	LCP	1.0	0.01
80	10/27/2020 14:44	PAINT	mg / cm ^2	FINAL	TRIM	METAL	D	INTACT	TAN	ADRIAN TERCERO	ROOFTOP	OUTSIDE	SIDE EAST	NEGATIVE	1.0	0
83	*10/27/2020 14:49*	*PAINT*	*mg / cm ^2*	*Final*			*CALIBRATE*							*Positive*	*1.0*	*1.2*
84	*10/27/2020 14:50*	*PAINT*	*mg / cm ^2*	*Final*			*CALIBRATE*							*Positive*	*1.0*	*1.2*
85	*10/27/2020 14:50*	*PAINT*	*mg / cm ^2*	*Final*			*CALIBRATE*							*Positive*	*1.0*	*1.2*

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Appendix G
Table 3.1 - Lead XRF Results - LBP (Positive)

TABLE 3.1 - XRF SA RESULTS
LEAD-BASED PAINTS (≤1.0 mg/cm^2)
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

Reading No	Time	Type	Units	Sequence	Component	Substrate	Side	Condition	Color	Inspector	Floor	Room	MISC	Results	Action Level	Lead Result (mg/cm2)
17	10/27/2020 12:10	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	C	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE SOUTH	LBP	1.0	4.4
48	10/27/2020 13:22	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	A	INTACT	WHITE	ADRIAN TERCERO	1st	CLOSET	SIDE NORTH	LBP	1.0	6.2
66	10/27/2020 13:47	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	B	INTACT	BEIGE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LBP	1.0	8
68	10/27/2020 13:48	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LBP	1.0	5.4

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Appendix H
Table 3.2 - Lead XRF Results (LCP)

TABLE 3.2 - XRF SA RESULTS
LEAD-CONTAINING PAINTS (≥0.01 mg/cm^2 AND <1.0mg/cm^2)
ENVIRONMENTALLY-REGULATED MATERIALS SURVEY
375 HILLMONT AVENUE
VENTURA, CALIFORNIA 93003

Reading No	Time	Type	Units	Sequence	Component	Substrate	Side	Condition	Color	Inspector	Floor	Room	MISC	Results	Action Level	Lead Result (mg/cm2)
8	10/27/2020 11:48	PAINT	mg / cm ^2	FINAL	WINDOW SILL	METAL	B	INTACT	WHITE	ADRIAN TERCERO	1st	LOBBY		LCP	1.0	0.02
10	10/27/2020 11:57	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	D	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE SOUTH	LCP	1.0	0.03
11	10/27/2020 12:03	PAINT	mg / cm ^2	FINAL	WALL	WOOD	A	INTACT	WHITE	ADRIAN TERCERO	1st	4	SIDE SOUTH	LCP	1.0	0.03
12	10/27/2020 12:03	PAINT	mg / cm ^2	FINAL	DOOR	WOOD	D	INTACT	WHITE	ADRIAN TERCERO	1st	4	SIDE SOUTH	LCP	1.0	0.03
13	10/27/2020 12:04	PAINT	mg / cm ^2	FINAL	WINDOW SILL	METAL	D	INTACT	WHITE	ADRIAN TERCERO	1st	4	SIDE SOUTH	LCP	1.0	0.01
15	10/27/2020 12:07	PAINT	mg / cm ^2	FINAL	WALL	BLOCK	D	PEELING	WHITE	ADRIAN TERCERO	1st	8	SIDE SOUTH	LCP	1.0	0.03
16	10/27/2020 12:09	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	A	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE SOUTH	LCP	1.0	0.03
18	10/27/2020 12:12	PAINT	mg / cm ^2	FINAL	WATER FOUNTAIN	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE SOUTH	LCP	1.0	0.03
21	10/27/2020 12:15	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	D	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	LOBBY	LCP	1.0	0.01
22	10/27/2020 12:15	PAINT	mg / cm ^2	FINAL	TOILET	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	LOBBY	LCP	1.0	0.01
24	10/27/2020 12:16	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	LOBBY	LCP	1.0	0.04
26	10/27/2020 12:33	PAINT	mg / cm ^2	FINAL	WALL	BLOCK	D	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE WEST	LCP	1.0	0.05
29	10/27/2020 12:47	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	C	INTACT	WHITE	ADRIAN TERCERO	1st	CLASSROOM	SIDE WEST	LCP	1.0	0.02
32	10/27/2020 12:50	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	C	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE NORTH	LCP	1.0	0.01
33	10/27/2020 12:53	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	D	INTACT	GREY	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.04
34	10/27/2020 12:53	PAINT	mg / cm ^2	FINAL	FLOOR	CERAMIC	D	INTACT	GREY	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.02
35	10/27/2020 12:53	PAINT	mg / cm ^2	FINAL	FLOOR	CERAMIC	D	INTACT	GREY	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.01
36	10/27/2020 12:56	PAINT	mg / cm ^2	FINAL	TOILET	PORCELAIN	C	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.01
37	10/27/2020 12:56	PAINT	mg / cm ^2	FINAL	SINK	PORCELAIN	C	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.01
39	10/27/2020 12:57	PAINT	mg / cm ^2	FINAL	DOOR FRAME	METAL	D	INTACT	BLUE	ADRIAN TERCERO	1st	RESTROOM & SHOWER	SIDE NORTH	LCP	1.0	0.06
42	10/27/2020 13:16	PAINT	mg / cm ^2	FINAL	WALL	PLASTER	B	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE NORTH	LCP	1.0	0.01
44	10/27/2020 13:20	PAINT	mg / cm ^2	FINAL	WALL	WOOD	A	INTACT	WHITE	ADRIAN TERCERO	1st	20	SIDE NORTH	LCP	1.0	0.04
47	10/27/2020 13:21	PAINT	mg / cm ^2	FINAL	DOOR FRAME	WOOD	B	INTACT	WHITE	ADRIAN TERCERO	1st	20	SIDE NORTH	LCP	1.0	0.07
56	10/27/2020 13:35	PAINT	mg / cm ^2	FINAL	DOOR WINDOW SILL	METAL	A	INTACT	WHITE	ADRIAN TERCERO	1st	HALL	SIDE EAST	LCP	1.0	0.01
65	10/27/2020 13:47	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	B	INTACT	PINK	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LCP	1.0	0.01
67	10/27/2020 13:48	PAINT	mg / cm ^2	FINAL	FLOOR	CERAMIC	B	INTACT	WHITE	ADRIAN TERCERO	1st	RESTROOM	SIDE EAST	LCP	1.0	0.05
72	10/27/2020 13:51	PAINT	mg / cm ^2	FINAL	DOOR FRAME	METAL	D	INTACT	WHITE	ADRIAN TERCERO	1st	GARAGE	SIDE EAST	LCP	1.0	0.01
75	10/27/2020 14:01	PAINT	mg / cm ^2	FINAL	WALL	CERAMIC	D	INTACT	COLLEGE	ADRIAN TERCERO	1st	OUTSIDE	SIDE EAST	LCP	1.0	0.06
78	10/27/2020 14:43	PAINT	mg / cm ^2	FINAL	TRIM	METAL	B	INTACT	RED	ADRIAN TERCERO	ROOFTOP	OUTSIDE	SIDE EAST	LCP	1.0	0.01
79	10/27/2020 14:44	PAINT	mg / cm ^2	FINAL	TRIM	METAL	D	INTACT	TAN	ADRIAN TERCERO	ROOFTOP	OUTSIDE	SIDE EAST	LCP	1.0	0.01

PLAN SHEETS

(8 Sheets)

VENTURA COUNTY MEDICAL CENTER
COLSTON BUILDING DEMOLITION

PROJECT NO: P6T20011
SPEC NO: CP22-02

LOCATION MAP

N.T.S.

PROJECT DIRECTORY:

CIVIL / MECHANICAL / PLUMBING:
PHOENIX CIVIL ENGINEERING
535 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 658-6800

ELECTRICAL:
IRJ ENGINEERS, INC.
4517 MARKET STREET, SUITE 1B
VENTURA, CA 93003
(805) 642-2355

SITE ADDRESS:
375 HILLMONT AVENUE
VENTURA, CA 93003

SCOPE OF WORK:

THIS SITE WORK WILL CONSIST OF DEMOLITION AND REMOVAL OF THE EXISTING ONE STORY STRUCTURE IN ITS ENTIRETY, INCLUDING EXISTING FOUNDATION, CONCRETE WALKWAYS, ALL EXISTING UTILITY LINES FROM THE BUILDING, LANDSCAPING, TREES AND BORDER WALL AND FENCE ETC.

GOVERNING CODES:

2019 CALIFORNIA BUILDING CODE, TITLE 24 C.C.R.
2019 CALIFORNIA ELECTRICAL CODE, TITLE 24 C.C.R.
2019 CALIFORNIA MECHANICAL CODE, TITLE 24 C.C.R.
2019 CALIFORNIA PLUMBING CODE, TITLE 24 C.C.R.
2019 CALIFORNIA FIRE CODE, TITLE 24 C.C.R.
(LOCAL CODES AND ORDINANCES)

UTILITY CONTACTS

SOUTHERN CALIFORNIA EDISON
MORGAN STRUNK, SERVICE PLANNER
10060 TELEGRAPH RD.
VENTURA, CA 93004
MORGAN.STRUNK@SCE.COM
805-494-7052

SOUTHERN CALIFORNIA EDISON
AMY BIAMONTE, TRANSMISSION R/W AGENT
10060 TELEGRAPH RD.
VENTURA, CA 93004
AMY.BIAMONTE@SCE.COM
805-654-7407

SOUTHERN CALIFORNIA GAS CO. - DISTRIBUTION
WHUEY-WEN HARTMAN, PLANNING ASSOCIATE
9400 OAKDALE AVE
CHATSWORTH, CA 91311
WHARTMAN@SOCALGAS.COM
818-701-4517

SOUTHERN CALIFORNIA GAS CO. - TRANSMISSION
ROSALYN SQUIRES
9400 OAKDALE AVE
CHATSWORTH, CA 91311
RSQUIRES@SOCALGAS.COM
818-701-4546

VENTURA WATER
CITY OF VENTURA
336 SANJON ROAD
VENTURA, CA 93001
805-667-6500

Know what's **below.**
Call 811 before you dig.

SHEET INDEX

VENTURA COUNTY HEALTH CARE AGENCY
PUBLIC VENTURA COUNTY WORKS
ENGINEERING SERVICES

PREPARED BY:
PHOENIX CIVIL ENGINEERING, INC.
535 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 658-6800

PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER JONATHON M. TURNER EXP. 12/31/22 CIVIL STATE OF CALIFORNIA

PERMIT APPROVAL STAMP

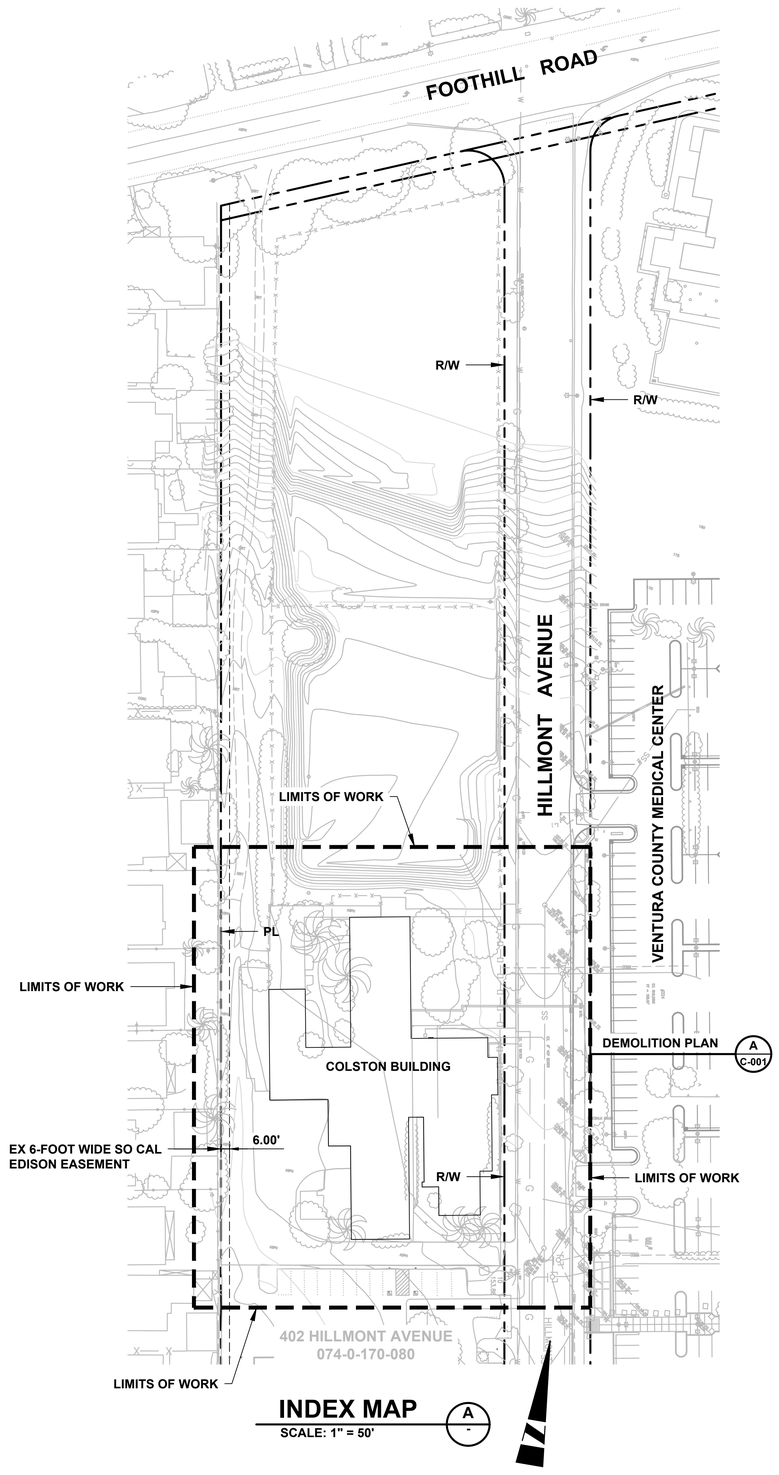
PERMIT NO OSHPD H

NO	REVISION	DATE
	ISSUED FOR BID	05/16/22
△		

HEALTH CARE / AGENCY 5/19/22
DIRECTOR OF PUBLIC WORKS 5/19/22
DEPUTY DIRECTOR OF PUBLIC WORKS 5/19/2022
PUBLIC WORKS PROJECT MANAGER DEVI NALLAMALLA 5/16/22
CONSULTANT PROJECT MANAGER JON TURNER
DRAWN BY ADS | CHECKED BY JMT
CONSULTANT JOB NO MVCW20-14 | DATE 04/23/2021

PROJECT TITLE AND ADDRESS
VENTURA COUNTY MEDICAL CENTER COLSTON BLDG. DEMOLITION
375 HILLMONT AVE
VENTURA, CA 93003

COUNTY SPEC NUMBER CP22-02
COUNTY PROJECT NUMBER P6T20011
COUNTY DWG NO | SHEET 1 OF 8
SHEET TITLE
COVER SHEET
SHEET NO G-001



INDEX MAP

SCALE: 1" = 50'

A
-

Know what's **below.**
Call 811 before you dig.

ABBREVIATIONS

AC	ASPHALT CONCRETE
ACM	ASBESTOS CONTAINING MATERIAL
AB	AGGREGATE BASE
CONC	CONCRETE
DWG	DRAWING
ESMT	EASEMENT
EX	EXISTING
EXP	EXPIRATION
FS	FINISH SURFACE
HB	HOSE BIBB
HI	HIGH
LBP	LEAD BASED PAINT
L.F.	LINEAR FEET
MH	MANHOLE
N.T.S.	NOT TO SCALE
PB	PULL BOX
PL	PROPERTY LINE
PT	POINT
PVMT	PAVEMENT
R/W	RIGHT-OF-WAY
SF	SQUARE FEET
SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
STD	STANDARD
TC	TOP OF CURB
UV	ULTRAVIOLET
UW	UTILITY WATER
VCMC	VENTURA COUNTY MEDICAL CENTER

VENTURA COUNTY
HEALTH CARE AGENCY

PUBLIC
VENTURA COUNTY
WORKS

ENGINEERING SERVICES

PREPARED BY:
PHOENIX CIVIL ENGINEERING, INC.
535 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 658-6800

PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER
JONATHON M. TURNER
No. 74324
Exp. 12/31/22
CIVIL
STATE OF CALIFORNIA

PERMIT APPROVAL STAMP

PERMIT NO OSHPD H

NO	REVISION	DATE
	ISSUED FOR BID	05/16/22
△		

PUBLIC WORKS PROJECT MANAGER
DEVI NALLAMALA

CONSULTANT PROJECT MANAGER
JON TURNER

DRAWN BY	CHECKED BY
ADS	JMT
CONSULTANT JOB NO	DATE
MVCW20-14	04/23/2021

PROJECT TITLE AND ADDRESS

VENTURA COUNTY MEDICAL CENTER COLSTON BLDG. DEMOLITION

375 HILLMONT AVE
VENTURA, CA 93003

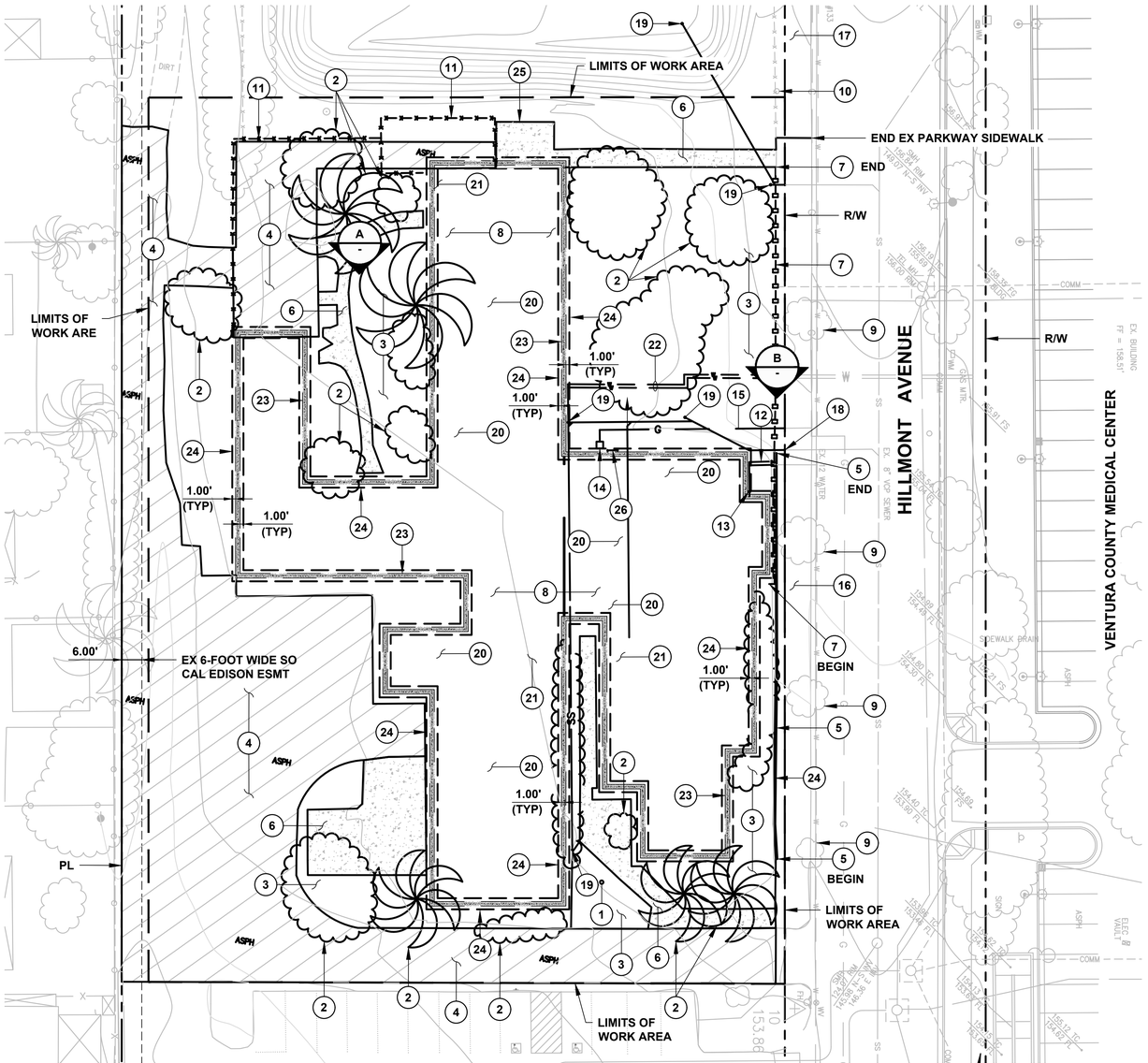
COUNTY SPEC NUMBER
CP22-02

COUNTY PROJECT NUMBER
P6T20011

COUNTY DWG NO | SHEET 2 OF 8

SHEET TITLE
INDEX MAP
AND
ABBREVIATIONS

SHEET NO
G-002



402 HILLMONT AVENUE
074-0-170-080

375 HILLMONT COLSTON BUILDING DEMOLITION PLAN (1 / -)

SCALE: 1" = 20'

SCALE: 1" = 20'
20' 10' 0 20' 40'
SCALE IN FEET

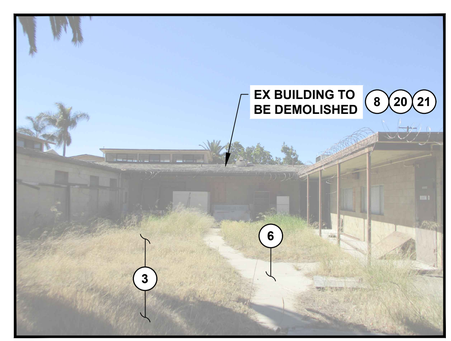
EXISTING UTILITIES HAVE BEEN PLACED TO THE BEST OF THE ENGINEER'S ABILITY. THE UTILITIES HAVE BEEN LOCATED PER RECORD DRAWINGS SUPPLIED BY VENTURA COUNTY PUBLIC WORKS AND A FIELD VISIT. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES TO BE REMOVED OR ABANDONED.

ALL THE ITEMS REMOVED SHALL BE LEGALLY DISPOSED OF PER COUNTY OF VENTURA REQUIREMENTS.

Know what's below. Call 811 before you dig.

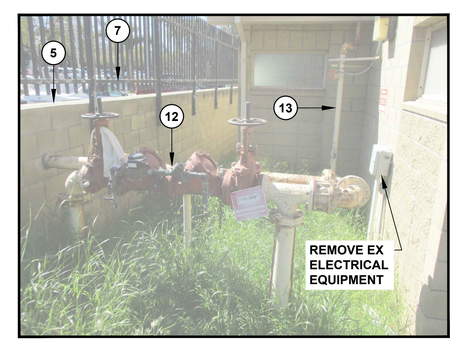
DEMOLITION NOTES:

1. REMOVE EX FLAG POLE.
2. REMOVE EX TREE.
3. REMOVE ALL EX LANDSCAPING WITHIN LIMITS OF WORK. REMOVE ALL EX IRRIGATION LINES AND EX IRRIGATION BOXES. SEE PHOTO (K / C-002)
4. REMOVE EX AC PAVEMENT.
5. REMOVE EX CONCRETE BLOCK WALL.
6. REMOVE EX CONCRETE.
7. REMOVE EX WROUGHT IRON FENCE.
8. DEMOLISH EX BUILDING. DISCONNECT ALL EX UTILITIES TO BUILDING PRIOR TO REMOVAL.
9. PROTECT EX PARKWAY TREE IN PLACE.
10. PROTECT EX UTILITY BOX IN PLACE.
11. REMOVE EX CHAIN LINK FENCE.
12. EXPOSE EX WATERLINE AT A POINT 3-FEET BELOW GRADE, CUT AND ABANDON THE EX SERVICE BELOW GRADE. REMOVE EX BACKFLOW PREVENTER. SEE PHOTO (A / C-002)
13. REMOVE EX FIRE SERVICE. SEE PHOTO (B / C-002) EX FIRE SERVICE SHALL BE ABANDONED AT THE BACK OF SIDEWALK BELOW GRADE. SEE (F / C-002)
14. REMOVE EX GAS METER. COORDINATE SERVICE TERMINATION AND ABANDONMENT WITH SOUTHERN CALIFORNIA GAS COMPANY. SEE PHOTO (C / C-002)
15. REMOVE EX GAS LINE. CUT AND CAP AT PROPERTY LINE. COORDINATE ABANDONMENT WITH THE GAS COMPANY.
16. PROTECT EX PARKWAY CONCRETE SIDEWALK IN PLACE.
17. PROTECT EX PARKWAY LANDSCAPING IN PLACE.
18. LOCATE EX BUILDING SEWER LATERAL. CUT AND CAP AT PROPERTY LINE. SEE (F / C-002)
19. REMOVE EX SEWER CLEANOUT TO BE ABANDONED BELOW GRADE. CONTRACTOR TO COORDINATE WITH VENTURA WATER FOR ABANDONMENT. SEE (E / C-002)
20. POSITIVE ACM (>1%). REFER TO THE ENVIRONMENTALLY REGULATED MATERIALS SURVEY REPORT PREPARED BY CITADEL EHS, DATED DECEMBER 1, 2020 FOR LOCATIONS AND RECOMMENDATIONS.
21. POSITIVE LBP. REFER TO THE ENVIRONMENTALLY REGULATED MATERIALS SURVEY REPORT PREPARED BY CITADEL EHS, DATED DECEMBER 1, 2020 FOR LOCATIONS AND RECOMMENDATIONS .
22. EX HOT WATER PIPING TO BE ABANDONED BELOW GRADE. SEE (F / C-002) SEE PHOTO (I / C-002)
23. REMOVE EX 1'-4" WIDE X 1'-0" DEEP CONCRETE FOOTING. TOP OF FOOTING IS 1'-4" BELOW THE FINISHED SURFACE. FOOTINGS PLACED PER RECORD DRAWINGS FOR VENTURA COUNTY GIRLS HOME JOB NO. 66280 AND COLSTON CENTER RENOVATION JOB NO. 97449.
24. 1-FOOT OUTSIDE X 3-FOOT DEEP EXCAVATION LINE AROUND EX BUILDING FOOTINGS. DISCONNECT ALL EX UTILITIES TO BUILDING PRIOR TO EXCAVATION.
25. REMOVE EX ELECTRICAL EQUIPMENT/SERVICE. SEE (D / C-002)
26. REMOVE EX WATER SERVICE PIPING. SEE PHOTO (J / C-002) EX WATER SERVICE SHALL BE ABANDONED AT THE BACK OF SIDEWALK BELOW GRADE. SEE (F / C-002)



QUAD AREA DEMOLITION (A / -)

SCALE: N.T.S.



BACKFLOW AREA OVERVIEW (B / -)

SCALE: N.T.S.

VENTURA COUNTY HEALTH CARE AGENCY

PUBLIC VENTURA COUNTY WORKS

ENGINEERING SERVICES

PREPARED BY:
PHOENIX CIVIL ENGINEERING, INC.
535 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 658-6800

PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER JONATHON M. TURNER No. 74223 Exp. 12/31/22 CIVIL STATE OF CALIFORNIA

PERMIT APPROVAL STAMP

PERMIT NO OSHPD H

NO	REVISION	DATE
	ISSUED FOR BID	05/16/22

PUBLIC WORKS PROJECT MANAGER: DEVI NALLAMALA

CONSULTANT PROJECT MANAGER: JON TURNER

DRAWN BY: ADS | CHECKED BY: JMT

CONSULTANT JOB NO: MVCW20-14 | DATE: 04/23/2021

PROJECT TITLE AND ADDRESS

VENTURA COUNTY MEDICAL CENTER COLSTON BLDG. DEMOLITION

375 HILLMONT AVE
VENTURA, CA 93003

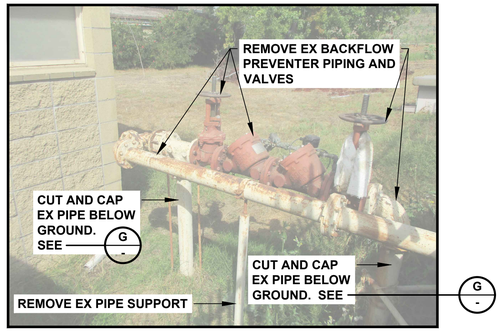
COUNTY SPEC NUMBER: CP22-02

COUNTY PROJECT NUMBER: P6T20011

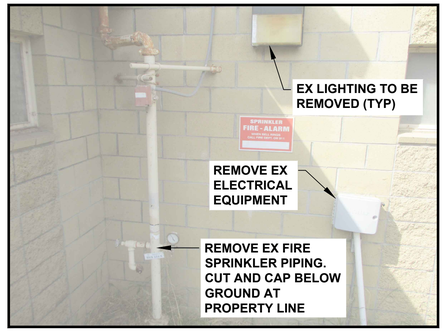
COUNTY DWG NO | SHEET 3 OF 8

SHEET TITLE: DEMOLITION PLAN

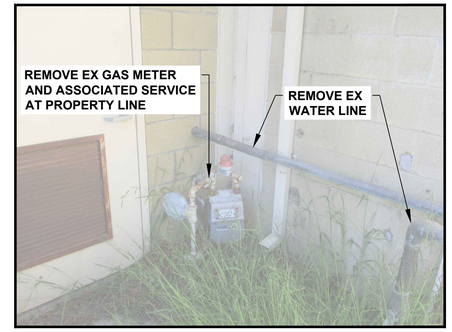
SHEET NO: C-001



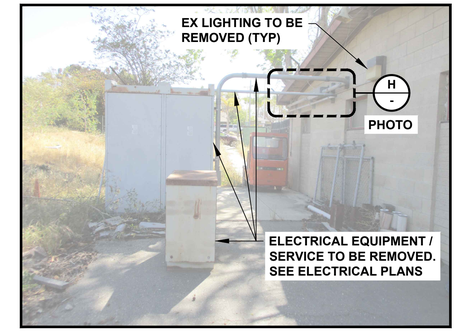
BACKFLOW PREVENTER DEMOLITION (A -)
SCALE: N.T.S.



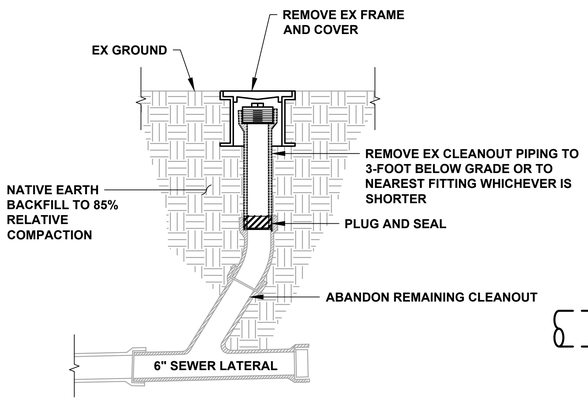
FIRE RISER DEMOLITION (B -)
SCALE: N.T.S.



GAS METER DEMOLITION (C -)
SCALE: N.T.S.

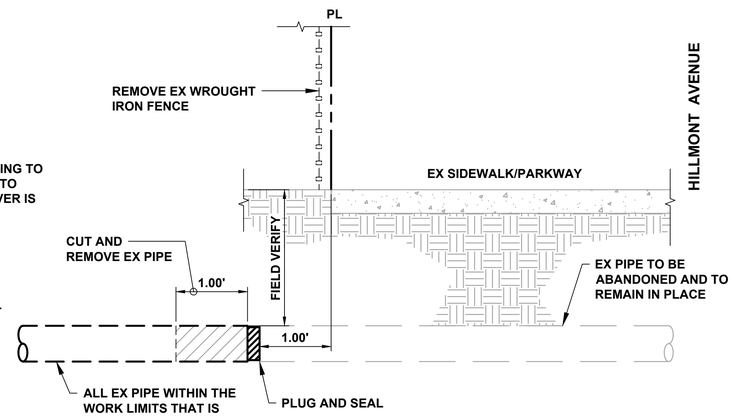


ELECTRICAL SERVICE DEMOLITION (D -)
SCALE: N.T.S.

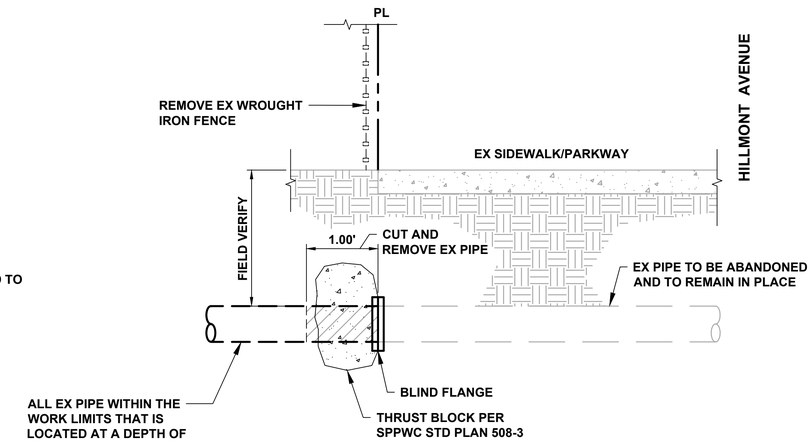


CONTRACTOR TO COORDINATE WITH VENTURA WATER FOR ABANDONMENT

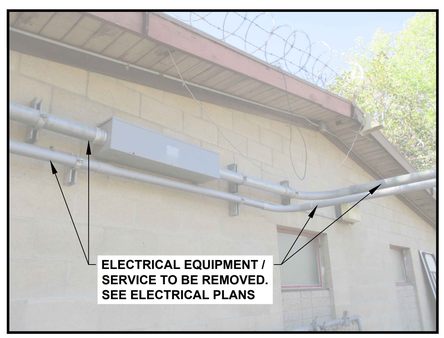
CLEANOUT ABANDONMENT (E -)
SCALE: N.T.S.



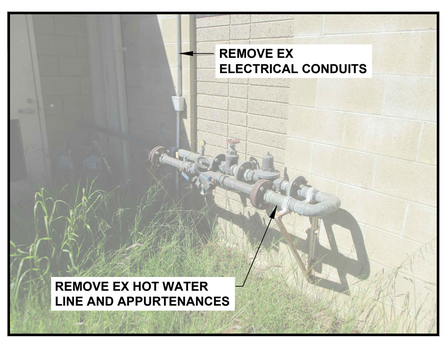
BELOW GROUND PIPE ABANDONMENT (F -)
SCALE: N.T.S.



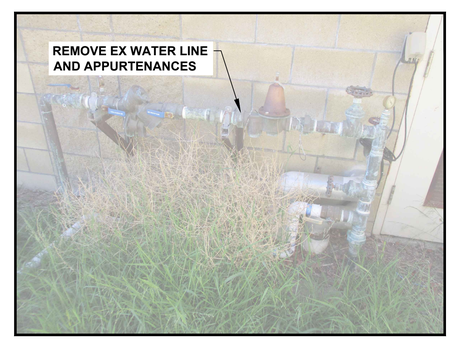
WATER LINE/SERVICE ABANDONMENT (G -)
SCALE: N.T.S.



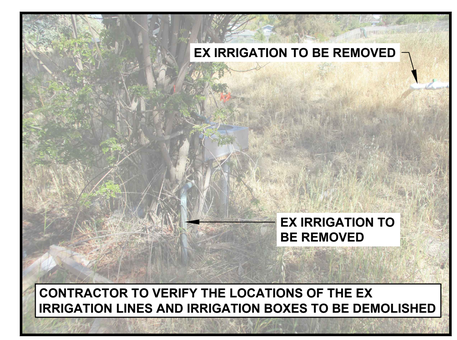
BUILDING ELECTRICAL SERVICE DEMOLITION (H -)
SCALE: N.T.S.



HOT WATER SERVICE DEMOLITION (I -)
SCALE: N.T.S.



WATER SERVICE DEMOLITION (J -)
SCALE: N.T.S.



IRRIGATION DEMOLITION (K -)
SCALE: N.T.S.

811 Know what's below. Call 811 before you dig.

VENTURA COUNTY HEALTH CARE AGENCY

PUBLIC VENTURA COUNTY WORKS

ENGINEERING SERVICES

PREPARED BY:
PHOENIX CIVIL ENGINEERING, INC.
535 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 658-6800

PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER JONATHON M. TURNER No. 74223 Exp. 12/31/22 CIVIL STATE OF CALIFORNIA

PERMIT APPROVAL STAMP

PERMIT NO OSHPD H

NO	REVISION	DATE
	ISSUED FOR BID	05/16/22
△		

PUBLIC WORKS PROJECT MANAGER: DEVI NALLAMALA

CONSULTANT PROJECT MANAGER: JON TURNER

DRAWN BY	CHECKED BY
ADS	JMT
CONSULTANT JOB NO: MVCW20-14	DATE: 04/23/2021

PROJECT TITLE AND ADDRESS

VENTURA COUNTY MEDICAL CENTER COLSTON BLDG. DEMOLITION

375 HILLMONT AVE
VENTURA, CA 93003

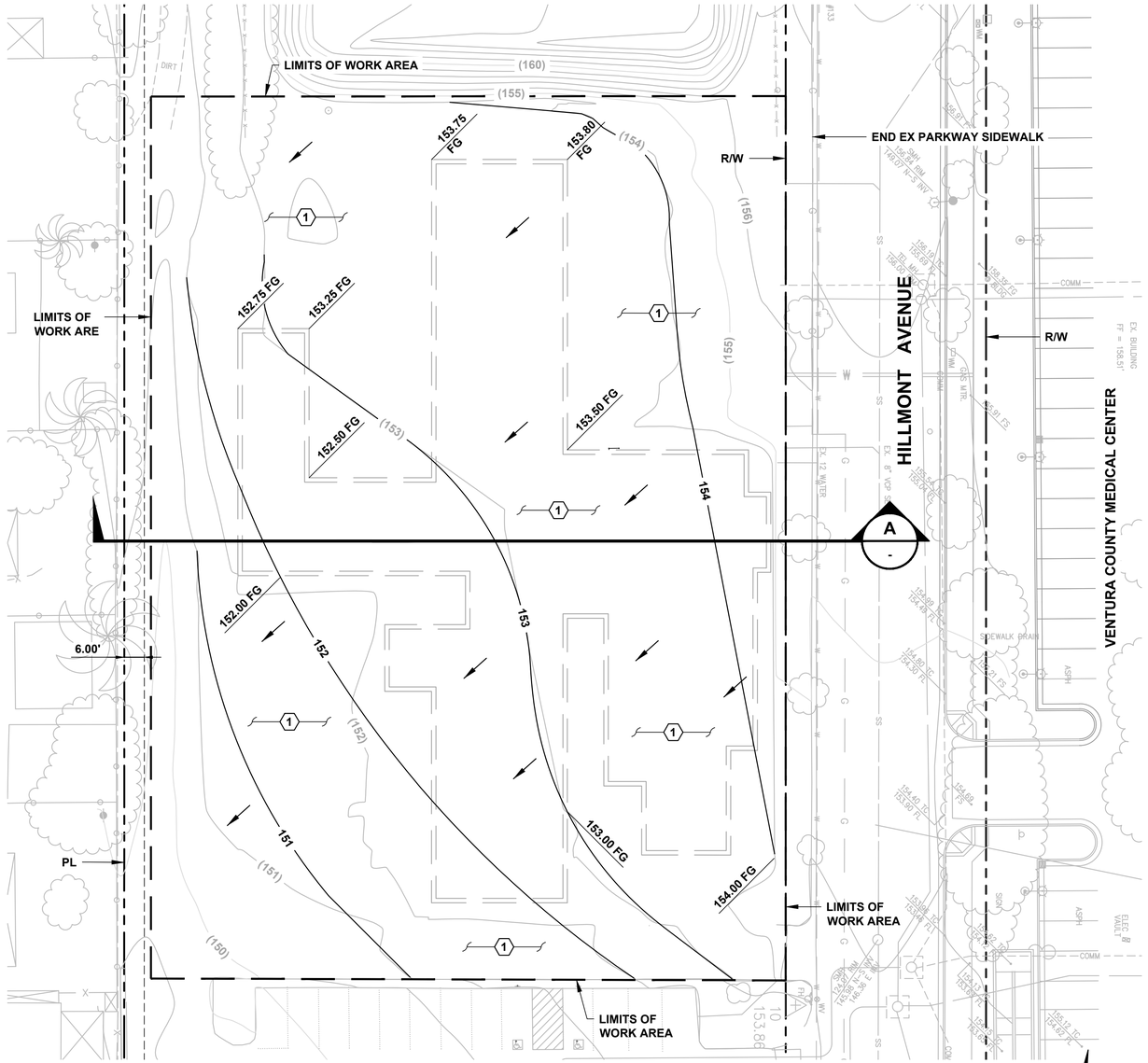
COUNTY SPEC NUMBER: CP22-02

COUNTY PROJECT NUMBER: P6T20011

COUNTY DWG NO | SHEET 4 OF 8

SHEET TITLE: PHOTOS AND DETAILS SHEET

SHEET NO: C-002



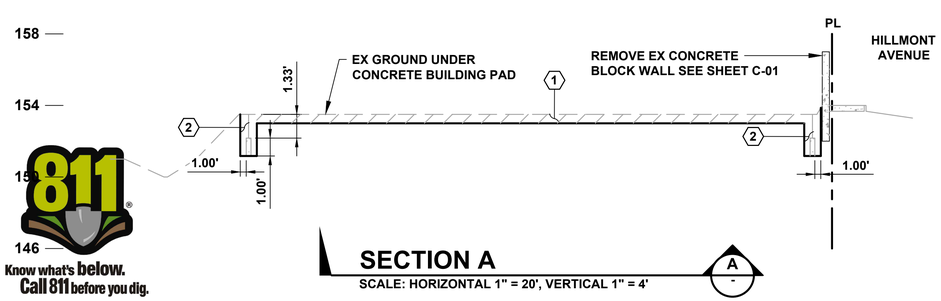
375 HILLMONT ROUGH GRADING PLAN

SCALE: 1" = 20'

SCALE: 1" = 20'

20' 10' 0 20' 40'

SCALE IN FEET



SECTION A

SCALE: HORIZONTAL 1" = 20', VERTICAL 1" = 4'

Know what's below. Call 811 before you dig.

CONSTRUCTION NOTES:

1. REMOVE ALL ORGANIC MATERIALS, SCARIFY SITE 6-INCHES, MOISTURE CONDITION AND RECOMPACT TO 85% RELATIVE DENSITY.
2. FILL REMOVED FOOTING VOID WITH NATIVE SOIL MOISTURE CONDITION AND RECOMPACT TO 85% RELATIVE DENSITY.

VENTURA COUNTY HEALTH CARE AGENCY

PUBLIC VENTURA COUNTY WORKS

ENGINEERING SERVICES

PREPARED BY:
PHOENIX CIVIL ENGINEERING, INC.
535 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 658-6800

PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER JONATHON M. TURNER CIVIL STATE OF CALIFORNIA

PERMIT APPROVAL STAMP

PERMIT NO OSHPD H

NO	REVISION	DATE
	ISSUED FOR BID	05/16/22
△		

PUBLIC WORKS PROJECT MANAGER: DEVI NALLAMALA

CONSULTANT PROJECT MANAGER: JON TURNER

DRAWN BY: ADS | CHECKED BY: JMT

CONSULTANT JOB NO: MVCW20-14 | DATE: 04/23/2021

PROJECT TITLE AND ADDRESS

VENTURA COUNTY MEDICAL CENTER COLSTON BLDG. DEMOLITION

375 HILLMONT AVE
VENTURA, CA 93003

COUNTY SPEC NUMBER: CP22-02

COUNTY PROJECT NUMBER: P6T20011

COUNTY DWG NO | SHEET 5 OF 8

SHEET TITLE: ROUGH GRADING PLAN

SHEET NO: C-003

X	DESIGNATION FOR OCPD OR DISCONNECTION EQUIPMENT BY CIRCUIT NUMBER OR LETTER. M=MAIN, B=BRANCH CIRCUIT DEVICE, F=FEEDER.
B; AF, AT, 3P	MOLDED CASE CIRCUIT BREAKER. AF=FRAME SIZE, AT=TRIP RATING, P=NUMBER OF POLES, A=AMP RATING.
B; AF, AT, 3P	MEDIUM VOLTAGE DRAWOUT AIR CIRCUIT BREAKER. A=FRAME RATING IN AMPS, P=NUMBER OF POLES.
X; A, 3P, 52	MEDIUM VOLTAGE DRAWOUT VACUUM CIRCUIT BREAKER. A=FRAME RATING IN AMPS, P=NUMBER OF POLES.
X; AS, 3P, A	MEDIUM VOLTAGE OIL FUSED CUTOUT SWITCH. AS=SWITCH RATING IN AMPS, P=NUMBER OF POLES A=FUSE RATING.
GFP	GROUND FAULT PROTECTION
ST	120 VOLT SHUNT TRIP OPERATOR.
RM	REVENUE METER.
B; AS, 3P, AF	FUSED SWITCH WITH RATINGS AS INDICATED.
T; KVA	TRANSFORMER WITH PRIMARY AND SECONDARY VOLTAGES, PHASES, AND KVA RATING AS INDICATED.
AM	AMMETER.
AS	AMMETER TRANSFER SWITCH.
VM	VOLTMETER.
VS	VOLTMETER TRANSFER SWITCH.
X/X; (3)	PROTECTIVE RELAY DEVICE. NUMBER INDICATES ANSI DEVICE DESCRIPTION. PARENTHESES INDICATE QUANTITY OF DEVICES UON.
:5; (3)	CURRENT TRANSFORMER WITH RATIO AS INDICATED AND QUANTITY IN PARENTHESES.
(3); :5	FUSED POTENTIAL TRANSFORMER WITH RATIO AS INDICATED AND QUANTITY IN PARENTHESES.
	UTILITY COMPANY POWER SOURCE
	MEDIUM VOLTAGE GENERATOR.
NGR	MEDIUM VOLTAGE NEUTRAL GROUND RESISTOR.
	SPLICE POINT.
	DOTTED LINE INDICATES EQUIPMENT TO BE REMOVED UON.

FROM DBB — 1 / 40 / E0.4 — INDICATES CONDUIT & CONDUCTORS NO. 1 COMING FROM DBB. SEE DETAIL 40 ON SHEET E0.4.

TO DPA — 1 / 40 / E0.5 — INDICATES CONDUIT & CONDUCTORS NO. 1 GOING TO DPA. SEE DETAIL 40 ON SHEET E0.5.

ARROW POINTS IN DIRECTION OF LOAD.

16 SINGLE LINE DIAGRAM SYMBOL LIST

	3/4"C. 2-8AWG & 1-8AWGG
A-1,3	CONDUIT HOME RUN WITH 3-12AWG & 1-12AWGG TO PANEL "A", CIRCUITS 1 AND 3.
	CONDUIT RUN CONCEALED IN OR ABOVE CEILING, OR IN WALLS.
	CONDUIT RUN IN OR BELOW FLOOR, OR BELOW GRADE.
	CONDUIT RUN EXPOSED.
	CONDUIT RISER DOWN.
	CONDUIT RISER UP.
	CONDUIT RUN STUBBED OUT, MARKED AND CAPPED.
	CONDUIT RUN CONTINUATION.
EX	EXISTING SYSTEM CONDUIT.
	DOTTED LINE INDICATES ELECTRICAL DEMOLITION WORK.
	FLEXIBLE CONDUIT.
	ELECTRICAL EQUIPMENT CONNECTION. VERIFY ROUGH-IN REQUIREMENTS FOR EACH PIECE OF EQUIPMENT.
	EXISTING CONDUIT TO BE INTERCEPTED AND EXTENDED WITH NEW CONDUIT. EXACT LOCATION OF INTERCEPTION SHALL BE DETERMINED IN THE FIELD. REMOVE EXISTING CONDUCTORS AND PROVIDE NEW CONDUCTORS AS INDICATED.
J	JUNCTION BOX WITH BLANK FACEPLATE FLUSH WALL MOUNTED AT +18"UON.
	DUPLEX GFCI RECEPTACLE IN SURFACE CAST OUTLET BOX WALL MOUNTED AT +18"UON.
	LIGHTING OUTLET OR LUMINAIRE CONNECTED TO AN EMERGENCY CIRCUIT.
	LIGHTING STANDARD WITH 1 OR 2 SEMI–SPHERICAL LUMINAIRES AS INDICATED.
A	LUMINAIRE DESIGNATION. LETTER INDICATES LUMINAIRE TYPE.
M	FIRE ALARM SYSTEM MONITOR MODULE IN FLUSH CEILING OUTLET BOX UON.
	FLOW SWITCH FURNISHED AND INSTALLED UNDER ANOTHER DIVISION UON.
	TAMPER SWITCH FURNISHED AND INSTALLED UNDER ANOTHER DIVISION UON.

Electrical Abbreviations

AWGG	AMERICAN WIRE GAGE GROUND CONDUCTOR, SIZE AS INDICATED.	NTS	NOT TO SCALE
CO	CONDUIT ONLY WITH NYLON PULLROPE	SCCA	SHORT CIRCUIT CURRENT AVAILABLE
EX	EXISTING	TSP	TWISTED SHIELDED PAIR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UON	UNLESS OTHERWISE NOTED

7 PLAN SYMBOL LIST

THE NUMBERS IN THE LOAD COLUMN OF THE PANEL SCHEDULES REFER TO THE CATEGORY NUMBERS IDENTIFIED BELOW. DEMAND FACTORS ARE APPLIED BASED ON THE 2019 CALIFORNIA ELECTRICAL CODE SECTION LISTED FOR EACH CATEGORY. THE PANEL SCHEDULE CALCULATED LOAD IS DETERMINED BY SUBTRACTING FROM THE CONNECTED LOAD THE AMOUNT ALLOWED BY CATEGORIES 2, 4, 7, AND 8. THE CONDUCTOR LOAD IS DETERMINED BY ADDING THE AMOUNTS REQUIRED BY CATEGORIES 1, 3, AND 6 TO THE CALCULATED LOAD.

1. CONTINUOUS LOAD (CEC 220-14(A)(D))
2. RECEPTACLE LOAD (CEC 220-14I)
3. MOTOR LOAD (CEC 220-14C)
4. KITCHEN EQUIPMENT LOAD (CEC 220-56)
5. CONNECTED LOAD (NON-CONTINUOUS LOAD WITH NO DEMAND FACTOR)
6. METERED LOAD (CEC 220-87)
7. ELEVATOR LOAD (CEC 620-14)
8. X-RAY EQUIPMENT DEMAND (CEC 517-73)

8 PANEL SCHEDULE LOAD CATEGORY DESCRIPTIONS

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JOB No. 2103-00
IRJ ENGINEERS, INC.
MECHANICAL & ELECTRICAL ENGINEERS
4517 MARKET STREET, SUITE 1B VENTURA, CALIFORNIA 93003
(805) 642-2355

PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER — JACK V. IVERS — No. 12602 — 9/23 — ELECTRICAL — STATE OF CALIFORNIA

PERMIT APPROVAL STAMP

PERMIT NO

NO	REVISION	DATE
	ISSUED FOR BID	05/16/22
△		

PUBLIC WORKS PROJECT MANAGER: DEVI NALLAMALA

CONSULTANT PROJECT MANAGER: JON TURNER

DRAWN BY	CHECKED BY
JEJ	JVI
CONSULTANT JOB NO: MVCW20-14	DATE: 03/26/2021

PROJECT TITLE AND ADDRESS

VENTURA COUNTY MEDICAL CENTER COLSTON BLDG. DEMOLITION

300 HILLMONT AVE
VENTURA, CA 93003

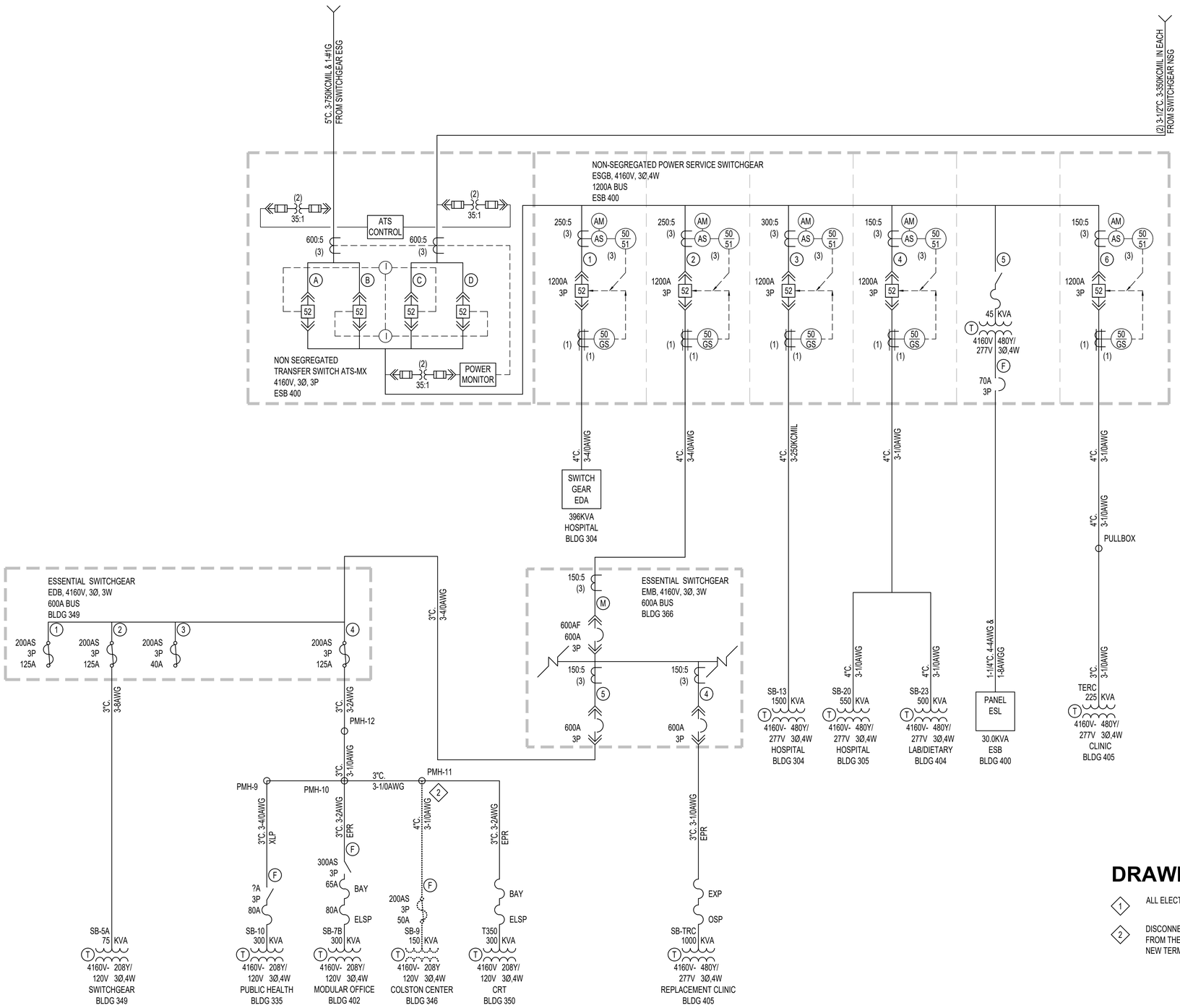
COUNTY SPEC NUMBER: CP22-02

COUNTY PROJECT NUMBER: P6T20011

COUNTY DWG NO | SHEET 6 OF 8

SHEET TITLE: SYMBOL LISTS, NOTES

SHEET NO: E-001



24 PARTIAL 4,160V SINGLE LINE DIAGRAM

NTS

DRAWING NOTES

1. ALL ELECTRICAL WORK SHOWN IS EXISTING UON.
2. DISCONNECT AND REMOVE THE EXISTING FEEDER CONDUCTORS TO SB-9 FROM THE MULTI POINT LOAD BREAK JUNCTION WITHIN PMH-11. INSTALL NEW TERMINATION CAPS ON THE SPARE CONNECTION POINTS.

VENTURA COUNTY HEALTH CARE AGENCY

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PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER JACK V. VIERRA No. 12602 9/23 ELECTRICAL STATE OF CALIFORNIA

PERMIT APPROVAL STAMP

PERMIT NO

NO	REVISION	DATE
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△		

PUBLIC WORKS PROJECT MANAGER: DEVI NALLAMALA

CONSULTANT PROJECT MANAGER: JON TURNER

DRAWN BY	CHECKED BY
JEJ	JVI

CONSULTANT JOB NO	DATE
MVCW20-14	03/26/2021

PROJECT TITLE AND ADDRESS

VENTURA COUNTY MEDICAL CENTER COLSTON BLDG. DEMOLITION

300 HILLMONT AVE
VENTURA, CA 93003

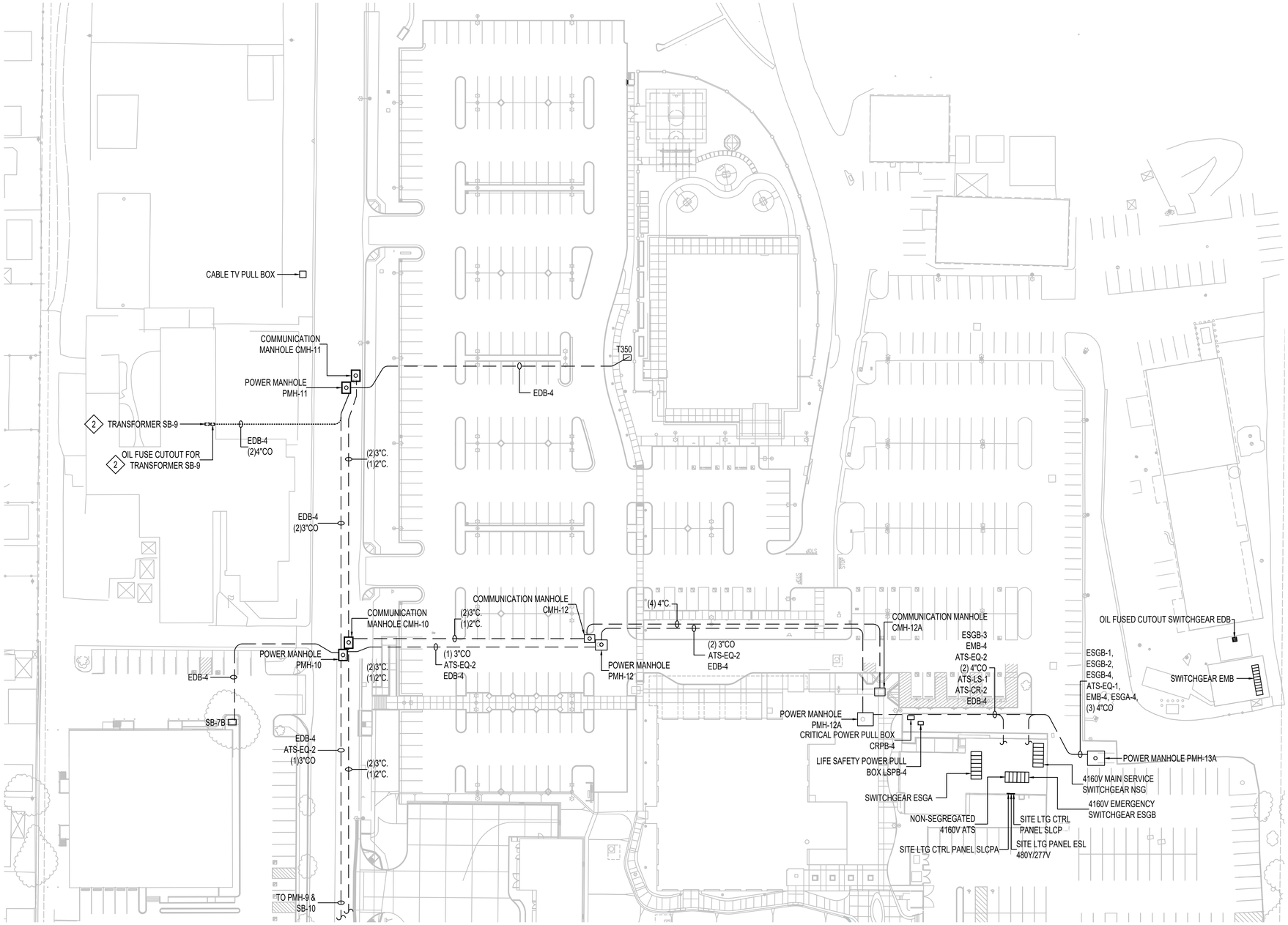
COUNTY SPEC NUMBER: CP22-02

COUNTY PROJECT NUMBER: P6T20011

COUNTY DWG NO | SHEET 7 OF 8

SHEET TITLE: PARTIAL 4,160V SINGLE LINE DIAGRAM

SHEET NO: E-002



DRAWING NOTES

1. ALL ELECTRICAL WORK SHOWN IS EXISTING UON.
2. DISCONNECT EXISTING DISTRIBUTION EQUIPMENT TO ALLOW DEMOLITION OF THE EXISTING BUILDING.

24 PARTIAL SITE ELECTRICAL PLAN

SCALE 1" = 40' - 0"

40' 20' 0 80'
30' 10' 40'

N

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CONSULTANT JOB NO: MVCW20-14 | DATE: 03/26/2021

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300 HILLMONT AVE
VENTURA, CA 93003

COUNTY SPEC NUMBER: CP22-02

COUNTY PROJECT NUMBER: P6T20011

COUNTY DWG NO | SHEET 8 OF 8

SHEET TITLE: PARTIAL SITE ELECTRICAL PLAN

SHEET NO: E-003