

PROJECT MANUAL

**142 W. ALISAL ST, SALINAS, CA
OLD JAIL-ROOF REPLACEMENT AND
LIMITED WEATHERIZATION**

**PROJECT NO. 8820
BID PACKAGE NO. 10362**

July 10, 2012

**County of Monterey
Department of Public Works
168 W Alisal St FL2 Salinas CA 93901
Phone (831) 755-4800**

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PROJECT CONTACTS

OWNER

COUNTY OF MONTEREY

DEPARTMENT OF PUBLIC WORKS

c/o FACILITIES DIVISION

ATTN: PROJECT MANAGER, DAVE PRATT

855 E LAUREL DR BLDG 'C'

SALINAS, CA 93905

TELEPHONE: (831) 755-4982 FACSIMILE: (831) 755-4688

E-MAIL: prattdw@co.monterey.ca.us

ARCHITECT OF RECORD:

SKYLINE ENGINEERING, INC.

ATTN: BRYAN SCHALESKY

8100 WILDHORSE ROAD

SALINAS, CA 93907

TELEPHONE: (831) 663-6188 FACSIMILE: (831) 663-6187

E-mail: bryan@skylineengineering.com

ENVIRONMENTAL CONSULTANT

M3 ENVIRONMENTAL CONSULTING, LLC

ATTN: LINDA ARCEO

9821 LARKSPUR LANE, SUITE 100

MONTEREY, CA 93940

TELEPHONE (831)649-4623 FACSIMILE: (831)649-4624

E-mail: linda@m3environmental.com

SIGNATURE PAGE

**142 W. ALISAL ST, SALINAS, CA
OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION**

**PROJECT NO. 8820
BID PACKAGE NO. 10362**

The provisions contained herein have been prepared and reviewed by the following:

DEPARTMENT OF PUBLIC WORKS:

**CLIENT DEPARTMENT:
DEPARTMENT OF PUBLIC WORKS**

**DAVE PRATT
Management Analyst III
Project Manager**

**PAUL H. GREENWAY, P.E.
Acting Director**

**RICK P. SAUERWEIN, P.E.
Architectural Services Manager**

**COUNTY COUNSEL:
Reviewed as to form and legality**

AUDITOR-CONTROLLER:

**JESSE J. AVILA
Deputy County Counsel**

**GARY GIBONEY
Chief Deputy Auditor-Controller**

**RISK MANAGEMENT:
Approved as to indemnity/insurance
language.**

**STEVEN F. MAUCK
Risk Manager**

NOTICE TO CONTRACTORS
INVITING FORMAL BIDS & ADVISING OF MANDATORY BIDDERS' MEETING
COUNTY OF MONTEREY DEPARTMENT OF PUBLIC WORKS
PROJECT NO. 8820: 142 W. ALISAL ST, SALINAS CA OLD JAIL ROOF REPLACEMENT &
LIMITED WEATHERIZATION BID PACKAGE NO. 10362

The County of Monterey (County) invites qualified contractors to submit sealed bids which must be received and date-and-time stamped in the Office of the Clerk of the Board of Supervisors/ 168 West Alisal St., FL1/Salinas CA 93901, **no later than 2:00 p.m. on August 9, 2012**, at which time bids will be opened and publicly read aloud by the Contracts/Purchasing Agent in Board Conference Room 1032.

A MANDATORY BIDDERS' MEETING is scheduled for July 26, 2012, at 11 a.m., front steps, 142 W. Alisal St, Salinas CA 93901.

Bidder shall possess a valid Class B Contractor's License at time of contract award. Bid shall be in accordance with the drawings, plans, specifications, and subject to all contract documents prepared by County, and shall be submitted on Bid Form prescribed by County including the required Bidder's Bond. County reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding. No bidder may withdraw his bid for a period of sixty (60) days after the opening of bids without County's written consent.

Scope for Base Bid consists, in general: a new roof system, re-caulking of four distinctive arched windows and repair of front concrete steps, at Administrative Wing; and removal of exercise yard enclosure on facility's west side. Scope for Additive Alternate Bids consists of re-roofing of adjacent roof decks and placement of a temporary roof system over the surface deck of the former exercise yard. Lowest bidder will be determined for project by adding Base Bid plus Additive Alternates #1, #2, and #3.

Interested parties may examine all contract documents at Department of Public Works (DPW) office/168 West Alisal St. FL2/Salinas CA 93901/(831)755-4748. Alternately, parties can contact DPW to obtain printed copies or view and/or download documents directly for free from the Monterey County website project page: <http://www.co.monterey.ca.us/publicworks/bids.htm>. Parties must register before they can view/download documents.

Prevailing per diem wage rates are on file and shall be made available to any interested party on request in DPW office listed above. It is mandatory upon the Contractor to whom the contract is awarded, and upon any subcontractor under him, to pay not less than said specified rates to all workers employed by them in the execution of the contract.

A Bidder's Bond issued by an admitted corporate surety company in an amount equal to at least ten percent of the total amount bid must accompany the bid. A blank Bidder's Bond form is attached to the project manual. For the selected contractor, a Payment Bond and Performance Bond, each in the amount of 100% of the Contract, are required. Pursuant to Public Contract Code section 22300, Contractor may substitute securities for any monies withheld by County to ensure performance under the contract. Bidders must comply with the provisions of Monterey County Code Section 5.08.120, requiring a good-faith effort to hire qualified individuals who are residents of the Monterey Bay Area as defined.

Date: July 10, 2012 Paul H. Greenway, P.E., Acting Director of Public Works, Monterey County CA

INFORMATION FOR BIDDERS

**Project Name:
142 W. ALISAL ST, SALINAS, CA
OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION**

**PROJECT NO. 8820
BID PACKAGE NO. 10362**

1. Invitation to Submit Bids

The County of Monterey invites bids to be submitted at such time and place as is stated in the Notice to Contractors Inviting Formal Bids. This "Information to Bidders" is intended to assist bidders in the preparation of their bids. If there is any inconsistency between the terms herein and any of the other contract documents, the terms in the other contract documents shall prevail.

2. Examination of Site, Bidding and Contract Documents

The project manual, specifications, drawings, and other contract documents may be examined at the Department of Public Works' office at 168 West Alisal St. FL2/Salinas CA 93901/(831)755-4748. Alternately, the Department can refer interested parties to a printing service where printed copies of these items may be obtained. Additionally, the items may be viewed, downloaded and printed **for free** directly from the Monterey County website project page: <http://www.co.monterey.ca.us/publicworks/bids.htm>. Planholders must register before they can view or download the documents. Documents may also be available to view at builders' exchanges listed on the same project page or members of Ebidboard can access materials directly from its website.

Each bidder shall visit the site of the proposed work and become fully acquainted with the conditions relating to the construction and labor in order to understand fully the facilities, difficulties, and restrictions attending the execution of the work under the contract. Bidders shall thoroughly examine and be familiar with the plans, specifications, working details, and existing conditions. The failure or omission of any bidder to receive or examine any contract documents, form, instrument, addendum, or other document or to visit the site and become acquainted with conditions there existing shall in no way relieve such bidder from obligations with respect to such bid or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this section.

3. Mandatory Bidder's Meeting

If a mandatory bidders' meeting is required in the Notice to Contractors Inviting Formal Bids, then a qualified representative of the bidder's firm must attend at the stated time and place. Failure to attend will be cause for rejection of the bid. Any bid received from a bidder who did not fully attend the mandatory bidders' conference at the stated time and place will be returned unopened.

A MANDATORY BIDDERS' MEETING IS SCHEDULED. *The MANDATORY BIDDERS' MEETING will be held on Thursday, July 26, 2012, at 11 a.m., front steps, at 142 W. Alisal St, Salinas CA 93901.*

4. Contractor's License

Each bidder must be licensed to perform the project in accordance with the provisions of the Contractors' State Licensing Law, Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code, and in accordance with the Notice to Contractors Inviting Formal Bids. The Contractor's license number and expiration date of the license shall appear on the bid. The classification of the Contractor's License required for this project is "B."

5. Preparation of Bid Form

All bids must be submitted on the prescribed form. All blanks in the bid form must be appropriately filled in, and all prices must be stated in both words and figures, with the lump sum for which the bid is made. All bids must be submitted in sealed envelopes bearing on the outside the bidder's name and address, the name of the project, the bid date and time, and the bid package number for which the bid is submitted. It is the sole responsibility of the bidder to see that the bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.

6. Erasures

The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the person or persons signing the bid, in the named person's own handwriting.

7. Modifications

Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the contract documents may result in the County's rejection of the bid as not being responsive to the invitation to bid. No oral or telephonic modification of any bid submitted will be considered. A telegraphic or telefax modification may be considered.

8. Signature

The bid must be signed in the name of the bidder and must bear the signature in longhand of the person or persons duly authorized to sign the bid. An original signature is required.

9. Interpretation of Plans and Documents

If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other contract documents, or finds discrepancies in or omis-

sions from the plans and specifications, he may submit to the County a written request for an interpretation or correction thereof. The person submitting the request shall be responsible for its prompt delivery. Any interpretation or correction of the contract documents will be made only by official project Q&A (questions/answers) or addendum duly issued, and a copy of such will be posted on the Monterey County website, Department of Public Works' project page [www.co.monterey.ca.us/publicworks]. No oral interpretation of any provision in the contract documents will be made.

10. Bidding Questions

All questions regarding the project during the bidding process must be made in writing to the attention of the designated project bidding coordinator via E-mail, postal mail, or via facsimile (fax). Ebidboard members can also post their questions directly on the project through Ebidboard.com. Contact information is listed on the County of Monterey website, Department of Public Works' project page [www.co.monterey.ca.us/publicworks]. No telephone or verbal questions will be accepted. **QUESTIONS RECEIVED AFTER Tuesday, July 31, 2012, 2:00 p.m. WILL NOT BE ACCEPTED.** Answers to all questions and any addendum regarding the project will be posted on the County of Monterey Website, Department of Public Works' project page [www.co.monterey.ca.us/publicworks/bids.htm, *select bid openings then project name*].

11. Bid Security

Each bid shall be accompanied by bidder's security in the form of cash, a certified or cashier's check payable to the County, or a satisfactory bid bond in the form included in this bid book (Division 00440) in favor of the County executed by the bidder as principal and a satisfactory corporate surety authorized to do business in the State of California as an admitted surety insurer, in an amount not less than ten percent (10%) of the total bid amount. The security shall be given as a guarantee that, if the contract is awarded to the bidder, the bidder will execute the contract, provide any required insurance certificates, and provide any payment and performance bonds required by the contract within ten (10) workdays after the bidder receives a Letter of Intent to Award. After ten (10) workdays, if the proper bond and insurance documents are not submitted by the low bidder, the County has the right to determine the low bidder non-responsive and contact the second lowest bidder.

12. Listing Subcontractors

Each bidder shall submit with the sealed bid a list of the proposed subcontractors on this project as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code section 4100, et seq.). Forms for this purpose are furnished with the contract and bid documents. This includes all subcontractors performing work in an amount in excess of one-half of 1 percent of the prime contractor's total bid.

13. Prevailing Wage.

Attention is directed to Article 25 of the General Conditions. The Director of the Department of

Industrial Relations has determined the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft or type of worker needed to execute the contract. Copies of the prevailing rate of per diem wages are on file and shall be made available to any interested party on request in the Resource Management Agency – Department of Public Works’ Office located at 168 West Alisal Street FL2, Salinas CA 93901. It shall be mandatory upon the Contractor to whom the contract is awarded, and upon any subcontractor under him, to pay not less than said specified rates to all workers employed by them in the execution of the contract.

14. Workers' Compensation Certificate.

In accordance with the provisions of Section 3700 of the Labor Code, Contractor shall secure the payment of workers' compensation to their employees. The following certificate, which such form is included as part of the contract documents, shall accompany each bid:

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.

15. Good-Faith Effort to Hire Monterey Bay Area Residents

Bidders are required to complete, execute, and submit with their sealed bid a certification form relating to compliance with Section 5.08.120 which is furnished with the bid documents. Attention is directed to Part VI, Article 27, Section 27.10 of the General Conditions describing section 5.08.120 in detail. Contractors and subcontractors are referred to the provisions of Section 5.08.120 of the Monterey County Code and the rules, regulations, and procedures adopted to implement Section 5.08.120, a copy of which are on file with the County department administering the contract, with the County's Contracts/Purchasing Agent, and with the County's Equal Opportunity Officer. Section 5.08.120 may also be viewed online at <http://library.municode.com/index.aspx?clientId=16111>.

16. Bidders Interested in More Than One Bid

No person, firm, or corporation shall be allowed to make, or file, or be interested in more than one bid for the same work unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a sub-proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders or making a prime proposal.

17. Withdrawal of Bids

Any bidder may withdraw his or her bid either personally, by written request, or telefaxed request at any time prior to the scheduled closing time for receipt of bids.

18. Evidence of Responsibility

Upon the request of the County, a bidder whose bid is under consideration for the award of the contract shall submit promptly to the County satisfactory evidence showing the bidder's financial resources, construction experience, and organization available for the performance of the contract and upon written request shall furnish the County a complete copy of its estimate and all appropriate backup information and supporting documents. The County may utilize this information as a basis for determining that a contractor is not responsible and therefore award the contract to the next lowest responsible bidder.

19. Early Completion of Project.

If, as an express or implied condition of his bid, a bidder plans to complete the project before the completion date specified in the contract documents and the amounts bid for the work called for are dependent upon such early completion, the bidder must submit with his bid a preliminary work progress schedule in sufficient detail to permit the County of Monterey or its Architect to determine that the bidder's preliminary schedule presents a reasonable and practicable plan for performance.

- (1) The preliminary schedule shall be the bidder's proposed working schedule to plan, organize, and execute the work, record and report actual performance and progress, and show how the general contractor plans to complete all remaining work as of the end of each progress report period.
- (2) The preliminary schedule shall be in the form of an activity on arrow- oriented (*I-J format*) network diagram (Critical Path Method) and the principles and definition of the terms used shall be as set forth in the Associated General Contractors of America (AGC) publication.
- (3) Failure to include a detailed preliminary work progress schedule with the bidder's bid shall be conclusively deemed to constitute acceptance of the County's completion date as specified in the contract documents, and the bidder shall not thereafter be entitled to damages for any delays based on an early completion date proposed by the bidder.
- (4) Bidder who submits with his bid a preliminary work schedule which either (a) lacks sufficient detail to permit the County to determine that the bidder's preliminary schedule presents a reasonable and practicable plan for performance or (b) is determined by the County or its Architect not to be a reasonable and practicable plan for performance shall be deemed non-responsive to the call for bids and his bid shall be rejected.

20. Award of Contract

The County reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bids or in the bidding. The award of the contract, if made by the County, will be to the lowest responsible and responsive bidder. The lowest bidder will be determined for the project by adding its base bid plus additive alternates #1, #2, and #3.

21. Alternate Bids

If alternate bids are called for, the contract will be awarded to the lowest responsible and responsive bidder, who shall be the lowest bid price on the Base Bid contract plus additive alternates #1, #2, and #3.

22. Documents required upon receipt of Letter of Intent to Award

Within ten (10) days after the bidder receives notice a Letter of Intent to Award, the successful bidder shall, in conformity with the contract documents, submit the following documents, including the number of copies required in the Special Conditions:

- (a) Executed Agreement (Division 00500);
- (b) A performance bond and a payment bond, each in an amount equal to one hundred percent of the contract sum, issued and executed by an admitted surety insurer, authorized to transact surety insurance in California (Division 00600 and 00610);
- (c) Insurance certificates showing that the successful bidder has obtained all required insurance coverage including endorsements;
- (d) Such other documents as may be required by the contract documents.

23. Bid Security Return

The bid security shall be returned to the bidders promptly after a decision is made whether to accept a bid or reject all bids, except that if a contract award is to be made, the bid security of three or more of the lowest bidders (the number being at the discretion of the County) will be held for sixty (60) working days after notice of the award is received by the successful bidder or until the successful bidder returns the executed Agreement and posts the required bonds and certificates of insurance, whichever occurs first. If the successful bidder returns the required documents on time, all the remaining bid security will be returned.

24. Forfeiture for Failure to Execute Contract

If the bidder to whom a Letter of Intent to Award is made fails or refuses to execute the contract and post the required bonds and insurance certificates within ten (10) days from the date of receiving the Letter of Intent to Award, the County may declare the bidder's bid security forfeited as liquidated damages caused by the failure of the bidder to enter into the contract, and may award the work to the next lowest responsible and responsive bidder or may call for new bids. If the work is awarded to the next bidder, the County shall retain the remaining bid securities until such time as a new award is completed with the execution of the Agreement and the posting of bonds and certificates. If new bids will be called, all remaining bid security will be promptly returned.

25. Progress Payments and Substitution of Security

Progress payments to the Contractor will be made each calendar month on the basis of ninety five percent (95%) of the value of the work performed. The final payment will be withheld for 35 days after completion of the project. Completion as used herein is defined as the date of acceptance of the Work by the County of Monterey Board of Supervisors. Upon the Contractor's request and agreement to substitute securities for the withheld funds, monies withheld from progress payments by the County to ensure performance under the contract may be released in accordance with Public Contract Code section 22300 and the contract documents.

26. Non-Discrimination

It is the policy of the County that in connection with all work performed under contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, physical disability, mental disability, medical condition (cancer related), sex, sexual orientation, age (over 40) or marital status. The Contractor agrees to comply with all applicable federal, state, and local laws and/or regulations including, but not limited to, the California Fair Employment and Housing Act, Government Code Secs. 12900 et seq., Labor Code Sec. 1735, and Monterey County Code, Title 2, Chapter 2.80. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work by the Contractor.

27. Bid Protests

Who can file a protest?

Any Bidder or any directly affected party who is aggrieved in connection with the solicitation or award of contract (ex. Subcontractor), representatives of the above (ex. Unions) may file a bid protest.

Requirements for Filing a Protest

Bidders who wish to lodge a protest as to the award of the bid must do so before 5 p.m. of the 5th business day following the notice of intent to award the contract. Failure to timely file a written protest shall constitute a waiver of right to protest. Untimely protests will not be accepted or considered. Bid protests must be submitted, in writing, to: MONTEREY COUNTY DEPARTMENT OF PUBLIC WORKS TO THE ATTENTION OF THE PROJECT MANAGER/168 W ALISAL ST FL2/SALINAS CA 93901-2438. Protests may be hand-delivered or sent via facsimile [(831)755-4958], certified postal mail, or E-mail to the attention of the Project Manager at prattdw@co.monterey.ca.us. Bid protests must include the project name and bid number, a complete statement describing the basis for the bid protest, including a detailed statement of all legal and factual grounds for the protest, any documentation supporting the protestor's grounds for the protest, and the form of relief requested and the legal basis for such relief. The party lodging the protest must also include their contact information including mailing address, telephone number, and E-mail address.

If a valid protest is timely filed, the Department shall investigate the bid protest. The protested party shall have three (3) business days to respond to any Department of Public Works requests to provide additional information.

County Response to Protests Received

The Department of Public Works shall respond to the protesting party, in writing, stating its findings. The Director of Public Works shall submit a summary of bid protests received and make a recommendation to the Board of Supervisors regarding the bid protest(s).

BID FORM

MONTEREY COUNTY BOARD OF SUPERVISORS

MAILING ADDRESS	P O BOX 1728 SALINAS CA 93902
PHYSICAL ADDRESS	168 W. ALISAL ST 1 ST FLR SALINAS CA 93901

**142 W. ALISAL ST, SALINAS, CA
OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION**

**PROJECT NO. 8820
BID PACKAGE NO. 10362**

NAME OF BIDDER: _____

BUSINESS ADDRESS: _____

TELEPHONE NUMBER: _____

PLACE OF RESIDENCE: _____

BID FORM

**142 W. ALISAL ST, SALINAS, CA
OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION
PROJECT NO. 8820
BID PACKAGE NO. 10362**

TO: MONTEREY COUNTY BOARD OF SUPERVISORS

1. Pursuant to and in compliance with your Notice to Contractors Inviting Formal Bids and with the other documents relating thereto, the undersigned bidder, having become familiar with the terms of the contract, the local conditions affecting the performance of the contract, the cost of the work at the place where the work is to be done, the project plans and specifications, and the other contract documents, hereby proposes and agrees to perform within the time stipulated and to provide and furnish any and all labor, materials, equipment, transportation, utilities, and services necessary to perform the contract and complete in a workmanlike manner all of the work required in connection with the above project, all in strict conformity with the drawings and specifications and other contract documents, including addenda nos. ____, ____, and ____, for the sum hereinafter stated (in the event of a discrepancy between the words and figures, the amount in words will govern):

BASE BID: PROVIDE WORK AS SPECIFIED IN SECTION 002400 PROCUREMENT SCOPE OF WORK AND AS LISTED ON DRAWINGS A-1 AND A-2:

_____ Dollars
(\$ _____)

ADDITIVE ALTERNATE #1: ADDITIONAL COST TO REPLACE ROOF AT ROOF AREAS 9 AND 10 (REFER TO DRAWING A-2):

_____ Dollars
(\$ _____)

ADDITIVE ALTERNATE #2: ADDITIONAL COST TO REPLACE ROOF AT ROOF AREA 11 (REFER TO DRAWING A-2):

_____ Dollars
(\$ _____)

ADDITIVE ALTERNATE #3: INSTALL TEMPORARY ROOFING AT EXERCISE YARD AS SPECIFIED (REFER TO DRAWING A-2):

_____ Dollars
(\$ _____)

ADDITIVE ALTERNATE #4: INSTALL HEAVY PLASTIC TEMPORARY ROOFING AT EXERCISE YARD. WEIGH DOWN WITH BLOCKS:

_____ Dollars

(\$ _____)

TABLE OF UNIT COSTS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Cost</i>
1	Additional cost for providing deck leveling as specified in section 075400 3.02. Note that contractor shall include 100 square foot of deck leveling in the base bid. This shall be an additive or deductive number.	square foot	\$
2	Concrete deck repair	Square	\$

2. **Determination of lowest responsible bidder** – Determination of lowest bidder will be based upon the sum of the base bid plus additive alternates #1, #2, and #3. The contract will then be awarded to the Bidder submitting the lowest amount so calculated, or else all bids will be rejected. Unit pricing provided by the bidder, if any, shall be incorporated in the Agreement and shall be the basis for calculating any costs involving changes to the work. The County may contract with the successful bidder for all, some, or none of the alternates.

3. The undersigned has checked all above figures carefully and understands that the County of Monterey will not be responsible for any errors and omissions on the part of the undersigned in making this bid.

4. It is understood that the County of Monterey reserves the right to reject any and all bids or waive any informalities or irregularities in any bids or in the bidding.

5. This bid shall remain valid and will not be withdrawn by the undersigned bidder for a period of **sixty (60)** days from the date prescribed for opening of this bid without the written consent of the County of Monterey.

6. Attached hereto are the following:

- a.) List of proposed subcontractors;
- b.) Non-collusion affidavit;
- c.) Workers' compensation certificate;
- d.) Affidavit Concerning Employment of Undocumented Aliens
- e.) Contractor's Certification of Good-Faith Effort to Hire Monterey Bay Area Residents;
- f.) Required bidder's security in an amount not less than 10% of the base bid amount;
- g.) Detailed preliminary work schedule if the bidder plans to complete the project before the completion date specified in the contract documents; and
- h.) Acknowledgment of addenda, if any.

7. If this bid is accepted by the County of Monterey, then the undersigned shall, within ten (10) working days after receipt of the Letter of Intent to Award, execute and deliver to the County of Monterey (a) a contract in the form set forth in the contract documents on which this bid is based, (b) a payment bond for public works, as required by the contract documents, and (c) a performance bond, as similarly required, and (d) an Insurance Certificate, as similarly required. The undersigned will thereafter commence and complete the work within the time required by the contract documents.

8. Notice of acceptance and any requests for additional information shall be addressed to the undersigned at the following address:

PROJECT MANAGER: DAVE PRATT
DEPARTMENT OF PUBLIC WORKS
855 E LAUREL DR, BLDG C
SALINAS CA 93905
TELEPHONE: (831) 755-4982 FACSIMILE: (831) 755-4688

9. The names of all persons interested in the foregoing proposal as principals are as follows:

_____	_____
Name	Title
_____	_____
Name	Title
_____	_____
Name	Title

(IMPORTANT NOTICE: If the bidder or other interested person is a corporation, state the legal name of the corporation, and the names of the president, secretary, treasurer, and manager thereof; if a partnership, state the name of the firm and the names of all the individual partners composing the firm; if the bidder or other interested person is an individual, state the first and last names in full and give all fictitious names under which the individual does business.)

10. By execution of this bid, the undersigned bidder declares that he or she is a contractor licensed in accordance with the Contractors' State License Law, as follows:

Classification: _____

License number: _____

Expiration date: _____

11. In the event the bidder to whom Notice of Intent to Award Contract is given fails or refuses to post the required bonds and insurance and return the executed copies of the agreement form within ten (10) working days from the date of receiving the Notice of Intent to Award Contract, the County may declare the bidder's security forfeited as damages and contract with the second lowest bidder.

12. Pursuant to section 7103.5(b) of the Public Contract Code, in submitting a bid to the County, the bidder offers and agrees that if the bid is accepted, it will assign to the County all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

Dated _____, 2012

Bidder's Business Name _____

By _____

Principal Signature _____

Principal Name (Print) _____

Principal's Title (Print) _____

By _____

Principal Signature _____

Principal Name (Print) _____

Principal Title (Print) _____

(Corporate Seal) _____

NOTE: *If bidder is a corporation, the full legal name of the corporation shall be set forth above together with the signatures of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the full name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his signature shall be placed above.*

LIST OF SUBCONTRACTORS

**142 W. ALISAL ST, SALINAS, CA
OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION**

**PROJECT NO. 8820
BID PACKAGE NO. 10362**

In compliance with the Subletting and Subcontracting Fair Practices Act (Chapter 4 [commencing with section 4100], Part 1, Division 2 of the Public Contract Code) and any amendments thereto, each bidder shall set forth below: (a) the name and the location of the place of business 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 to be performed under this contract 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 one percent of the prime contractor's total bid, and (b) the portion of the work which will be done by each subcontractor under this Act. The prime contractor shall list only one subcontractor for each such portion as is defined by the prime contractor in this bid. The term "portion of work" refers to the type of work.

If a prime contractor fails to specify a subcontractor or if a prime contractor specifies more than one subcontractor for the same portion of the work to be performed under the contract in excess of one-half of one percent of the prime contractor's total bid, he shall be deemed to have agreed that he is fully qualified to perform that portion himself, and that he shall perform that portion himself.

No prime contractor whose bid is accepted shall: (a) substitute any subcontractor, (b) permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by any one other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which his original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act. Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the authority awarding this contract setting forth the facts constituting the emergency or necessity.

Bidder's Business Name

By:

Print Name

Print Title

Bidder's Business Name

NONCOLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
(Public Contract Code Section 7106)

The undersigned declares:

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

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

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

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

Signature: _____

Print Name: _____

CONTRACTOR'S CERTIFICATE AS TO WORKERS' COMPENSATION
(Labor Code section 1861)

Labor Code section 3700 provides, in relevant part:

"Every employer except the state shall secure the payment of compensation in one or more of the following ways:

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

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees."

I certify that 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.

Dated: _____

Bidder's Business Name: _____

By: _____

Print Name: _____

Print Title: _____

AFFIDAVIT CONCERNING EMPLOYMENT OF UNDOCUMENTED ALIENS
TO BE SUBMITTED WITH BID

(Public Contract Code section 6101)

State of California)
) ss.
County of _____)

Public Contract Code section 6101 provides that,

No state agency or department, as defined in [Public Contract Code] Section 10335.7, that is subject to this code, shall award a public works or purchase contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a public works or purchase contract, who has, in the preceding five years, been convicted of violating a state or federal law respecting the employment of undocumented aliens.

_____, being first duly sworn, deposes and says
(1) that he or she is the _____ of _____, the party making
the foregoing bid; and (2) that the party making the foregoing bid has not, within the preceding
five years, been convicted of violating a state or federal law respecting the employment of
undocumented aliens.

Dated: _____

Bidder's Business Name: _____

By: _____

Print Name: _____

Print Title: _____

Subscribed and sworn to me this _____ day of _____ 2012

Notary Public in and for the County of

State of California

My commission expires: _____ . [Notary Stamp]

CONTRACTOR'S CERTIFICATION OF GOOD-FAITH EFFORT TO HIRE
MONTEREY BAY AREA RESIDENTS
(Monterey County Code section 5.08.120)

I certify that I am aware of the provisions of Monterey County Code section 5.08.120. Monterey County Code section 5.08.120 provides, in relevant part:

A. General Provisions. Unless such a provision would conflict with a state or federal law or regulation applicable to a particular contract for public works of improvement, all County contracts for public works of improvement shall contain provisions pursuant to which the contractor promises to make a good-faith effort to hire qualified individuals who are, and have been for at least one (1) year prior to the opening of bids, residents of the Monterey Bay Area in sufficient numbers so that no less than fifty percent (50%) of the contractor's total construction work force, including any subcontractor work force, measured in labor work hours, is comprised of Monterey Bay Area residents.

B. Non-responsive Bidder Declaration; Enforcement. If any contractor submitting a bid for a contract for public works of improvement fails to abide by the good-faith local hiring provisions of this Section, the contractor may be declared by the Board to be a non-responsive bidder for purposes of this Chapter. If a contractor lists in his or her bid a subcontractor who is currently disqualified under the terms of this Section, the Board may declare said contractor to be a non-responsive bidder for purposes of this Chapter. If the Board finds that a contractor to whom a contract for public works of improvement has been awarded has failed to comply with the good-faith hiring provisions of this Section during the performance of the contract, the Board may disqualify the contractor from bidding on any County contract for public works of improvement for a period of one (1) year from the date of the Board's disqualification. A subsequent violation of this Section by a contractor may result in disqualification by the Board for a period of three (3) years from the date of the subsequent disqualification.

C. Binding on Subcontractors. Every contractor entering into a contract for public works of improvement subject to the provisions of this Section shall include in each and every subcontract for work, laborers, or materialmen relating to the project the requirement that the subcontractor promises to make a good-faith effort to hire qualified individuals who are, and have been for at least one (1) year prior to the opening of bids, residents of the Monterey Bay Area. If the Board finds that any subcontractor has failed during the performance of the subcontract to comply with its promise to contractor, the Board may disqualify said subcontractor from submitting or being listed in any bid for any County contract for public works of improvement for a period of one (1) year from the date of the Board's disqualification. A subsequent violation by a subcontractor may result in disqualification by the Board for a period of three (3) years from the date of the subsequent disqualification."

I FURTHER CERTIFY AS FOLLOWS (check the box that applies):

I CERTIFY that at least 50% of the total construction work force on the project, including any subcontractor work force, measured in labor work hours, will be comprised of qualified individuals who to the best of my knowledge are, and have been for at least one (1) year prior to the effective date of the opening of bids, Monterey Bay Area residents. Evidence that I will comply with this requirement is as follows (please use additional pages to provide supporting evidence and/or documentation, as necessary):

I CERTIFY that I promise to make a good-faith effort to hire qualified individuals who to the best of my knowledge are, and have been for at least one (1) year prior to the effective date of the opening of bids, residents of the Monterey Bay Area in sufficient numbers such that no less than fifty percent (50%) of the total construction work force on the project, including any subcontractor work force, measured in labor work hours, will be comprised of Monterey Bay Area residents. Evidence of my promise to make a good-faith effort will be as follows (please use additional pages to provide supporting evidence and/or documentation, as necessary):

I CERTIFY that I do not comply with and am unable to promise to make a good-faith effort to comply with the good-faith local hiring provisions set forth in Monterey County Code section 5.08.120.

I declare under penalty of perjury under the laws of the State of California that the foregoing certification is true and correct. Executed on (date) _____
at (city/state) _____.

Bidder's business name

Signature: _____

Print Name: _____

Title: _____

BID BOND

(Public Contract Code Section 20129)

WHEREAS the Principal has submitted the accompanying bid dated _____, to the County of Monterey, for the following project: **142 W. ALISAL ST, SALINAS, CA-OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION, PROJECT NO. 8820, BID PACKAGE NO. 10362**; and

WHEREAS, Principal, as bidder, is required to furnish a bond executed by an admitted surety in connection with said bid, to secure the timely execution of the contract and delivery of bonds and insurance certificates, in the event that the contract is awarded to the Principal.

NOW, THEREFORE, we _____ as Principal, and _____ as Surety, are held and firmly bound unto the County of Monterey, a political subdivision of the State of California (hereinafter called "County"), in the penal sum of _____ Dollars (\$_____), which sum is not less than ten percent (10%) of the base bid amount including all alternates of the Principal submitted to the said County for the above-described project, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

If the Principal is awarded the contract and, within the time and manner required under the contract documents for the above-described project, after the prescribed forms are presented to him for signature, (1) enters into a written contract in the prescribed form, in accordance with the bid, (2) files such insurance certificates with the County as may be required by said contract documents, and (3) files a performance bond and a payment bond with the County, in conformity with said contract documents, then this obligation shall be null and void; otherwise, it shall remain in full force.

Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract on the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of said contract or the call for bids, or to the work, or to the specifications.

If the County brings suit upon this bond and judgment is recovered, the Surety shall pay all litigation expenses incurred by the County in such suit, including attorneys' fees, court costs, expert witness fees and investigation expenses.

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

(Corporate Seal)

Principal

By_____

Title_____

(Corporate Seal)

Surety

By_____

Title_____

Attach: 1) A Copy of authorization for signature for Principal, and 2) An original or certified copy of unrevoked appointment, Power of Attorney, Attorney-in-Fact Certificate bylaws or other instrument entitling or authorizing person executing bond on behalf of Surety to do so.

AGREEMENT

THIS AGREEMENT is made by and between the COUNTY OF MONTEREY, a political subdivision of the State of California, hereinafter called "COUNTY," and _____, hereinafter called "CONTRACTOR." For reference purposes, the date of this Agreement is _____.

THE COUNTY AND THE CONTRACTOR hereby agree as follows:

ARTICLE 1. SCOPE OF WORK.

The CONTRACTOR shall, within the time stipulated, perform the contract as herein defined and shall furnish all work, labor, equipment, transportation, material, and services to construct and complete in a good, expeditious, workmanlike, and substantial manner, the project: **142 W. ALISAL ST, SALINAS, CA-OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION, PROJECT NO. 8820, BID PACKAGE NO. 10362.**

All work shall be completed in strict conformance with the plans, specifications, and working details prepared by SKYLINE ENGINEERING, INC. and the provisions of the documents listed in Article 6 below, and to the satisfaction of the COUNTY.

ARTICLE 2. TIME FOR START AND COMPLETION.

CONTRACTOR shall commence the work on the starting date established in the Notice to Proceed and shall complete the bid work within the overall project duration of THIRTY (30) days as it pertains to CONTRACTOR's scope of work as defined by the contract documents. Additionally, CONTRACTOR shall coordinate their work with all other contractors whose work is affected by the scope of work defined in this Agreement. CONTRACTOR expressly agrees to provide appropriate labor, material and equipment in response to adjustments in the Project Schedule made by the Monterey County Director of Public Works or his/her designee during the course of the project in order to maintain the required progress.

ARTICLE 3. CONTRACT PRICE.

The COUNTY shall pay the CONTRACTOR as full consideration for the performance of the contract, subject to any additions or deductions as provided in the contract documents, the contract sum of _____, (\$_____).

ARTICLE 4. LIQUIDATED DAMAGES.

THE PARTIES AGREE THAT IN CASE ALL THE WORK CALLED FOR UNDER THE CONTRACT IN ALL PARTS AND REQUIREMENTS IS NOT COMPLETED WITHIN THE TIME SPECIFIED IN THE CONTRACT DOCUMENTS, DAMAGE WILL BE SUSTAINED BY THE COUNTY, AND THAT IT IS AND WILL BE IMPRACTICABLE AND EXTREMELY DIFFICULT TO DETERMINE THE ACTUAL DAMAGE WHICH THE COUNTY WILL THEREBY SUSTAIN. THE PARTIES THEREFORE AGREE THAT THE CONTRACTOR WILL PAY TO THE COUNTY THE SUM SET FORTH IN THE **SPECIAL CONDITIONS**, IF ANY, FOR EACH CALENDAR DAY OF DELAY UNTIL THE WORK IS COMPLETED AND ACCEPTED. CONTRACTOR AND HIS SURETY SHALL BE LIABLE FOR THE TOTAL AMOUNT THEREOF. THE CONTRACTOR AGREES TO PAY SAID LIQUIDATED DAMAGES ESTABLISHED HEREIN, AND FURTHER AGREES THAT THE COUNTY MAY DEDUCT THE AMOUNT THEREOF FROM ANY MONIES DUE OR THAT MAY BECOME DUE THE CONTRACTOR UNDER THE CONTRACT.

ARTICLE 5. NOTIFICATION OF THIRD-PARTY CLAIMS.

COUNTY shall notify CONTRACTOR of the receipt of any third-party claim relating to the contract and is entitled to recover its reasonable costs incurred in providing the notification as provided in Public Contract Code Section 9201.

ARTICLE 6. COMPONENT PARTS OF THIS CONTRACT.

The contract entered into by this Agreement consists of the following documents, all of which are component parts of the contract as if herein set out in full or attached hereto:

Notice to Contractors Inviting Formal Bids
Information for Bidders
Bid, as accepted
List of Subcontractors
Noncollusion Affidavit
Worker's Compensation certificate
Affidavit Concerning Employment of Undocumented Aliens
Contractor's Certification of Good-Faith Effort to Hire Monterey Bay Area Residents
Bid Bond or Bidder's Security
Agreement
Performance Bond
Payment Bond for Public Works
Insurance Certificate
General Conditions of Bid #10362 Project Manual
Special Conditions of Bid #10362 Project Manual
Specifications & Plans
Working Details
Project Addenda Nos. _____ , _____ , _____ as issued.
Exhibits (List)

All of the above-named contract documents are intended to be complementary. Work required by one of the above-named contract documents and not by others shall be done as if required by all.

IN WITNESS WHEREOF, the parties have duly executed four (4) identical counterparts of this instrument, each of which shall be for all purposes deemed an original thereof, on the dates set forth below.

COUNTY OF MONTEREY

By: _____

Name: Paul H. Greenway, P.E.

Title: Acting Director of Public Works

Date: Month ____ 2012

APPROVED AS TO FORM

CONTRACTS/PURCHASING

By: _____

Name: Mike Derr

Title: Contracts/Purchasing Officer

Date: Month ____ 2012

APPROVED AS TO FORM & LEGALITY

COUNTY COUNSEL

By: _____

Name: Jesse J. Avila

Title: Deputy County Counsel

Date: Month ____ 2012

APPROVED AS TO FISCAL TERMS

COUNTY AUDITOR-CONTROLLER

By: _____

Name: Gary Giboney

Title: Chief Deputy Auditor-Controller

Date: Month ____ 2012

APPROVED AS TO INDEMNITY/INSURANCE LANGUAGE

RISK MANAGEMENT

By: _____

Name: Steven F. Mauck

Title: Risk Manager

CONTRACTOR:

NAME OF COMPANY

By: _____

Name: Name of Principal

Title: Title of Principal

Date: Month ____ 2012

By: _____

Name: Name of Secondary

Title: Title of Secondary

Date: Month ____ 2012

COMPANY ADDRESS:

STREET ADDRESS

CITY/STATE/ZIP

Contractor's License Type: XXXX

License Number: XXXXX

License Expiration Date: XXXX

NOTE: CONTRACTORS ARE REQUIRED TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD/P O BOX 26000/ SACRAMENTO CA 95826

INSTRUCTIONS: If bidder is a corporation, the full legal name of the corporation shall be set forth above together with the signatures of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the full name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his signature shall be placed above.

PERFORMANCE BOND
(Public Contract Code Section 20129)

WHEREAS, the County of Monterey has awarded to Principal,

as Contractor, for the following project:

142 W. ALISAL ST, SALINAS, CA-OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION, PROJECT NO. 8820, BID PACKAGE NO. 10362; and

WHEREAS, Principal, as Contractor, is required to furnish a bond in connection with said contract, to secure the faithful performance of said contract.

NOW, THEREFORE, we _____

as Principal, and _____

as Surety, are held and firmly bound unto the County of Monterey, a political subdivision of the State of California (hereinafter called "County"), in the penal sum of _____ Dollars (\$ _____), for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

If the Principal, as Contractor, or Principal's heirs, executors, administrators, successors, or assigns, (1) shall in all things stand to and abide by and well and truly keep and perform the covenants, conditions, and agreements in 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 (2) shall indemnify, defend, and save harmless the County, the members of its board of supervisors, and 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 virtue.

Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of said contract or the call for bids, or to the work, or to the specifications.

Whenever the Principal, as Contractor, is in default, and is declared in default, under the Contract by the County of Monterey, the County of Monterey having performed its obligation under the contract, Surety may promptly remedy the default, or shall promptly:

1. Complete the contract in accordance with its terms or conditions, or
2. Obtain a bid or bids for submission to County of Monterey for completing the Contract in accordance with its terms or conditions, and upon determination by the County of Monterey and Surety of the lowest responsible and responsive bidder, arrange for a contract between such bidder and the County of Monterey, and make available as work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price.

If suit is brought upon this bond by the County and judgment is recovered, the Surety shall pay all litigation expenses incurred by the County in such suit, including attorneys' fees, court costs, expert witness fees and investigation expenses.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals this ____ day of _____, 2012, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

Principal

By: _____

Title: _____

(Corporate Seal)

Surety

By: _____

Title: _____

Attach: 1) Copy of authorization for signature for Principal, and 2) original or certified copy of unrevoked appointment, Power of Attorney, Attorney-in-Fact Certificate bylaws or other instrument entitling or authorizing person executing bond on behalf of Surety to do so.

PAYMENT BOND
(Civil Code section 3248)

WHEREAS, the County of Monterey has awarded to Principal,

as Contractor, a contract for the following project:

142 W. ALISAL ST, SALINAS, CA-OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION, PROJECT NO. 8820, BID PACKAGE NO. 10362; and

WHEREAS, Principal, as Contractor, is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen, and other persons furnishing labor and materials on the project, as provided by law.

NOW, THEREFORE, we _____

as Principal, and _____

as Surety, are held and firmly bound unto the County of Monterey, a political subdivision of the State of California (hereinafter called "County"), and to the persons named in California Civil Code section 3181 in the penal sum of _____ Dollars (\$ _____), for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

If Principal or any of Principal's heirs, executors, administrators, successors, assigns, or subcontractors (1) fails to pay in full all of the persons named in Civil Code Section 3181 with respect to any labor or materials furnished by said persons on the project described above, or (2) fails to pay in full all amounts due under the California Unemployment Insurance Code with respect to work or labor performed under the contract on the project described above, or (3) fails to pay for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal and subcontractors pursuant to Unemployment Insurance Code section 13020 with respect to such work and labor, then the Surety shall pay for the same.

Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract on the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of said contract or the call for bids, or to the work, or to the specifications.

If the County brings suit upon this bond and judgment is recovered, the Surety shall pay all litigation expenses incurred by the County in such suit, including attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond inures to the benefit of any of the persons named in Civil Code section 3181, and such persons or their assigns shall have a right of action in any suit brought upon this bond, subject to any limitations set forth in Civil Code sections 3247 et seq. (Civil Code, Division 3, Part 4, Title 15, Chapter 7: Payment Bond for Public Works).

IN WITNESS WHEREOF the above-bounden parties have executed this instrument under their several seals this _____ day of _____, 2012, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____

Title _____

Attach: 1) Copy of authorization for signature for Principal, and 2) original or certified copy of unrevoked appointment, Power of Attorney, Attorney-in-Fact Certificate bylaws or other instrument entitling or authorizing person executing bond on behalf of Surety to do so.

GENERAL CONDITIONS

**142 W. ALISAL ST, SALINAS, CA
OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION**

PROJECT NO. 8820 BID PACKAGE NO. 10362

PART I. INTRODUCTION

ARTICLE 1. DEFINITIONS.

- 1.01. Architect. The "Architect" is the person or organization identified in the Agreement as the Architect, or their authorized representative, or the replacement designated in writing by County. All references to the "Architect" in the Special Conditions and General Conditions for this project shall be a reference to **SKYLINE ENGINEERING, INC.**
- 1.02. Change Order. "Change Order" means a written modification of the Contract between the County and Contractor, signed by the County, the Contractor, and the Architect/Engineer.
- 1.03. Change Order Proposal. "Change Order Proposal" means a Contractor-generated document in response to a Change Order Request (COR).
- 1.04. Change Order Request. "Change Order Request" (COR) means a document which informs the Contractor of a proposed change in the Work, and appropriately describes or otherwise documents such change.
- 1.05. Close-Out Documents. "Close-Out Documents" means the product brochures, product/equipment maintenance and operations instructions, manuals, and other documents/warranties, as-built record documents, affidavit of payment, release of lien and claim, and as may be further defined, identified, and required by the Contract Documents.
- 1.06. Construction Project Manger. "Construction Project Manger" is the person designated by the Director of Public Works responsible for the management of the construction component of the project.
- 1.07 Contract. "Contract" means the entire agreement between County and Contractor, including all of the Contract Documents.
- 1.08 Contract Date. "Contract Date" is the date when the agreement between the County and the Contractor becomes effective.
- 1.09. Contract Sum. The "Contract Sum" is stated in the Agreement and is the total amount payable by the County to the Contractor for the performance of the work under the contract.
- 1.10. Contract Time. "Contract Time" means the period between the Start Date identified in the Notice to Proceed with Construction and the Substantial Completion Date identified in the Notice to Proceed or as subsequently amended by Change Order.

1.11. Contractor. The "Contractor" means the individual, corporation, company, partnership, firm, or other entity contracted to perform the Work and identified as such in the Agreement, or their authorized representative, regardless of the type of construction contract used, so that the term as used herein includes a Construction Manager-at-Risk or a Design-Build firm as well as a General or Prime Contractor. The contract documents refer to Contractor as if singular in number.

1.12. County. The "County" is the County of Monterey, the Owner of the project and identified as such in the Agreement, or its authorized representative.

1.13. Date of Commencement. "Date of Commencement" means the date designated in the Notice to Proceed for the Contractor to commence the Work.

1.14. Final Completion. "Final Completion" means the date determined and certified by the Architect/Engineer and County on which the Work is fully and satisfactorily complete in accordance with the Contract.

1.15. Owner. "Owner" means the County of Monterey.

1.16. Owner's Designated Representative. "Owner's Designated Representative" (ODR) means the individual assigned by the County (Owner) to act on its behalf, and to undertake certain activities as specifically outlined in the Contract. The ODR is the only party authorized to direct changes to the scope, cost, or time of the contract.

1.17. Project. "Project" means all activities necessary for realization of the Work. This includes design, contract award(s), execution of the Work itself, and fulfillment of all contract and warranty obligations. The work performed under this contract is directed towards completion of all or a part of the project.

1.18. Project Manager. The "Project Manager" (PM) is the person designated by the Director of Public Works responsible for the management of the project.

1.19. Samples. "Samples" are representative physical examples of materials, equipment, or workmanship, used to confirm compliance with requirements and/or to establish standards for use in execution of Work.

1.20. Schedule of Values. "Schedule of Values" means the detailed breakdown of the cost of the materials, labor, and equipment necessary to accomplish the Work as described in the Contract Documents, submitted by Contractor for approval by County and Architect/Engineer.

1.21. Shop Drawings. "Shop Drawings" means the drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data prepared by the Contractor or any subcontractor, manufacturer, supplier, distributor, or agents, and which detail some portion of the work.

1.22. Site. The "Site" is the geographical area of the location of Work.

1.23. Subcontractor. "Subcontractor" is a person or organization who has a direct contract with the Contractor to perform any of the work at the site or to furnish material worked to a special design

according to plans and specifications of this work. The term "subcontractor" also includes sub-subcontractors performing work at the site or furnishing specially designed material for the work, who have only an indirect relationship to the Contractor.

1.24. Substantial Completion. "Substantial Completion" means the date determined and certified by the Contract, Architect/Engineer, and County when the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract, so as to be operational and fit for the use intended.

1.25. Work. The "Work" includes all labor necessary to produce the construction required by the contract documents, and all materials and equipment incorporated or to be incorporated in such construction.

ARTICLE 2. CONTRACT INTERPRETATION.

2.01. Counting time. When any provision in the contract documents calls for computation of time in terms of days, the period so counted shall include all calendar days within the period, including usual workdays as well as weekends and holidays. Business Days and Workdays refer to Monday through Friday, eight-hour duration.

2.02. Gender and number. References to one gender include the other; references to either singular or plural include the other.

2.03. Headings. Article and paragraph headings are for convenience only, and shall not be used to interpret the provisions of this contract.

2.04. Express and implied work requirements. This contract requires the performance of all elements of work expressly mentioned herein, together with all elements of work that are reasonably inferable from the express terms of this contract as being necessary for the proper completion of the work.

2.05. Technical or trade meanings. Words which have well-known technical or trade meanings are used herein in accordance with such recognized meanings.

2.06. Interpretations by Architect. Written interpretations necessary for the proper execution or progress of the work, in the form of drawings or otherwise, will be issued with reasonable promptness by the Architect and in accordance with any schedule agreed upon. Contractor shall make written request to the Architect for such interpretations. Such interpretations shall be consistent with, and reasonably inferable from the contract documents, and may be made by field orders issued pursuant to Article 15.

2.07. Conflicts among contract documents - priorities. If there is any conflict between any of the contract documents, the conflict shall be resolved by giving effect to the provisions in the documents having higher priority and by disregarding conflicting provisions in documents having lower priority, as follows: first priority, any modifications, with the most recent having priority over earlier modifications; second priority, the Agreement; third priority, any addenda, with the most recent having priority over earlier addenda; fourth priority, the Special Conditions; fifth priority, the General Conditions.

2.08. Conflicts and interpretation problems involving plans, specifications, or working details. If a conflict or other problem of interpretation involves plans, specifications, or working details, the problem shall be resolved as follows: Dimensions take precedence over scale at all times. Figured dimensions on plans shall govern, but work not dimensioned shall be as directed. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Large-scale details shall take precedence over smaller-scale details as to shape and details of construction. Specifications shall govern as to materials, workmanship, and installation procedures. Plans, specifications, and working details are intended to be fully cooperative and to agree. However, if Contractor observes that plans, specifications, and/or working details are in conflict, he shall promptly notify the Architect with a copy to the Director of Public Works/Designee in writing and any necessary changes shall be adjusted as provided elsewhere in the contract documents for changes in work. The Architect shall resolve all conflicts involving plans, specifications, or working details wherever the foregoing principles do not apply, or where, if applied, they lead to results that appear unreasonable.

ARTICLE 3. CONTRACT DOCUMENTS.

3.01. Contract Documents. The contract documents consist of all component parts of the contract as specified in the Agreement, including the Notice to Contractors Inviting Formal Bids, Information for Bidders, Bid as accepted, List of Subcontractors, Non-Collusion Affidavit, Contractor's Certificate as to Workers' Compensation, Affidavit Concerning Employment of Undocumented Aliens, Contractor's Certification of Good-Faith Effort to Hire Monterey Bay Area Residents, Bid Bond or Bidder's Security, Agreement, Performance Bond, Payment Bond for Public Works, Insurance Certificate, General Conditions of Bid No. 10362, Project Manual, Special Conditions of Bid No. 10362, Project Manual, Specifications, Plans, Working Details, all addenda issued prior to execution of the contract, and all modifications.

3.02. Contract. The contract documents form the contract. The contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral, including the bidding documents. The contract may be amended or modified only by a modification as defined in paragraph 3.03.

3.03. Modification. A modification is (1) a written amendment to the contract signed by both parties (2) a change order (3) a written interpretation issued by the Architect or (4) a written order for a minor change in the work issued by the Architect pursuant to Article 15. A modification may be made only after execution of the contract.

3.04. Execution in quadruplicate. Unless otherwise specified in the Agreement, the contract documents shall be signed in not less than quadruplicate by the County and Contractor.

3.05. Familiarity with site and local conditions. Prior to submitting a bid, and prior to executing this contract, the Contractor shall visit the work site, familiarize himself with the local conditions under which the work is to be performed, and correlate his observations with the requirements of this contract. By executing the contract, the Contractor represents that he has done so. Based on such visits and investigations, Contractor shall notify the County in writing of any discrepancies between the local conditions and the requirements of the contract. Contractor's failure to notify County prior to submitting its bid shall be deemed an acknowledgment of and acceptance of any such discrepancies, and a waiver of any claims for extra work, which may result therefrom.

3.06. Contract documents furnished to Contractor. Unless otherwise provided in the contract documents, the Contractor will be furnished, one full size set and one half size set of all the contract documents, including the plans, specifications, and working details to facilitate the execution of the work. Additional copies of the contract documents may be obtained at cost of reproduction.

3.07. Ownership of documents. All plans, specifications, working details, and copies thereof furnished by the Architect are and shall remain the property of the County. Such documents shall not be used on any other project and shall be returned to the County on request at the completion of the work.

3.08. Organization of contract documents not controlling. The organization of the specifications into divisions, sections, and articles, and the arrangement of the plans or working details shall not control the Contractor in dividing the work among subcontractors or in establishing the extent of work to be performed by any trade.

3.09. Contract documents on-site. Contractor will at all times maintain at least one complete, up-to-date set of the contract documents, showing approval by the State Fire Marshal (including the original documents as well as all change orders and other supplemental and additional documents) on the site, to be available to the County, Architect, and their representatives.

ARTICLE 4. SUBCONTRACTORS.

4.01. No contractual relationship between County and subcontractors. Nothing contained in the contract documents shall create any contractual relation between the County or Architect and any subcontractor.

4.02. Work performed by subcontractors; substitutions. Subcontracted work shall be performed only by the subcontractors identified in Contractor's bid documents, as provided by Public Contract Code sections 4100, et seq. Substitution of subcontractors may be made only in conformity with the Subletting and Subcontracting Fair Practices Act, Public Contract Code sections 4100, et seq.

4.03. Contracts with subcontractors. All work performed for the Contractor by a subcontractor shall be pursuant to a written agreement between the Contractor and the subcontractor (and where appropriate, between subcontractors and sub-subcontractors). All such agreements shall require performance by the subcontractors in conformity with the terms of this contract, and shall include all the terms of this contract, which are applicable to subcontractors.

4.04. Payments to subcontractors.

(a) The Contractor shall pay each subcontractor, upon receipt of payment from the County, any amount equal to the percentage of completion allowed to the Contractor on account of such subcontractor's work, less the percentage retained from payments to the Contractor. The Contractor shall also require each subcontractor to make similar payments to his subcontractors. County shall have the right, but not the obligation, to issue payment by joint checks payable to the order of Contractor and any of its subcontractors.

(b) If the Project Manager fails to issue a certificate for payment for any cause which is the fault of the Contractor and not the fault of a particular subcontractor, the Contractor shall pay the subcontractor on demand, made at any time after the certificate for payment should otherwise have been issued, for his work to the extent completed, less the retained percentage.

(c) Neither the County nor the Project Manager shall have any obligation to pay or to see to the payment of any monies to any subcontractor except as may otherwise be required by law. All monies paid to Contractor hereunder shall immediately become and constitute a trust fund and shall be applied by Contractor for the benefit of all persons supplying labor, materials or equipment in connection with the work and shall not be diverted to any other purpose until the claims of such persons have been discharged.

4.05. Information provided to subcontractors. The County's Project Manager and the Architect may, on request, and at their discretion, furnish to any subcontractor, if practicable, information regarding percentages of completion certified to the Contractor on account of work done by such subcontractors.

4.06. Contractor's responsibility for work of subcontractors. Contractor shall be as fully responsible to County for the acts and omissions of any subcontractor and of persons either directly or indirectly employed by the subcontractors, as he is for acts and omissions of persons directly employed by him.

PART II. CONDUCT OF WORK.

ARTICLE 5. CONTRACT ADMINISTRATION BY ARCHITECT.

5.01. No contractual relationship between Architect, Project Manager, and Contractor. Nothing contained in the contract documents shall create any contractual relationship between the Architect, Project Manager, and the Contractor or any subcontractor.

5.02. County's representative. The Project Manager will be the County's representative during construction and until final payment as provided in this Agreement. The Project Manager will have authority to act on behalf of the County to the extent provided in the contract documents, unless otherwise modified by written instrument which will be shown to the Contractor. The Project Manager will advise and consult with the County, and all of the County's instructions to the Contractor shall be issued through the Project Manager. As County's representative, the Project Manager will provide general administration of the contract, including performance of the functions hereinafter described. In addition, the Project Manager will be the County's Representative for management of construction in the field. The Project Manager is responsible for managing the project schedule, budget, and has the authority to act on behalf of the County as relating to the management of these items.

5.03. Instructions issued through Project Manager. The County shall issue instructions to the Contractor through the Project Manager, provided that the County shall have the right, but not the obligation, to itself or through other project representatives issue change orders, require additional work and/or direct the omission of work previously ordered by written instructions directly to Contractor, provided such project representative and instructions have been prior approved in writing by the County.

5.04. Project Manager's and Architect's access to work. The Project Manager and Architect shall at all times have access to the work wherever it is in preparation and progress. The Contractor shall provide facilities for such access so the Project Manager and Architect may perform their functions under the contract.

5.05. Inspections. The Architect will make periodic visits to the site to familiarize themselves generally with the progress and quality of the work and to determine in general if the work is proceeding in accordance with the contract documents. On the basis of their onsite observations, they will keep the County informed of the progress of the work, and will endeavor to guard the County against defects and deficiencies in the work of the Contractor. The Architect will not be required to make exhaustive or continuous onsite inspections to check the quality or quantity of the work. They will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work, and they will not be responsible for the Contractor's failure to carry out the work in accordance with the contract documents, except to the extent such failure is due to Architect's breach of agreement with the County or is otherwise due to the negligence or willful misconduct of Architect.

5.06. Determination of payments to Contractor. Based on such observations and the Contractor's applications for payment, the Architect and Project Manager will determine the amounts owing to the Contractor and will issue certificates for payment in such amounts, as provided in Articles 18-21.

5.07. Decisions on artistic effect. The Architect's decisions in matters relating to artistic effect will be final if consistent with the intent of the contract documents.

5.08. Authority to reject work or to require special inspection or testing. The Project Manager and Architect may reject work, which does not conform to the contract documents. Whenever, in their reasonable opinion, they consider it necessary or advisable to ensure the proper implementation of this contract, they may require special inspection or testing of the work in accordance with Article 11, whether or not such work is then fabricated, installed, or completed. However, the Project Manager's authority to act under this paragraph, nor any decision made by them in good faith either to exercise or not to exercise such authority, shall not give rise to any duty or responsibility of the Project Manager to the Contractor, any subcontractor, any of their agents or employees, or any other person performing any of the work.

5.09. Review of shop drawings and samples. The Architect will review shop drawings and samples as provided in Article 9.

5.10. Change orders prepared by Project Manager. The Project Manager will prepare change orders and may order minor changes in the work in accordance with Article 15.

5.11. Inspections and document review. The Project Manager will conduct inspections of the work (including a final inspection), will receive and review written guarantees and related documents required by the contract and assembled by the Contractor and will issue a final certificate for payment.

5.12. Termination of Architect's employment; substitution of new Architect. In case of the termination of the employment of the Architect, the County shall appoint an Architect to replace the

former Architect, who shall insofar as Contractor is concerned succeed and be entitled to all the rights and benefits of the prior Architect.

ARTICLE 6. SERVICES PROVIDED BY COUNTY.

6.01. Easements obtained by County. The County shall secure and pay for all easements, rights-of-way, and fee interests in land necessary to enable Contractor to complete the work.

6.02. Surveys provided by County. The County shall furnish all surveys describing the existing physical characteristics, legal limits, and utility locations for the site of the project. Unless specifically provided for in the plans and specifications, the County shall not provide field engineering or construction staking.

6.03. Information and services provided by County. Information or services under the County's control shall be furnished by the County with reasonable promptness to avoid delay in the orderly progress of the work.

ARTICLE 7. CONTRACTOR'S ADMINISTRATIVE DUTIES.

7.01. Review of contract documents for errors. The Contractor shall carefully study and compare the contract documents and shall at once report in writing to the Architect, with a copy to the Project Manager, any error, inconsistency, or omission he may discover. The Contractor shall not be liable to the County or the Architect for any damage resulting from any such errors, inconsistencies, or omissions in the contract document which were reported, in writing, by Contractor to the Architect, with a copy of the correspondence to the Project Manager; provided no provisions herein shall relieve the Contractor from liability for errors, inconsistencies, or omissions which were known or reasonably should have been known to Contractor, which were not disclosed in writing to the Architect, with a copy of the correspondence to the Project Manager.

7.02. Taxes. Contractor shall pay all sales, consumer, use, and other similar taxes required by law.

7.03. Transportation and utility service. Contractor shall pay for all transportation and utility service not later than the 20th day of the calendar month following that in which such services are rendered.

7.04. Materials and equipment. Contractor shall pay for all materials, tools, and other expendable equipment to the extent of 90 percent of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at the project site and the balance thereof not later than the 30th day following completion of that part of the work in or on which such materials, tools, and equipment are incorporated or used.

7.05. Contractor's superintendent. The Contractor shall employ a competent, qualified superintendent who shall provide full time, on-site supervision of all aspects of the work. Full time means any and all times that contractor; its agents, employees or subcontractors are performing any and all work. The superintendent shall be satisfactory to the County, and shall not be changed except with the consent of

the County. The County may request at any time that a Contractor remove its superintendent from the project and provide an alternate superintendent as approved by the County. The superintendent shall represent the Contractor and all communications given to the superintendent shall be as binding as if given to the Contractor. Important communications will be confirmed in writing. Other communications will be so confirmed on written request in each case.

7.05.01 Contractor's project manager. The Contractor shall employ a competent, qualified project manager to manage the entire project and the superintendent. The Contractor shall provide the County's representative with the project manager's resume. The County's representative and the Project Manager must approve the project manager. The County reserves the right to interview the project manager at any time. The County at any time during the course of construction may require the Contractor to substitute the project manager based on poor performance, lack of experience, product knowledge, project management skills, or the ability to prosecute the work in a workmanlike manner.

7.06. Contractor's responsibility for agents and employees. The Contractor shall be responsible to the County for the acts and omissions of all his employees and all subcontractors, their agents and employees, and all other persons performing any of the work under a contract with the Contractor.

7.07. Communication through Project Manager. The Contractor shall forward all communications to the County through the Project Manager.

ARTICLE 8. GENERAL PROVISIONS REGARDING CONDUCT OF WORK.

8.01. No work without construction documents. The Contractor shall do no work without current plans, specifications, working details, etc.

8.02. Supervision and construction procedures. The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the work under the contract.

8.03. Contractor's responsibility for labor, materials, and equipment. Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, materials, equipment, and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the work.

8.04. Conduct and skill of employees. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the task assigned to him. Any person in the employ of the Contractor whom the County may deem incompetent or unfit shall be dismissed from the work and shall not again be employed on it except with the written consent of the County.

8.05. Progress schedule. The Contractor, immediately after being awarded the contract, shall prepare and submit for the Project Manager's approval, an estimated progress schedule for the work. The progress schedule shall be related to the entire project to the extent required by the contract documents. This schedule shall indicate the dates for the starting and completion of the various stages of construction and shall be revised weekly, subject to the Architect's approval.

8.06. Plans and specifications at site. The Contractor shall maintain at the site for the County one copy of all approved shop drawings, plans, specifications, working details, addenda, change orders, and other modifications, in good order and marked to record all changes made during construction. These shall be available to the Project Manager. A reproducible set of plans and working details, marked to record all changes made during construction, shall be delivered to the Project Manager for the County upon completion of the work and prior to release of final payment.

8.07. Dimensions to be checked. All dimensions shall be carefully checked by the various artisans. Each Contractor shall be held responsible for the accuracy of the dimensions of its own work. Dimensions shown on plans shall be adhered to insofar as it is possible, and no deviation from such dimensions shall be made except with the consent of the Architect. Where the work of one Contractor comes in contact with the work of another Contractor, each Contractor shall carefully check all dimensions which affect its own work. Wherever possible, dimensions shall be taken at the building, but no work shall be delayed or held up waiting for building dimensions, when by the exercise of foresight and proper cooperation, the dimensions may be established in advance of construction. The Contractor shall verify all dimensions at the site and shall be solely responsible for same or deviations from same.

8.08. Cutting and patching. The Contractor shall be responsible for any cutting, fitting, and patching that may be required to complete his work, except as otherwise specifically provided in the contract documents. The Contractor shall not endanger any work of any other contractors by cutting, excavating, or otherwise altering any work and shall not cut or alter the work of any other contractor except with the written consent of the Project Manager.

8.09. Revision of operations. When, in the judgment of the County, it becomes necessary to accelerate the work, the Contractor when so ordered shall concentrate his forces at such points as directed and execute such portions of the work as may be required.

8.10. Damage to work and property on-site. All damage or loss to any property on or near the site caused in whole or in part by the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, shall be remedied by the Contractor, at his expense, except damage or loss attributable to faulty specifications or working details, or to the acts or omissions of the County or Architect or anyone employed by either of them or for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor.

ARTICLE 9. SHOP DRAWINGS AND SAMPLES.

9.01. Submittal of shop drawings and samples. The Contractor shall review, stamp with his approval, and submit, with reasonable promptness and in orderly sequence so as to cause no delay in the work or in the work of any other contractor, all shop drawings and samples required by the contract documents or subsequently by the Architect as covered by modifications. Shop drawings and samples shall be properly identified as specified, or as the Architect may require. At the time of submission, the Contractor shall inform the Architect in writing of any deviation in the shop drawings or samples from the requirements of the contract documents.

9.02. Warranties concerning shop drawings and samples. By approving and submitting shop drawings and samples, the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers, and similar data, or will do so,

and that he has checked and coordinated each Shop Drawing and Sample with the requirements of the work and of the contract documents.

9.03. Architect's review and approval. The Architect will review and approve shop drawings and samples with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the project and with the information given in the contract documents. The Architect's approval of a separate item shall not indicate approval of an assembly in which the item functions.

9.04. Corrections. The Contractor shall make any corrections required by the Architect and shall resubmit the required number of corrected copies of shop drawings or new samples until approved. The Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections requested by the Architect on previous submissions.

9.05. Contractor's responsibility. The Architect's approval of shop drawings or samples shall not relieve the Contractor of responsibility for any deviation at the time of submission, nor shall the Architect's approval relieve the Contractor from responsibility for errors or omission in the shop drawings or samples.

9.06. Completion of work in accordance with shop drawings and samples. No portion of the work requiring a Shop Drawing or Sample submission shall be commenced until the Architect has approved the submission. All such portions of the work shall be in accordance with approved shop drawings and samples.

ARTICLE 10. SEPARATE CONTRACTS ON SAME PROJECT.

10.01. County's right to award separate contracts. The County reserves the right to award other contracts in connection with other portions of the project.

10.02. Coordination among contractors. Contractor shall ascertain to his own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by County in prosecution of the project, to the end that Contractor may perform this contract in light of such other contracts, if any. Nothing herein shall be interpreted as granting to Contractor exclusive occupancy at the site. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the project. If simultaneous execution of any contract for the project is likely to cause interference with the performance of some other contract or contracts, the County shall decide which contractor shall cease work temporarily and which contractor shall continue or whether work can be coordinated so that contractors may proceed simultaneously. County shall not be responsible for any damages suffered or extra costs incurred by Contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the project, or caused by any decision or omission of County respecting the order of precedence in performance of the contracts. Any delay in the progress of the work as a result of such priorities shall not give rise to any adjustments in the Contract Price and Contractor agrees that its sole right and remedy therefore shall be an extension of time.

10.03. Responsibility to other contractors. The Contractor shall afford other contractors on the same project reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall properly connect and coordinate his work with theirs.

10.04. Duty to inspect other contractor's work. If any part of the Contractor's work depends for proper execution or results upon the work of any other separate contractor, the Contractor shall inspect and promptly report to the Project Manager any apparent discrepancies or defects in such work that render it unsuitable for such proper execution and results. Failure of the Contractor so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper to receive his work, except as to defects which may develop in the other separate contractor's work after the execution of the Contractor's work. Any work exhibiting unacceptable quality as defined by the contract documents will result in Contractor's payment (or a portion thereof) being withheld until the unacceptable work is corrected to meet the required quality standards, per Article 19 herein.

10.05. Damage to other contractor's work. Should the Contractor cause damage to the work or property of any separate contractor on the project, the Contractor shall, upon due notice settle with such other contractor by agreement or arbitration, if he will so settle. If such separate contractor sues the County or initiates an arbitration proceeding on account of any damage alleged to have been so sustained, the County shall notify the Contractor who shall defend such proceedings and indemnify and hold harmless County.

10.06. Responsibility for costs caused by one contractor to another. Any costs to one contractor or his subcontractors on the project caused by defective or ill-timed work by another contractor or his subcontractors on the project shall be borne by the party responsible for such defective or ill-timed work.

10.07. County's right to settle disputes over clean-up. If a dispute arises between the separate contractors as to their responsibility for cleaning up under paragraph 13.05, the County may clean up and charge the cost thereof to the several contractors, as the County shall determine to be just.

ARTICLE 11. TESTS.

11.01. Contractor's responsibility for required tests. If the contract documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any work to be inspected, tested, or approved, the Contractor shall give the Project Manager timely notice of its readiness and of the date arranged so the Project Manager may observe such inspection, testing, or approval. The County shall bear all costs of such inspections, tests, and approval, unless otherwise provided.

11.02. Responsibility for tests not anticipated in contract. If after the commencement of the work, the Project Manager determines that any work requires special inspection, testing, or approval which paragraph 11.01 does not include, he will, upon written authorization from the County, instruct the Contractor to order such special inspection, testing, or approval, and the Contractor shall give notice as in paragraph 11.01. If such special inspection or testing reveals a failure of the work to comply (1) with the requirements of the contract documents or (2) with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, then the Contractor shall bear all costs thereof, including the Project Manager's additional services made necessary by such failure; otherwise the County shall bear such costs, and an appropriate change order shall be issued.

11.03. Certificates of inspection. Required certificates of inspection, testing, or approval shall be secured by the Contractor and promptly delivered by him to the Project Manager.

11.04. Observation by Project Manager. If the Project Manager wishes to observe the inspections, tests, or approvals required by this Article 11, he will do so promptly and, where practicable, at the source of supply.

11.05. No waiver of Contractor's responsibility. Neither the observations of the Project Manager in their administration of the construction contract, nor inspections, tests, or approvals by persons other than the Contractor shall relieve the Contractor from his obligations to perform the work in accordance with the contract documents.

ARTICLE 12. TIME FOR PERFORMANCE AND LIQUIDATED DAMAGES.

12.01. Time is of the essence. All time limits stated in the contract documents are of the essence of the contract.

12.02. Commencement and completion of work. Contractor shall commence the work on the starting date established in the Notice to Proceed and shall complete the work thereafter within the time limit established in the Project Schedule as defined in Special Conditions, Section 1. If there is no Notice to Proceed, Contractor shall commence the work on the starting date established in the Special Conditions and shall complete the work thereafter within the time limit established in the Special Conditions. If there is no Notice to Proceed and if the Special Conditions do not establish a starting or completion date, Contractor shall commence the work promptly after the Agreement is executed by all parties and shall prosecute the work regularly and diligently so as to complete the work within a reasonable time thereafter.

12.03. Prosecution of work. Contractor shall prosecute the work diligently and expeditiously with adequate forces and shall complete it within the time specified in the contract documents.

12.04. Date of final completion. When the Contractor believes that his work is completed, he shall request that the Architect and the County inspect the work and certify its completion. The Architect and the County will respond promptly to such a request. The date of final completion of the work or any designated portion thereof is the date on which, after the Architect and the County certifies that construction has been completed in accordance with the contract documents, the County's Board of Supervisors accepts the work.

12.05. Grounds for extension of time. The time for completion of the work shall be extended by change order for such reasonable time as the Architect or County may determine, if an extension of time is reasonably necessary due to a delay caused to the Contractor by any of the following circumstances:

- (a) Sole act or sole negligence of the County, the Architect, any employee of either, or any separate contractor employed by the County;
- (b) Any change ordered in the work, which change is requested by County or Architect or which is not due to the act or negligence of Contractor.
- (c) Any labor disputes, fire, unusual delay in transportation, unavoidable casualties, or causes beyond the Contractor's control and which Contractor could not reasonably have foreseen or made reasonable

provisions for, and which are not caused by or the continuance of which is not due to, any act or failure to act on behalf of Contractor; or

(d) Any other cause which the Architect or Project Manager determines may justify the delay.

12.06. Extensions of time due to failure to furnish interpretation. No extension of time shall be allowed for delay caused by the Project Manager's failure to promptly provide an interpretation of the contract, except in the following circumstances:

(a) The Project Manager failed to provide the interpretation for over fifteen days after demand was made for such interpretation, and it would be reasonable to extend time due to such failure; or

(b) The parties have agreed upon a schedule for the provision of interpretations, the Project Manager failed to comply with that schedule, and it would be reasonable to extend time due to such failure.

12.07. Claims for extension of time. Notwithstanding the provisions of Section 12.05 and 12.06 above, none of the causes of delay described therein shall be deemed a valid excuse for Contractor's failure to start, perform, or complete the work, or any portion thereof, on time unless Contractor has notified the Project Manager, in writing, of the alleged cause of delay within ten (10) days after commencement of the cause of the delay. Should the Architect and the County disagree with Contractor that the alleged delay warrants an extension of time for the performance of any act required hereunder, the Contractor shall notify the County in writing, as provided in Article 30; provided that the Contractor shall proceed with the work during the period that the Architect and Contractor seek to resolve the matter.

12.08. Liquidated damages. THE PARTIES AGREE THAT IN CASE ALL THE WORK CALLED FOR UNDER THE CONTRACT IN ALL PARTS AND REQUIREMENTS IS NOT COMPLETED WITHIN THE TIME SPECIFIED IN THE CONTRACT DOCUMENTS, DAMAGE WILL BE SUSTAINED BY THE COUNTY, AND THAT IT IS AND WILL BE IMPRACTICABLE AND EXTREMELY DIFFICULT TO DETERMINE THE ACTUAL DAMAGE WHICH THE COUNTY WILL THEREBY SUSTAIN. THE PARTIES THEREFORE AGREE THAT THE CONTRACTOR WILL PAY TO THE COUNTY THE SUM SET FORTH IN THE SPECIAL CONDITIONS, IF ANY, FOR EACH CALENDAR DAY OF DELAY UNTIL THE WORK IS COMPLETED AND ACCEPTED. CONTRACTOR AND HIS SURETY SHALL BE LIABLE FOR THE TOTAL AMOUNT THEREOF. THE CONTRACTOR AGREES TO PAY SAID LIQUIDATED DAMAGES ESTABLISHED HEREIN, AND FURTHER AGREES THAT THE COUNTY MAY DEDUCT THE AMOUNT THEREOF FROM ANY MONIES DUE OR THAT MAY BECOME DUE THE CONTRACTOR UNDER THE CONTRACT.

12.09. Removal or relocation of main or trunk line utility facilities. The Contractor shall not be assessed for liquidated damages for delay in completion of the project, when such delay was caused by the failure of the County or a utility company to provide for removal or relocation of existing main or trunk line utility facilities; however, when the Contractor is aware that removal or relocation of an existing utility has not been arranged, Contractor shall promptly notify the County and the utility company in writing, so that provision for such removal or relocation may be made to avoid and minimize any delay which might be caused by the failure to remove or relocate the main or trunk line utility facilities, or to provide for their removal or relocation. In accordance with Government Code

section 4215, if the Contractor while performing the contract discovers any existing main or trunk line utility facilities not identified by the County in the contract plans or specifications, he shall immediately notify the Project Manager and utility in writing. The utility, where it is the owner of the facilities, shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price. The Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy and for equipment on the project necessarily idled during such work. Such compensation shall be in accordance with the extra work provisions set forth elsewhere in the contract documents. Conversely, Contractor shall not be compensated for the costs of locating, repairing damage and removing or relocating such utility facilities which is due to the failure of the Contractor to exercise reasonable care. In such an event, Contractor shall not be credited for nor given an extension of time for equipment on the project necessarily idled during such work necessitated by Contractor's failure to exercise reasonable care.

ARTICLE 13. USE OF SITE.

13.01. Limit of operations. The Contractor shall confine his apparatus, the storage of materials, and the operations of his workers to limits indicated on the plans, or by law, ordinances, permits, or directions of the Project Manager and shall not unreasonably occupy the premises with his materials. Insofar as possible, the Contractor shall arrange his work and its progress to prevent any interference with the operations of the existing facilities. All utilities must be protected and connections made to utilities so as not to interrupt service.

13.02. Utilities. Unless otherwise noted, all utilities, including but not limited to electricity, water, gas, and telephone, used on the work shall be furnished and paid for by Contractor. Contractor shall furnish and install temporary distribution systems, including meters, if necessary, from distribution points to points on-site where utility is necessary to carry on the work. Upon completion of the work, Contractor shall remove all temporary distribution systems. If this contract is for an addition to an existing facility, Contractor may, with the written permission of the County, use County's existing utilities by making prearranged payments to County for utilities used by Contractor for construction.

13.03. Metering devices. For the purpose of providing utility service to the project, Contractor may install or cause to be installed metering devices or other equipment of utility companies or of political subdivisions, title to which is commonly retained by the utility company or political subdivision. If any such metering device or equipment is installed, contractor shall advise County as to the owner of such device or equipment.

13.04. Sanitary facilities. Contractor shall provide sanitary toilet facilities for the use of all workers and subcontractors. The building shall be properly stocked and maintained in a sanitary condition at all times and shall be left at the site until removal is directed by the Project Manager. Use of the toilet facilities in the Work under construction shall not be permitted.

13.05. Field Office. THIS REQUIREMENT IS DELETED FOR PROJECT 8820. Contractor shall provide for the exclusive use of Architect and Project Manager a temporary, private office of not less than 150 square feet of floor area to be located as directed by the County's Project Manager and to be

maintained until removal is authorized by the County. The office shall be of substantial waterproof construction with adequate natural light and ventilation by means of stock-design windows. The door shall have a key-type lock or padlock hasp. A table satisfactory for study of plans and two chairs shall be provided by Contractor. Contractor shall provide and pay for adequate lights, heat, and air conditioning for the field office until authorized removal.

13.06. Telephone and Internet Access. THIS REQUIREMENT IS DELETED FOR PROJECT 8820. Contractor shall install a working telephone and provide internet access in the Architect and Project Manager's office and shall maintain the same until the final completion of the contract and the acceptance of work. Architect and Project Manager shall have free, unrestricted use of this telephone and internet access for purposes connected with the Work. The cost of the installation and all charges for the use of the telephone and internet access shall be paid by the Contractor.

13.07. Cleaning up during and after work. The Contractor, at all times, shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the work, he shall remove all his waste materials and rubbish from and about the project as well as all his tools, construction equipment, machinery, and surplus materials. If the Contractor fails to clean up, the County may do so and the cost thereof shall be charged to Contractor as provided in paragraph 31.02.

ARTICLE 14. MATERIALS.

14.01. Materials provided by Contractor. Except as otherwise expressly stated in this contract, Contractor shall provide and pay for all materials, labor, tools, equipment, water, lights, power, transportation, superintendence, temporary constructions of every nature, and all other services and facilities of every nature whatsoever necessary to execute and complete this contract within the specified time.

14.02. Quality of materials. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality.

14.03. Provision and storage of materials. Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of work and shall be stored properly and protected as required. Contractor shall be entirely responsible for damage or loss by weather or other causes to materials or work under this contract. All stored items shall be inventoried, specified by identification numbers (if applicable), released to County by sureties of the Contractor and, if stored offsite, stored only in a reputable bonded warehouse.

14.04. Substitution of materials. Whenever in the specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name or by the name of the manufacturer, such specification shall be deemed to be used for the purpose of facilitating the description of the material, process, or article desired and shall be deemed to be followed by the words "or equal," and Contractor may, unless otherwise stated, offer any material, process, or article which shall in every respect be substantially equal to or better than that specified. The burden of proof as to equality of any material, process, or article shall rest with Contractor. Contractor shall submit any request for substitution, together with any substantiating data, within (35) thirty-five days after the award of this contract. These provisions authorizing submission of "or equal" justification data shall not in any way authorize

an extension of time for performance of this contract. In the event Contractor-furnished material, processes, or articles that are more expensive than those specified, the difference in cost so furnished shall be borne by Contractor. Requests for substitution of products, materials or processes other than those specified must be accompanied by evidence whether or not the proposed substitution: (1) is equal in quality and serviceability to the specified item; (2) will not entail changes in detail and construction of related work; (3) will be acceptable in consideration of the required design and artistic effect; (4) will not provide a cost disadvantage to Architect or County. Contractor shall promptly provide, upon request, any other information that may be required of it to assist Architect and County in determining whether the proposed substitution is acceptable. The final decision shall be that of the Architect and the County. County's and Architect's approval shall be in writing, shall follow the procedure for change orders, and shall be required for the use of a proposed substitute material. County may condition its approval of the substitution upon delivery to County of an extended warranty or other assurances of adequate performance of the substitution.

ARTICLE 15. CHANGES IN THE WORK.

15.01. Change orders. The County, without invalidating the contract, may order changes in the work within the general scope of the contract consisting of additions, deletions, or other revisions. The contract sum and the time for performance of the work shall be adjusted accordingly. All such changes in the work shall be authorized by change order, and shall be executed under the applicable conditions of the contract documents. The contract sum and the time for performance of the work may be changed only by change order.

The amount to be paid to the Contractor pursuant to the Contract Documents shall, where applicable, be increased or decreased in the manner hereinafter set forth; provided however, that if the Contractor should proceed with a Change in the Work upon an oral order, by whomsoever given, it shall constitute a waiver by the Contractor of any claim for an increase in the Contract Sum on account thereof. Upon receipt of said written Change Order or Written Directive, the Contractor shall promptly proceed with the Change in the Work, even though the amount of any resultant increase or decrease in the contract sum has not yet been determined. All Changes in the Work shall be performed in accordance with the Contract Documents.

15.02. Method to calculate adjustments in contract price. Determination of the method to be used to calculate adjustments in the Contract Price shall be at the sole discretion of the County. The use by the Contractor of the Total Cost Method (calculating the total sum of expenses incurred on the project, less amounts paid, marked up by overhead and profit) of pricing changes and claims is expressly prohibited (provided however, the County may use a "make whole" analysis to determine the reasonableness of the Contractor's claim). One of the following methods shall be used:

(a) Unit Price Method:

1. Whenever County or its representative authorizes Contractor to perform on a Unit Price basis, County's authorization shall clearly state the:
 - a. Scope of Work to be performed;
 - b. Applicable Unit Price; and
 - c. Not to exceed amount of reimbursement as established by the County.
2. The applicable unit price shall include reimbursement for all direct and indirect costs of the Work, including overhead and profit.

3. Contractor shall only be paid under this method for the actual quantity of materials incorporated in or removed from the Work and such quantities must be supported by field measurement statements verified by County.

(b) Firm Fixed Price Method:

1. The Contractor and County may mutually agree on a fixed amount as the total compensation for the performance of changed work.
2. Any adjustments to the Contract Price using the Firm Fixed Price Method shall include, when appropriate, all reasonable costs for labor, equipment, material, overhead and profit. Such overhead and profit shall be calculated in accordance with provision 15.04(b)(4)F.
3. Whenever the County authorizes Contractor to perform changed work on a Firm Fixed Price Method, the County's authorization shall clearly state:
 - a. Scope of Work to be performed
 - b. Total Fixed Price payment for performing such work

(c) Time and Materials Method:

1. Whenever the County authorizes the Contractor to perform Work on a Time and Material basis, County's authorization shall clearly state:
 - a. Scope of Work to be performed;
 - b. A not to exceed amount of reimbursement as established by the County.
2. Contractor shall:
 - a. Cooperate with County and assist in monitoring the Work being performed;
 - b. The Contractor's and subcontractors' labor hours, materials, and equipment charged to work under the Time and Materials Method shall be substantiated by detailed time cards or logs completed on a daily basis before the close of business each working day. The Contractor shall initial each time card and/or log at the close of each working day. Records of the Contractor and Subcontractors pertaining to work paid for on a Time and Material method shall be maintained and available for inspection as requested by the County or its representatives;
 - c. Perform all work in accordance with this provision as efficiently as possible; and
 - d. Not exceed any cost limit(s) without County's prior written approval.
3. Contractor shall submit costs and any additional information requested by the County to support Contractor's requested price adjustment.

No change in the Contract Price shall be allowed to the extent (1) Contractor's changed cost of performance is due to the fault, acts, or omissions of Contractor, or anyone for whose acts or omissions Contractor is responsible; (2) the change is concurrently caused by Contractor and County; or, (3) the change is caused by an act of *Force Majeure*.

The County shall not be responsible for, and the Contractor shall not be entitled to, unallowable costs. Unallowable costs include, but are not limited to, (1) interest or attorney's fees of any type other than those mandated by California statutes, (2) claim preparation or filing costs, (3) the cost of preparing or reviewing Change Proposals or Requests for Change Orders, (4) lost profits, lost income or earnings, (5) rescheduling costs, (6) costs for idle equipment when such equipment is not at the Site, has not been employed in the Work and is not scheduled to be used at the Site, (7) lost earnings or interest on unpaid retention, (8) claims consulting costs, (9) the costs of corporate officers or staff visiting the Site

or participating in meetings with the County, (10) any compensation due to the fluctuation of foreign currency conversions or exchange rates, (11) loss of other business, and (12) any other special, consequential, or incidental damages incurred by the Contractor or subcontractors.

15.03. Signatures on change orders. A change order shall be in writing and shall be signed by the County's Project Manager and the Architect. Alternatively, the change order may be signed by the Architect or Project Manager alone, provided he has written authority from the County for such procedure and that a copy of such written authority is furnished to the Contractor if he agrees to the adjustment in the contract sum or the contract time. Except as otherwise provided herein, the change order shall also be signed by the Contractor in order to be effective, indicating the Contractor's consent to the changes made.

15.04. Determining cost or credit for change order.

(a) The cost or credit to the County resulting from a Change in the work shall be determined in one or more of the following ways:

1. by mutual acceptance of a lump sum for work and materials properly itemized;
2. by unit prices stated in the contract documents or subsequently agreed upon; or
3. as provided in subsection B.

(b) All parties to the agreement shall observe the following procedures for all change proposals and shall require all subcontractors to follow the same procedures:

1. Each change proposal will carry a unique identifying number, such as C-001, A-001 or O-001 which identifies the originator, i.e. C = Contractor, A = Architect, O = Owner and a chronological serial number. All correspondence referring to that change order, no matter who originates the correspondence, shall refer to the same identifying number. Any change proposal without such number shall be returned to the originator.
2. The items of Work involved shall be identified by specific reference to drawing and detail number and specification section if possible.
3. The quantities of material or other Work involved will be identified along with the costs thereof. The items of Work shall be arrayed in a manner that is consistent with the Construction Specifications Institute (CSI) (48) forty-eight division uniform system for classifying construction activities used for the schedule of values for each project component.
4. The total cost of a change proposal shall be limited to the following elements of cost, overhead, and profit:
 - a. Labor - For all labor, including foreman supervision, but excluding general superintendents, as may be necessary, the Contractor shall be reimbursed for labor costs as provided herein. The labor cost of a change in the work shall be calculated as the sum of the following.
 - i. Wages of labor on the Contractor's payroll, including foreman, directly engaged in the Work; hourly rates for each classification of worker shall be identified;
 - ii. Engineering and drafting performed;
 - iii. Fringe benefits established by the governing trade organizations;
 - iv. Federal Insurance Contributions Act costs and Federal and State Unemployment Taxes;
 - v. Net actual premium change for Commercial Liability, Workers' Compensation, Property Damage, and any other forms of Insurance.

- b. Material – The cost of materials resulting from a change in the Work shall be calculated in one or more of the following methods, at the County’s election:
- i. Invoice Cost – The Contractor may be paid the actual invoice cost of materials including actual freight and express charges and applicable taxes less all available discounts, rebates, and back charges, notwithstanding the fact that they may not have been taken by the Contractor. This method shall be considered only to the extent the Contractor’s invoice costs are reasonable and the Contractor provides copies of vendor invoices, freight and express bills, and other evidence of cost accounting and payment satisfactory to the County. As to materials furnished from the Contractor’s stocks for which an invoice is not available, the Contractor shall furnish an affidavit certifying its actual cost of such materials and such other information as the County may reasonably require;
 - ii. Wholesale Price – The Contractor may be paid the lowest current wholesale price for which the materials are available in the quantities required, including customary costs of delivery and all applicable taxes less all available discounts, rebates, and back charges; or,
 - iii. County-Furnished Materials – The County reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no Claim for costs, overhead or profit on such materials.
- c. Equipment – The additional cost, if any, of machine-power tools and equipment usage shall be calculated in accordance with the following:
- i. Equipment Rates – The Contractor’s own charge rates may be used if verified and approved by the County and based on the Contractor’s actual ownership and operating cost experience. Rental rates contained in published rate guides may be used if their cost formulas and rate factors are identifiable, reflect the Contractor’s historical acquisition cost, utilization and useful life, and do not include replacement cost, escalation contingency reserves, general and administrative expense, or profit. Rates shall be based on the Contractor’s actual allowable costs incurred or the rates established according to the Rental Rate Blue book for Construction Equipment, published by Machinery Information Division of PRIMEDIA, whichever is less. The rental Rate Blue Book established rate shall be the monthly rate for the equipment plus the monthly rate for required attachments, divided by 176, plus the hourly operating cost, multiplied by the appropriate area adjustment factor if appropriate. The rates shall apply for actual equipment usage up to eight hours per day. For all hours in excess of eight hours per day or 176 hours per month, the established monthly rate shall be divided by 352, plus the hourly operating cost, multiplied by the area adjustment factor, if appropriate.
 - ii. Transportation – If necessary equipment is not already at the Site and it is not anticipated that it would be required for the performance of other work under the terms of the Contract, the calculation shall include a reasonable amount for the costs of the necessary transportation of such equipment.
 - iii. Standby – The Contractor shall only be entitled to standby equipment costs if (a) the equipment is ready, able, and available to do the Work at a moment’s notice; (b) Contractor is required to have equipment standby because of an event or condition solely caused by the County; and (c) the Contractor can demonstrate that it could have and intended to use the equipment on other projects or jobs. The Contractor shall be compensated at 50% of the adjusted hourly rate identified in the Rental Rate Blue Book

for Construction Equipment, published by Machinery Information Division of K-111 Directory Corp. Standby shall not be paid during periods of Contractor-caused delay, concurrent delay, unusually severe weather conditions, during any seasonal shutdown, routine maintenance, downtime or occurrence specified in the Contract Documents. No payment shall be made for a 24-hour period. Standby costs shall not be paid for weekends, holidays, and any time the equipment was not intended to be used on the project as demonstrated by the Project Schedule.

- d. Subcontractors' Cost – The Subcontractor's cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.
 - e. Bonds - Itemized statement of changes in costs of bonds.
 - f. Markup – The allowed markup for change order work shall not exceed the following two items:
 - i. 10 percent (10%) combined overhead and profit markup for the Contractor performing the actual change order work and,
 - ii. 5 percent (5%) combined overhead and profit markup on the direct costs for the Contractor's markup of subcontractor work. In no event shall the total combined overhead and profit markup for the Contractor and all intermediate tier subcontractors and suppliers exceed 15 percent (15%) of the direct cost to perform the Change Order Work. Direct costs shall include Labor (as defined in provision 15.04(b)(4)A, Materials (as defined in provision 15.04(b)(4)B, Equipment (as defined in provision 15.04(b)(4)C, Subcontractor Costs (as defined in provision 15.04(b)(4)D, Bond (as defined in provision 15.04(b)(4)E. All other costs shall be deemed overhead costs. Profit markup shall be allowed on delay, acceleration, unabsorbed overhead, or any other asserted impact costs.
 - g. Taxes - Taxes required to be paid by the Contractor, but not included above.
- (c) Invoices or quotes shall accompany Change Proposals from vendors. Change proposals shall be sent to the Architect and Project Manager in duplicate, who shall maintain a database of all proposals which can readily determine the location and status of the change request. Change proposals shall include all cost backup, including breakdown of hours expended by jobsite personnel per task with or without overall execution of the work. Lump sum change proposals lacking necessary backup, as determined by County, will not be accepted or approved.
- (d) All change proposals shall be checked by the Architect and Project Manager for accuracy and fairness. Should contractor utilize SMACNA or NECA cost estimating standards, they will use 70 percent (70%) of the most favorable labor productivity rates.
- (e) When the final costs are agreed upon by the County, the Contractor, and the Architect, a change order will be prepared by the County for signature by the County, Contractor, and Architect. The Change Order shall be the record document defining the costs and time extensions, if any, of the required and agreed-to change in the Work. A Change Order calculated in accordance with the provisions of this Agreement shall be full and complete compensation and final settlement of all changes and claims for all (a) time; (b) direct, indirect, and overhead costs; (c) profit; and (d) any and all costs or damages associated with delay, inconvenience, disruption of schedule, impact, ripple effect,

loss of efficiency or productivity, acceleration of work, lost profits, and/or any other costs or damages related to any work either covered or affected by the changed work, or related to the events giving rise to the change.

(f) The Contractor shall keep and present, in the American Institute of Architects' format, an itemized accounting together with appropriate supporting data. Pending final determination of cost to the County, payments on account shall be made on the Contractor's certificate for payment. The amount of credit to be allowed by the Contractor to the County for any deletion or change which results in a net decrease in cost will be the amount of the actual net decrease as confirmed by the Architect and Project Manager. When both additions and credits are involved in any one change, the allowance for overhead and profit shall be figured on the basis of net increase, if any.

(g) If no agreement can be reached on changes in the work or costs, or the Contractor refuses to accept a Change Order, the County may issue the Change Order unilaterally. The Contractor shall comply with the requirements of the Change Order. The County shall provide for an equitable adjustment to the Contract Price and compensate Contractor accordingly. If the Contractor does not agree that the adjustment is equitable, it may submit a claim in accordance with Article 30. If Contractor refuses to comply with the Change Order, County may have the work done by another contractor or its own forces.

15.05. Changes requiring an increase in contract sum.

(a) If the County elects to have the Change in the Work performed on a lump sum basis, its election shall be based on a lump sum proposal which shall be submitted by the Contractor to the County within five (5) workdays of the County's request therefore, but the County's request for a lump sum proposal shall not be deemed an election by the County to have the Change in the Work performed on a lump sum basis.

(b) If the County elects to have the Change in the work performed on a unit-cost basis, its election shall be based on a unit price proposal which shall be submitted by the Contractor to the County within five (5) workdays of the County's request therefore, but the County's request for a unit price proposal shall not be deemed an election by the County to have the Change in the work performed on a unit price basis.

(c) If the County elects to have the Change in the work performed on a time and material basis, the same shall be performed, its election shall be based on a time and materials price proposal which shall be submitted by the Contractor's within five (5) workdays of the County's request therefor, but the County's request for a time and materials price proposal shall not be deemed an election by the County to have the Change in the work performed on a time and materials basis.

(d) Nothing herein contained shall preclude the County from requesting a lump sum proposal, a unit price proposal, and a time and materials price proposal, or any two of those, with respect to the same Change in the Work, in which event, the Contractor shall submit all proposals requested. .

(e) Until such time as the County makes it election under this paragraph, the Contractor shall submit daily time and material tickets to the County as required under subparagraph (c) and section 15.04(b), which shall be subject to authentication as therein provided. At such time as the County makes its

election under this paragraph, an appropriate Change Order will be issued; provided however, that until such time, the County shall pay to the Contractor up to the County's reasonable estimated value of the Change in the Work.

(f) The Contractor's proposal shall be in compliance with sections 15.02, 15.03, 15.04 of the General Conditions.

15.06. Changes requiring a decrease in contract sum. If the Change in the Work will result in a decrease in the contract sum, the County may request a quotation by the Contractor of the amount of such decrease for use in preparing a Change Order. The Contractor's quotation shall be forwarded to the County within five (5) days of the County's request and, if acceptable to the County, shall be incorporated in the Change Order. If not acceptable, the parties shall make every reasonable effort to agree as to the amount of such decrease, which may be based on a lump sum properly itemized, on unit prices stated in the Contract Documents and/or on such other basis as the parties may mutually determine. If the parties are unable to so agree, the amount of such decrease shall be the total of the estimated reduction in actual cost of the work, as determined by the County in its reasonable judgment, plus ten percent (10%) thereof as overhead and profit. The Contractor's proposal shall be in compliance with sections 15.02, 15.03 & 15.04 of the General Conditions.

15.07. Changes affecting contract time. If the Change in the Work will result in an extension or contraction of the contract time, and the parties are unable to agree as to the number of days by which the contract time will be extended or contracted, the County shall not be required to make its determination until the work has been completed, at which time its determination shall be based on a review of the Contractor's books and records relating to the time involved in performing the Change in the Work and on the County's judgment as to whether the Contractor diligently performed the same.

15.08. Disputes regarding changes. If any dispute should arise between the parties with respect to an increase or decrease in the Contract Sum or an expansion or contraction in the contract time as a result of a Change in the Work, the Contractor shall not suspend performance of a Change in the Work or the Work itself unless otherwise so ordered by the County in writing. The County shall, however, pay to the Contractor up to the County's reasonable estimate of the value of the Change in the Work, regardless of the dispute, if said Change in the Work results in an increase in the Contract Sum; and the County shall have the right to decrease the Contract Sum to the County's reasonable estimated value of the Change in the Work, regardless of the dispute, if said Change in the Work results in a decrease in the contract sum.

15.09. Adjustment of unit prices. If unit prices are stated in the contract documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a proposed change order that application of the agreed unit prices to the quantities of work proposed will create a hardship on the County or the Contractor, the applicable unit prices shall be equitably adjusted to prevent such hardship.

15.10. Concealed conditions. If concealed conditions encountered in the performance of the work below the surface of the ground are at variance with the conditions indicated by the contract documents, or if previously unknown physical conditions encountered below the surface of the ground are of an unusual nature, differing materially from those generally recognized as inherent in work of the character and in the location provided for in this contract, or should concealed or unknown conditions

in an existing structure be at variance with the conditions indicated in the contract documents or be of an unusual nature, at variance with those ordinarily encountered and generally inherent in the work to be performed, then the contract sum shall be equitably adjusted by change order upon claim by either party made within twenty (20) days after first observing the conditions.

15.11. Claims for additional cost. All claims for additional compensation or for an increase in the contract sum shall be made as provided in Article 30. Any change in the contract sum resulting from such claim shall be authorized by change order.

15.12. Minor changes in the work. Subject to approval by the County, the Architect or Project Manager may order minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents. Such changes may be made by field order or by other written order. Such changes shall be binding on the County and the Contractor.

15.13. Field orders. Subject to approval by the County, the Architect may issue written Field Orders, which interpret the contract documents or order minor changes in the work without change in contract sum or contract time. The Contractor shall carry out such Field Orders promptly.

15.14. Limitations. Except as expressly provided by this Section, there shall be no change whatsoever in the plans and specifications and in the work. Contractor shall not vary the work, the contract documents, or change, add to or omit any element, component part, or portion of the work without the express written consent of County's Project Manger or the Architect contained in an executed change order or field order as herein provided. County shall not be liable for the cost for any extra work or any substitutions, changes, additions, omissions, or deviations from the plans and specifications unless the same have been authorized by and the cost thereof approved in writing by change order. No extension of time for performance of the work shall be allowed hereunder unless claim for such extension shall be made at the time changes in the work are ordered and such duly adjusted in writing by County and Architect. Contractor recognizes and acknowledges that timely completion of the work is paramount and that its duty is to proceed with the work in accordance with the contract documents, notwithstanding any request for change in the work, to the extent that proceeding is reasonable and feasible under the circumstances.

15.15. Review of Contract Documents. The Contractor shall carefully study and compare the Contract Documents, including but not limited to, the Agreement, general conditions, drawings, specifications, addenda, and modifications and shall at once report to the Architect and Project Manager any error, inconsistency, or omission it may discover. The Contractor shall not work without proper drawings and specifications or interpretations. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Architect and Project Manager, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the costs attributable for correction.

15.16. Requests for Information. The Contractor shall review any Request for Information (RFI), or other Contractor or subcontractor-initiated request for information prior to submission to the Architect and Project Manager to ensure that the information requested in such RFI is not already provided in the Contract Documents. RFI submittals shall come only from the Contractor (not from any subcontractors). The Contractor shall prepare the RFI in an RFI form approved by the Architect which

shall include a detailed description of the conditions, cause and/or reason for the request. The RFI shall also include a proposed resolution. Each RFI shall reference the applicable Construction Documents. A transmittal letter over a subcontractor's RFI does not constitute an approved form.

ARTICLE 16. UNCOVERING AND CORRECTION OF WORK.

16.01. Uncovering of work.

- (a) If any work is covered contrary to the request of the Architect, it must, at the request of the Project Manager, be uncovered for his observation and replaced at the Contractor's expense.
- (b) The Project Manager may ask to see any other work that has been covered prior to its inspection by the Project Manager, and the Contractor shall uncover the work. If such work is found to be in accordance with the contract documents, the cost of uncovering and replacement shall, by appropriate change order, be charged to the County. If such work is found not to be in accordance with the contract documents, the Contractor shall pay such costs unless it is found that a separate contractor caused this condition, and in that event, the County shall be responsible for the payment of such costs.

16.02. Correction of work.

- (a) The Contractor shall promptly correct all work rejected by the Project Manager as defective or as failing to conform to the contract documents whether observed before or after substantial completion and whether or not fabricated, installed, or completed. The Contractor shall bear all cost of correcting such rejected work, including the cost of the Project Manager's additional services made necessary thereby.
- (b) All such defective or non-conforming work shall be removed from the site if necessary, and the work shall be corrected to comply with the contract documents without cost to the County.
- (c) The Contractor shall bear the cost of making good all work of separate contractors destroyed or damaged by such removal or correction.

16.03. Contractor's failure to remove defective work. If the Contractor does not remove such defective or non-conforming work within a reasonable time fixed by written notice from the Project Manager, the County may remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, the County may upon ten (10) additional days' written notice sell such work at auction or a private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor including compensation for additional architectural services. If such proceeds of sale do not cover all costs, which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate change order shall be issued. Such change order shall not require the Contractor's consent to be effective. Said amount may be deducted from any payment thereafter due to the Contractor under this or any other contract with County. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the County.

16.04. Contractor's failure to correct defective work. If the Contractor fails to correct such defective or non-conforming work, the County may correct it in accordance with paragraph 31.02.

16.05. Acceptance of defective or non-conforming work. If the County prefers to accept defective or non-conforming work, it may do so instead of requiring its removal and correction, in which case a change order will be issued to reflect an appropriate reduction in the contract sum, or, if the amount is determined after final payment, it shall be paid by the Contractor. The issuance of the final certificate, final payment, or any provisions in the contract documents shall not relieve Contractor of responsibility for faulty materials, equipment, or workmanship. Contractor shall remedy any defects due to, and pay for any damage to, other work in accordance with the applicable guaranty or warranty provisions of the Contract Documents.

16.06. Emergency corrective action by County. If, in the opinion of the County, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the County or third parties or to prevent interruption of operations of the County or third parties, the County will attempt to give notice to Contractor. If Contractor cannot be contacted promptly or does not comply with the County's request for correction within a reasonable time as determined by the County, the County may, notwithstanding the provisions of this contract, proceed to make such correction or provide such attention and the costs of such correction or attention shall be charged against the Contractor. Such action by the County shall not relieve Contractor of any warranty obligations provided in this contract.

PART III. SAFETY.

ARTICLE 17. PROTECTION OF PERSONS AND PROPERTY.

17.01. Contractor's responsibility for safety. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to:

- (a) all employees on the work and all other persons who may be affected thereby;
- (b) all the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody, or control of the Contractor or any subcontractor; and
- (c) other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

17.02. Compliance with safety requirements. The Contractor shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. He shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent utilities.

17.03. Trench safety. For all trenches to be made in connection with the work, the contractor shall submit a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trenches. If such plan varies from the shoring system standards, a registered civil or structural engineer shall prepare the plan. The plan shall be reviewed, and must receive approval as adequate to protect worker safety, by the County or by a registered civil or structural engineer employed by the County, in advance of excavation. The shoring, sloping, or protective system must be at least as effective as that required by the Construction Safety Orders. See Labor Code section 6705.

17.04. Hazardous substance. The term "hazardous substance" means any substance on the list of hazardous substances established by the Director of Industrial Relations pursuant to the Labor Code section 6382, which includes asbestos, lead, toxic chemicals, contaminants, any substance designated by the Environmental Protection Agency as a hazardous substance, and other pollutants and contaminants.

(a) If Contractor encounters on the property any substance reasonably believed to be a Hazardous Substance that has not been rendered harmless, i.e., not potentially hazardous to human health, Contractor shall immediately stop work in the area affected and report the condition to the County's Project Manager and Architect in writing.

(b) Neither the Contractor nor any subcontractor shall cause or permit any Hazardous Substance to be brought upon the property or used in the work without the prior written consent of the County. Contractor and each subcontractor shall comply with all laws regarding the handling, treatment, presence, removal, storage, decontamination, cleanup, transportation, or disposal of Hazardous Substances brought onto the property by Contractor, its Subcontractors, and/or their personnel.

(c) Any handling, treatment, removal, decontamination, cleanup, transportation, disposal, or disturbance in any of Hazardous Substances shall only be performed by the Contractor or any subcontractor licensed and certified to perform the work. Any hazardous substance abatement or remediation work will be performed in such a way that is legally consistent with the recommendations of the certified County agent, appropriate governmental agencies, and all applicable laws.

(d) If there is a Hazardous Substance on the property, Contractor shall protect adjoining property and shall provide barricades, temporary fences, and covered walkways required to protect the health and safety of passersby as required by this Agreement, prudent construction practices, and all applicable laws.

17.05. Contractor's safety monitor. The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the County.

17.06. Unsafe loading. The Contractor shall not load or permit any part of the work to be loaded so as to endanger its safety.

17.07. Emergencies. In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury, or loss. Any additional compensation or

extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 15 for changes in the work.

17.08. Accidents. Contractor shall promptly report in writing to the Architect and County all accidents whatsoever arising out of, or in connection with the performance of the work, whether on or off the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, Contractor shall report the accident immediately to the Project Manager by telephone or messenger. Contractor shall thereafter promptly report the facts in writing to the Architect and County giving full details of the accident.

PART IV. PAYMENTS.

ARTICLE 18. PROGRESS PAYMENTS.

18.01. Monthly progress payments. Monthly progress payments shall be made to the Contractor, as provided in this Article.

18.02. Schedule of values. Before Contractor submits any application for payment, the Contractor shall submit to the Project Manager a schedule of values of the various portions of the work, to be used to enable the County to estimate the timing and amounts of the successive progress payments. If required by the Project Manager, the schedule shall include quantities aggregating the total contract sum, divided so as to show the Contractor's anticipated payments to subcontractors. The schedule shall be prepared in such form as may be specified in the contract documents or by the Project Manager, or as may be agreed upon by the Project Manager and the Contractor. The schedule shall include such data as the Project Manager may require substantiating its correctness. Each item in the schedule shall include its proper share of overhead and profit. This schedule, when approved by the Project Manager, shall be used only for preparing and reviewing the Contractor's applications for payment, and will not be considered as fixing a basis for additions to or deductions from the contract sum.

18.03. Application for payment. On or before the fifth day of each month, the Contractor shall submit to the Project Manager an application for payment including a schedule of values, requesting payment for the work completed up to the end of that same month, using the standard AIA form for requesting progress payments or such other form as may be prescribed by County. The application shall be itemized by task and shall be supported by such data substantiating the Contractor's right to payment as the County or the Project Manager may require.

18.04. Payment for stored materials and equipment. If payments are to be made on account of materials or equipment not incorporated in the work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the County to establish the County's title to such materials or equipment or otherwise protect the County's interest including applicable insurance and transportation to the site.

18.05. Certificates for payment. If the Contractor has made application for payment as above, the Project Manager will, with reasonable promptness but not more than ten (10) days after the receipt of the application, issue a certificate for payment to the County, with a copy to the Contractor, for such amount as he determines to be properly due, or state in writing his reasons for withholding a certificate as provided in paragraph 19.01. A payment request determined not to be a proper payment request suitable for payment will be returned to the Contractor within seven (7) days with a statement setting forth the reasons why the payment request is not proper. The final payment, if unencumbered, or any part thereof, unencumbered, shall be made not later than 60 days after completion of the work and submission of all completion documents. Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the Project Manager, stating the work for which payment is demanded has been performed in accordance with the terms of the contract. Contractor is entitled to interest pursuant to Public Contract Code Section 20104.50 if County fails to make the progress payment within 30 days after receipt of an undisputed properly submitted payment request.

18.06. Findings to issue certificate. In determining to issue a certificate of payment, the Project Manager must make the following findings, based on his observations at the site, the schedule of values, and the data included in the application for payment:

- (a) that the work has progressed to the point indicated;
- (b) that, to the best of his knowledge, information, and belief, the quality of the work is in accordance with the contract documents (subject to an evaluation of the work for conformance with the contract documents upon substantial completion, to the results of any subsequent tests required by the contract documents, to minor deviations from the contract documents correctable prior to completion, and to any specific qualifications stated in his certificate); and
- (c) that the Contractor is entitled to payment in the amount certified.

18.07. Amount of progress payment. The amount of each progress payment shall equal ninety-five percent of the estimated value of work performed up through the last day of the previous month, less the aggregate of all previous payments. The amount of the progress payment may be further reduced by any withholdings or deductions that may be taken from the payment pursuant to other provisions of this contract. For the purpose of determining the amount of any particular progress payment, the value of work completed is only an estimate; such value or estimate shall be used for no other purpose in connection with this contract and shall not be binding on County or Project Manager for any other purpose or any other payment, and County and Project Manager shall have the right to correct any error in such value or estimate for later payments.

18.08. Payment by County. Promptly after the Project Manager has issued a certificate for payment, the County shall submit the appropriate documentation to the Monterey County Auditor, who shall make payment to Contractor within 30 days thereafter. All material and work covered by payments made shall thereupon become the sole property of County, and this provision shall not be construed as relieving Contractor from the continuing responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of any right of County to require the fulfillment of all terms of this Agreement. Title to all work completed in the course of construction and to all materials, including the specifications and other documents prepared

by the Project Manager and/or the Contractor on account of which payment has been made shall be vested in County.

18.09. Limited effect of issuance of certificate or progress payment. By issuing a certificate for payment, the Project Manager shall not thereby be deemed to represent that he has made exhaustive or continuous on-site inspections to check the quality or quantity of the work or that he has reviewed the construction means, methods, techniques, sequences, or procedures, or that he has made any examination to ascertain how or for what purpose the Contractor has used the monies previously paid on account of the contract sum. Further, no certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the project by the County, shall constitute an acceptance of any work not in accordance with the contract documents.

ARTICLE 19. WITHHOLDING PAYMENTS.

19.01. Grounds for withholding payment. The Project Manager may decline to approve an application for payment and may withhold his certificate as to all or part of the payment amount requested, to the extent reasonably necessary to protect the County, if in his opinion he is not able to make the findings set forth in paragraph 18.06. The Project Manager may also decline to approve payment, in whole or in part, and, based on subsequently discovered evidence or subsequent inspections, he may nullify the whole or any part of any certificate for payment previously issued, to such extent as may be necessary in his opinion to protect the County. Such withholding of the certificate or of any amounts requested by Contractor in connection with the certificate, may be based on any of the following grounds:

- (a) defective work not remedied;
- (b) third-party claims filed or reasonable evidence indicating probable filing of such claim;
- (c) failure of the Contractor to make payments properly to subcontractors or for labor, materials, or equipment;
- (d) reasonable doubt that the work can be completed for the unpaid balance of the contract sum;
- (e) damage to another contractor;
- (f) reasonable indication that the work will not be completed within the contract time;
- (g) unsatisfactory prosecution of the work by the Contractor;
- (h) stop notices filed for any portion of the work;
- (i) failure or refusal of the Contractor to fully comply with the contract requirements; or
- (j) Contractor's failure to comply within a reasonable time with Article 17 of these conditions.

19.02. Application of withheld amounts. County may apply any such withheld amounts to payment of such claims or obligations, in County's sole discretion. In so doing, County shall be deemed the agent of Contractor and any payment so made by County shall be considered as a payment made under

contract by County to Contractor. County shall not be liable to Contractor for any such payments made in good faith. Such payments may be made without prior judicial determination of such claim or obligation. County will render to Contractor a proper accounting of any funds so disbursed on behalf of Contractor.

19.03. Payment when grounds removed. When the above grounds for withholding payment are removed by Contractor or by County, payment of the withheld amounts or the remaining balance thereof shall be made to Contractor.

ARTICLE 20. COMPLETION AND FINAL PAYMENT.

20.01. Application for final payment. When the work is complete, the Contractor shall submit to the Project Manager the following documents:

- (a) a written notice that the work is ready for final inspection;
- (b) an application for final payment;
- (c) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work for which the County might in any way be responsible, have been paid or otherwise satisfied;
- (d) the consent of the sureties, if any, to final payment; and
- (e) if required by the County, other proof (such as receipts, releases, and waivers of liens) establishing payment or satisfaction of all obligations arising out of the contract, to the extent and in such form as may be designated by the County.

20.02. Bond for outstanding claims or liens. If any person refuses to furnish a release or waiver required by the County, the Contractor may furnish a bond satisfactory to the County to indemnify and defend the County against any claim that might be made against the County or any lien that might be placed against the work on account of such person. If any such claim or lien remains unsatisfied after all payments are made, the Contractor or the surety shall pay to the County all monies that the County may be compelled to pay in discharging such claim or lien, including all costs and reasonable attorneys' fees.

20.03. Inspection and final certificate. Upon receipt of the above documents, the Project Manager will promptly inspect the work. The Architect and Project Manager shall issue a certificate for final payment, with copies to both County and Contractor, if he makes the following findings:

- (a) that the work is acceptable under the contract documents;
- (b) that the contract has been fully performed;
- (c) that to the best of his knowledge, information, and belief, and on the basis of his observations and inspections, the work has been completed in accordance with the terms and conditions of the contract documents;

- (d) that all potential liens or claims for subcontractors' services and for labor, equipment and materials on the work have been satisfied or adequately secured;
- (e) that the balance noted in the final certificate is due and payable; and
- (f) that all necessary approvals of applicable federal, state, or local agencies and/or authorities have been issued.

20.04. Determination not to issue certificate for final payment. If the Project Manager determines that the necessary findings cannot be made to issue a final certificate, the Project Manager shall promptly notify the Contractor in writing of the reasons for such determination. Contractor shall promptly thereafter take appropriate steps to remove the grounds for denial of the final certificate.

20.05. Acceptance by Board of Supervisors. Promptly after the Project Manager issues the certificate for final payment, the matter will be submitted to the County Board of Supervisors for final acceptance of the work. Work on the contract shall be deemed complete when the Board of Supervisors accepts the work. Not later than ten (10) days after such acceptance, County shall record its notice of completion.

20.06. Effect of final payment as to County. The making of the final payment by the County to Contractor hereunder shall not constitute a waiver of any claims which County may now or hereafter have against Contractor by reason of this Agreement or any other matter related to the work.

20.07. Effect of final payment as to Contractor. The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and still unsettled.

ARTICLE 21. ALTERNATIVE PAYMENT OF WITHHELD FUNDS.

21.01. Alternatives to withholding. This contract requires a five percent (5%) withholding from progress payments. Progress payments shall not be made in excess of 95 percent of the actual work completed plus a like percentage of the value of material delivered on the ground or stored subject to, or under the control of, the County, and unused. County shall withhold five (5) percent from the progress payments until final completion and acceptance of the project by the Board of Supervisors. At the Contractor's request, the County shall make payment of these funds withheld from progress payments through the use of the escrow procedures provided in this paragraph and either paragraph 21.02 or 21.03. As a prerequisite to compliance with paragraph 21.02 or 21.03, the Contractor shall select an escrow agent, who shall be the County Auditor-Controller or any state or federally chartered bank in California; the parties shall enter into an escrow agreement meeting the requirements of Public Contract Code Section 22300; and the parties shall deposit with the escrow agent the escrow agreement, the withheld portions of the progress payments that have accrued before opening of the escrow, all future withheld portions as they accrue, and all other deposits required below. The Contractor shall pay all expenses incurred in implementing the procedures set forth herein.

21.02. Alternative one: substitution of securities for withheld funds. At the Contractor's request, eligible securities provided by the Contractor, equivalent to the amount withheld, shall be deposited with the escrow agent, who shall then pay the withheld monies to the Contractor. After the initial

deposits and disbursements, the County shall deposit all additional amounts to be withheld with the escrow agent as they accrue, and if the Contractor desires their release, the Contractor shall increase the amount of the securities on deposit, if necessary, in order that the value of the securities on deposit shall equal or exceed the total of all amounts currently and previously authorized to be withheld under the contract without the substitution of securities. Upon satisfaction of that condition, the escrow agent shall immediately pay the additional withheld amounts to the Contractor. Upon satisfactory completion of the contract, the securities shall be returned to the Contractor.

21.03. Alternative two: investment of withheld funds. Alternatively, the Contractor may direct that the withheld funds deposited in the escrow be invested in eligible securities. Upon satisfactory completion of the contract, the Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from the County. The Contractor shall pay to each subcontractor, not later than 20 days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each subcontractor, on the amount of retention withheld to ensure the performance of the Contractor.

21.04. Eligible securities: interest. Securities eligible to be used under the above paragraphs shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the Contractor and the County. The parties must agree upon the value of the securities, as a condition of their deposit in the escrow. The Contractor shall be the beneficial owner of any securities deposited pursuant to this Article 21 and shall receive any interest thereon. The Contractor may withdraw interest earned on securities held in escrow at any time, without notice to the County.

21.05. Inapplicability of Article 21 to certain contracts. The provisions of this Article 21 shall not apply to contracts in which there will be financing provided by the Farmers Home Administration of the United States Department of Agriculture pursuant to the Consolidated Farm and Rural Development Act (7 U.S.C. Sec. 1921 et seq.) and where federal regulations or policies, or both, do not allow the substitution of securities.

PART V. EMPLOYMENT PRACTICES.

ARTICLE 22. APPRENTICES.

22.01. Compliance with Labor Code apprenticeship requirements. Contractor and all subcontractors shall comply with the provisions of Labor Code sections 1777.5, 1777.6, and 1777.7, when applicable, pertaining to apprentices, and with all applicable regulations there under (Title 8, Calif. Code of Regulations, sections 200 et seq., especially sections 227 et seq.), including but not limited to provisions relating to required or permitted ratios of apprentices to experienced workers. When any question exists concerning these requirements, Contractor and/or any subcontractor concerned should contact the Division of Apprenticeship Standards, 525 Golden Gate Avenue, San Francisco, CA, or one of its branch offices, prior to commencement of work. The prime contractor is responsible for ensuring compliance with this section.

22.02. State policy. It is state policy to encourage the employment and training of apprentices on public works contracts in conformity with standards set by law.

ARTICLE 23. NON-DISCRIMINATION PROVISIONS.

23.01. Non-discrimination in employment practices. Contractor shall ensure that the evaluation and treatment of its employees and applicants for employment and all persons receiving and requesting services are free of such discrimination. Contractor and any subcontractor shall, in the performance of this Agreement, fully comply with all federal, state, and local laws and regulations which prohibit discrimination. The provision of services primarily or exclusively to such target population as may be designated in this Agreement shall not be deemed to be prohibited discrimination.

23.02. "Discrimination" defined. As used in this contract, the term "discrimination" includes but is not limited to the illegal denial of equal employment opportunity, harassment (including sexual harassment and violent harassment), disparate treatment, favoritism, subjection to unfair or unequal working conditions, and/or any other prohibited discriminatory practice. The term also includes any act or retaliation.

23.03. Application of Monterey County Code, Chapter 2.80. The provisions of Monterey County Code, Title 2, Chapter 2.80, apply to activities conducted pursuant to this contract. Contractor and its officers and employees, in their actions under this contract, are agents of the Owner within the meaning of Chapter 2.80, and are responsible for ensuring that their workplace and the services that they provide are free from discrimination, as required by Chapter 2.80. Complaints of discrimination made by Contractor, subcontractor(s), or any of their employees or agents against the Owner may be investigated and resolved using the procedures established by Chapter 2.80. Contractor shall establish and follow its own written procedures for the prompt and fair resolution of discrimination complaints made against Contractor by its own employees, agents and third parties, and shall provide a copy of such procedures to County upon demand by County.

23.04. Compliance with laws. During the performance of this agreement, Contractor shall comply with all applicable federal, state, and local laws and regulations, which prohibit discrimination, including but not limited to the following:

- (a) California Labor Code section 1735;
- (b) California Fair Employment and Housing Act, Government Code sections 12900 et seq., and the administrative regulations issued thereunder, Title 2 California Code of Regulations, sections 7285.0 et seq. (Division 4 - Fair Employment and Housing Commission);
- (c) California Government Code sections 11135 - 11139.5 (Title 2, Div. 3, Part 1, Chap.1, Art. 9.5) and any applicable administrative regulations issued thereunder;
- (d) Federal Civil Rights Acts of 1964 and 1991 (see especially Title VII, 42 USC sections 2000d et seq.), as amended, and all administrative rules and regulations issued thereunder (see especially 45 CFR Part 84); and all guidelines and interpretations issued pursuant thereto;
- (e) The Rehabilitation Act of 1973, sections 503 and 504 (29 USC sections 793 and 794), as amended; all requirements imposed by the applicable HHS regulations (45 CFR Part 84); and all guidelines and interpretations issued pursuant thereto;

(f) Americans With Disabilities Act of 1990 (P.L. 101- 336), as amended, 42 USC sections 12101 et seq., and 47 USC sections 225 and 611, and any federal regulations issued pursuant thereto (see 24 CFR Chapter 1; 28 CFR Parts 35 and 36; 29 CFR Parts 1602, 1627 and 1630; and 36 CFR Part 1191;

(g) Unruh Civil Rights Act, California Civil Code sections 51 et seq.; and

(h) Monterey County Code, Title 2, Chapter 2.80, as amended and procedures issued pursuant thereto.

23.05. Written assurances. Upon request by County, Contractor will give any written assurances of compliance with the Civil Rights Acts of 1964 and 1991, as amended, the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990, as amended, and/or Executive Order 11246, as may be required by the federal government in connection with this contract, pursuant to 45 CFR Sec. 80.4 or 45 CFR Sec. 84.5 or other applicable state or federal regulations.

23.06. Written non-discrimination policy. Contractor shall maintain a written statement of its non-discrimination policies, which shall be consistent with the terms of this agreement. Such statement shall be available to Contractor's employees, the Owner, Owner's officers and employees, and members of the public, upon request.

23.07. Notice to labor unions. Contractor shall give written notice of its obligations under paragraphs 23.01 - 23.09 to labor organizations with which it has a collective bargaining or other agreement.

23.08. Access to records by government agencies. Contractor shall permit access by Owner and by representatives of the California Department of Fair Employment and Housing and the U.S. Equal Employment Opportunity Commission, and any federal and/or state agency providing funds for this contract upon reasonable notice at any time during normal business hours, but in no case on less than 24-hour notice, to such of its books, records, accounts, facilities, and other sources of information as the inspecting party may deem appropriate to ascertain compliance with these non-discrimination provisions.

23.09. Binding on subcontractors. The provisions of paragraphs 23.01 - 23.09 shall also apply to all of Contractor's subcontractors. Contractor shall include the non-discrimination and compliance provisions of these paragraphs in all subcontracts to perform work or provide services under this agreement.

ARTICLE 24. HOURS OF WORK.

24.01. Eight-hour day; 40-hour week. No work shall be performed by employees of Contractors in excess of eight (8) hours per day or 40 hours during any one week, unless such employees are compensated for all such excess hours at not less than one-and-one-half times the basic rate of pay, as provided in Labor Code Sec. 1815. Holiday work when permitted by law shall also be compensated at not less than one-and-one-half times the basic rate of pay.

24.02. Penalties. Pursuant to Labor Code Sec. 1813, the Contractor shall forfeit, as a penalty to the County, \$25 for each worker employed in the execution of the contract by the Contractor or any subcontractor under him for each calendar day during which such worker is required or permitted to

work more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code sections 1810-1815.

24.03. Approvals. Contractor will not be entitled to additional compensation for work performed outside of regular working hours, except to the extent such compensation is approved in writing by Project Manager in advance. If so approved, such compensation shall in such event cover only the direct cost of the premium portion of the time involved, when permitted, and be without any overhead or profit.

ARTICLE 25. PREVAILING WAGES.

25.01. Prevailing wage rates determined. The Director of the California Department of Industrial Relations has determined the general prevailing rate of per diem wages in the locality in which said public work is to be performed for each craft, classification or type of worker needed to execute the contract in accordance with Labor Code sections 1770-75. Copies of the prevailing rate of per diem wages are on file and shall be made available to any interested party on request in the Department of Public Works' office located at 168 West Alisal Street FL2, Salinas CA 93901. Current prevailing wage rate schedules can also be found at the California Department of Industrial Relations website located at <http://www.dir.ca.gov/DLSR/PWD/>.

25.02. Payment of prevailing wage rates required. Contractor and all subcontractors performing work under this contract shall pay wages to their workers employed on such work at not less than the general prevailing rate of per diem wages for such work, as required by Labor Code Sec. 1771.

25.03. Penalties. Failure to pay such prevailing wages shall subject the employer to the penalties set forth in Labor Code Sec. 1775.

ARTICLE 26. PAYROLL RECORDS.

26.01. Compliance with Labor Code Sec. 1776. Contractor and all subcontractors shall comply with Labor Code Sec. 1776, the requirements of which are set forth in this article. The Contractor shall be responsible for compliance with these provisions by his subcontractors.

26.02. Accurate payroll records required. Contractor and each 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.

26.03. Certification and inspection of payroll records. The payroll records enumerated under paragraph 26.02 shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor or subcontractor on the following basis:

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

(b) A certified copy of all payroll records enumerated in paragraph 26.02 shall be made available for inspection, or furnished upon request to a representative of County, the Division of Labor Standards Enforcement, or the Division of Apprenticeship Standards of the Department of Industrial Relations.

(c) A certified copy of all payroll records enumerated in paragraph 26.02 shall be made available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through the County, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. The public shall not be given access to such records at the principal offices of the Contractor.

26.04. Filing of records. The Contractor and each subcontractor shall file a certified copy of the records enumerated in paragraph 26.02 with the entity that requested such records within ten (10) days after receipt of a written request.

26.05. Elimination of personal identification. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the County, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the Contractor or subcontractor awarded the contract or performing the contract shall not be marked or obliterated. 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 (29USC 175a) shall be marked or obliterated only to prevent disclosure of an individuals name and social security number.

26.06. Notice to County concerning location of records. The Contractor and each subcontractor shall inform the County as to the location of the records enumerated under paragraph 26.02, including the street address, city, and county, and shall, within five (5) workdays, provide a notice of any change of location and address.

26.07. Notice of non-compliance; penalties. In the event of non-compliance with the requirements of this section, the Contractor or subcontractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor or subcontractor must comply with this section. Should non-compliance still be evident after such 10-day period, the Contractor or subcontractor shall, as a penalty to the County, forfeit \$25 for each calendar day, or portion thereof, for each worker, until strict compliance is effected. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.

PART VI. LEGAL RELATIONS.

ARTICLE 27. COMPLIANCE WITH LAWS.

27.01. Compliance with laws. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and orders of any public authority bearing on the performance of the work. If the Contractor observes that any of the contract documents are at variance therewith in any respect, he shall promptly notify the Project Manager in writing, and any necessary changes shall be adjusted by appropriate modification. If the Contractor performs any work knowing it to be contrary to

such laws, ordinances, rules, and regulations, and without such notice to the Project Manager, he shall assume full responsibility therefore and shall bear all costs attributable thereto. Without limitation of any other provision hereof, if Contractor performs any work which is contrary to such laws, ordinances, codes, rules and regulations, Contractor shall without additional reimbursement or extension of time make all changes and bear all costs as required to comply.

27.02. Rules of governing agencies. All work and materials shall be in full accordance with the Rules and Regulations of the State Fire Marshall, the Safety Orders of the Division of Industrial Safety, and all other applicable codes and regulations.

27.03. Compliance with uniform codes. All work and materials shall comply with the current editions of the California Building Code, the National Electric Code, the Uniform Plumbing Code, the Uniform Mechanical Code, and the Uniform Administrative Code, as adopted and amended by the local jurisdiction in which the construction project takes place.

27.04. Statutory regulation of public works. This contract is subject to all statutes of the State of California regulating the performance of work by a public agency or political subdivision of such state, and particularly the following:

Public Contract Code sections 4100-4114 (Subletting and Subcontracting Fair Practices Act).
Labor Code sections 1720-1743 (Public Works, Scope and Operation).
Labor Code sections 1770-1781 (Public Works, Wages).
Labor Code sections 1810-1815 (Public Works, Working Hours).

All work performed under this contract, whether by Contractor or by any subcontractor, shall comply with all such statutes.

27.05. Compliance with Clean Air and Clean Water Acts. Contractor and all subcontractors shall comply with the federal Clean Air Act (42 USC sections 1857 et seq. and sections 7401 et seq.) and with the federal Clean Water Act (33 USC sections 1251 et seq.) and all other applicable federal air and water pollution control rules and regulations.

27.06. Federally funded contracts. If the project for which the work under this contract is to be performed is funded in whole or in part by grants or loans from the federal government, the Contractor and all subcontractors shall comply with regulations adopted by the U.S. Secretary of Labor pursuant to 40 USC section 276c and with all other statutes, rules, and regulations that are applicable because of such federal funding.

27.07. Kickbacks and illegal withholdings of pay. Contractor and all subcontractors shall comply with the provisions of Labor Code sections 221 and 222, which prohibit kickbacks and withholdings from employee wages.

27.08. Illegal fees. Contractor and all subcontractors shall comply with the provisions of Labor Code sections 1778, 1779, and 1780, which prohibit the taking of any portion of the wages of workers employed on public works projects and the collection of certain fees from workers employed on public works projects and from applicants for such employment.

27.09. Provisions required by law deemed inserted. Each and every provision required by law to be inserted in this contract shall be deemed to be inserted herein, and the contract shall be read and enforced as though it were included herein. If through mistake or otherwise any such provision is not set forth word for word in the contract documents, or is not correctly set forth, then upon the application of either party, the contract shall forthwith be physically amended to make such insertion or correction.

27.10. Good-faith effort to hire Monterey Bay Area residents. In accordance with section 5.08.120 of the Monterey County Code, unless such requirement would conflict with a state or federal law or regulation applicable to a particular contract for a public work of improvement, all contractors and subcontractors providing work, laborers, or materialmen on the project must promise to make a good-faith effort to hire qualified individuals who are, and have been for at least one (1) year prior to the opening of bids, residents of the Monterey Bay Area in sufficient numbers so that no less than fifty percent (50%) of the Contractor's total construction work force on the project, including any subcontractor work force, measured in labor work hours, is comprised of Monterey Bay Area residents. A certification form relating to compliance with Section 5.08.120 is furnished with the bid documents. Each contractor must complete the certification form and submit the certification form with the sealed bid. The Monterey County Board of Supervisors may deem a bid non-responsive for failure to abide by the good-faith local hiring provisions of Section 5.08.120.

The Monterey County Contracts/Purchasing Agent has prescribed rules, regulations, and procedures relating to the application, administration, and interpretation of the provisions of Section 5.08.120, which include the following:

(a) "Monterey Bay Area resident" means a person who resides within the boundaries of Monterey County, Santa Cruz County, or San Benito County.

(b) A "good-faith effort to hire qualified individuals" means that the contractor will take the following or similar steps:

1. Develop a written plan to recruit Monterey Bay Area residents as part of the construction work force.
2. Contract local recruitment sources to identify qualified individuals who are Monterey Bay Area residents.
3. Advertise for qualified Monterey Bay Area residents in trade papers and a newspaper of general circulation in at least Monterey County, unless time limits imposed by the County do not permit that advertising.
4. If portions of the work are to be performed by subcontractors, identify subcontractors whose work force includes Monterey Bay Area residents.
5. Take residency into account as a factor when determining composition of construction work force and potential subcontractors for the project.
6. Require the same good faith efforts by its subcontractors.

(c) The County department administering the contract, in conjunction with the County's Equal Opportunity Officer, may periodically request evidence from each contractor that the contractor is complying with the requirements of Section 5.08.120. To this end, the contractor shall maintain accurate records documenting the following: contractor's good-faith efforts to hire Monterey Bay Area

residents; the total number of labor hours contractor's construction work force has extended to date on the project; the number of such labor hours performed by Monterey Bay Area residents; and evidence of residency of contractor's construction work force. The contractor shall require any and all subcontractors on the project to maintain records of the same information for subcontractor's work force on the project and shall require subcontractor to provide a copy of those records to contractor upon contractor's request. The Contractor shall make contractor's and subcontractors' records available to County for review and inspection within five (5) business days of the County's request.

Contractors and subcontractors are referred to the provisions of Section 5.08.120 of the Monterey County Code and the rules, regulations, and procedures adopted to implement Section 5.08.120, a copy of which are on file with the County department administering the contract, with the County's Contract/Purchasing Agent and with the County's Equal Opportunity Officer.

ARTICLE 28. PERFORMANCE AND PAYMENT BONDS.

28.01 Required bonds and amounts. The Contractor shall furnish a surety bond in an amount equal to one hundred percent (100%) of the contract sum as security for faithful performance of this contract ("Performance Bond") and shall furnish a separate surety bond in an amount at least equal to one hundred percent (100%) of the contract sum as security for the payment of all persons performing labor and furnishing materials in connection with the contract ("Payment Bond"). Both the Performance Bond and the Payment Bond must be executed by an admitted surety insurer. The form of these bonds shall be as set forth in these contract documents. Upon request of the contractor, the County will consider and accept multiple sureties on such bonds.

ARTICLE 29. INDEMNIFICATION AND INSURANCE.

29.01. Indemnification. Contractor shall indemnify, defend, and hold harmless the County, its officers, agents, and employees, from and against any and all claims, liabilities, and losses whatsoever (including damages to property and injuries to or death of persons, court costs, and reasonable attorneys' fees) occurring or resulting to any and all persons, firms or corporations furnishing or supplying work, services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims, liabilities, and losses occurring or resulting to any person, firm, or corporation for damage, injury, or death arising out of or connected with the Contractor's performance of this Agreement, unless such claims, liabilities, or losses arise out of the sole negligence or willful misconduct of the County. "Contractor's performance" includes Contractor's action or inaction and the action or inaction of Contractor's officers, employees, agents and subcontractors.

29.02. Evidence of Coverage. Prior to commencement of this Agreement, The Contractor shall provide a "Certificate of Insurance" certifying that coverage as required herein has been obtained. Individual endorsements executed by the insurance carrier shall accompany the certificate. In addition a certified copy of the policy or policies shall be provided by the Contractor upon request.

This verification of coverage shall be sent to the County Contracts/Purchasing Department, with a copy provided to the Department of Public Works, unless otherwise directed. The Contractor shall not receive a "Notice to Proceed" with the work under this Agreement until it has obtained all insurance required and such, insurance has been approved by the County. This approval of insurance shall neither relieve nor decrease the liability of the Contractor.

29.03. Qualifying Insurers. All Coverage's except surety, shall be issued by companies which hold a current policyholder's alphabetic and financial size category rating of not less than A-VII, according to the current Best Key Rating Guide or a company of equal financial stability that is approved by the County's Purchasing Manager.

29.04. General insurance requirements. Without limiting Contractor's duty to indemnify, Contractor shall maintain in effect throughout the term of this Agreement a policy or policies of insurance with the following minimum limits of liability:

1. Commercial general liability insurance, including but not limited to premises and operations, including coverage for Bodily Injury and Property Damage, Personal Injury, Contractual Liability, Broadform Property Damage, Independent Contractors, Products and Completed Operations, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.

2. Builders' Risk Insurance, for the completed value of the contracted work, on an all-risk form, excluding earthquake and flood, including as named insureds the County, Contractor and subcontractors of any tier, with any deductible not to exceed \$25,000 each loss

3. Business automobile liability insurance, covering all motor vehicles, including owned, leased, non-owned, and hired vehicles, used in providing services under this Agreement, with a combined single limit for Bodily Injury and Property Damage of not less than \$1 Million (\$1,000,000) per occurrence.

4. Workers' Compensation Insurance, if Contractor employs others in the performance of this Agreement, in accordance with California Labor Code section 3700 and with Employer's Liability limits not less than \$1 Million (\$1,000,000) each person, \$1 Million (\$1,000,000) each accident and \$1 Million (\$1,000,000) each disease.

5. Contractors' Pollution Liability. Contractor shall require abatement subcontractors to maintain throughout the term of this contract, contractors pollution liability insurance, with limits not less than \$2,000,000 each occurrence, including coverages for sudden and accidental pollution, transportation and disposal of all materials identified as pollutants by the Environmental Protection Agency, with any deductible not to exceed \$25,000 each occurrence, including as additional insureds, the County of Monterey, its officers, agents and employees.

29.05. Other insurance requirements. All insurance required by this Agreement shall be with a company acceptable to the County and issued and executed by an admitted insurer authorized to transact Insurance business in the State of California. Unless otherwise specified by this Agreement, all such insurance shall be written on an occurrence basis, or, if the policy is not written on an occurrence basis, such policy with the coverage required herein shall continue in effect for a period of three (3) years following the date Contractor completes its performance of services under this Agreement.

Each liability policy shall provide that the County shall be given notice in writing at least thirty (30) days in advance of any endorsed reduction in coverage or limit, cancellation, or intended non-renewal thereof. Each policy shall provide coverage for Contractor and additional insureds with respect to claims arising from each subcontractor, if any, performing work under this Agreement, or be

accompanied by a certificate of insurance from each subcontractor showing each subcontractor has identical insurance coverage to the above requirements.

Commercial general liability and automobile liability policies shall provide an endorsement naming the County of Monterey, its officers, agents, and employees as Additional Insureds with respect to liability arising out of the Contractor's work, including ongoing and completed operations, and shall further provide that such insurance is primary insurance to any insurance or self-insurance maintained by the County and that the insurance of the Additional Insureds shall not be called upon to contribute to a loss covered by the Contractor's insurance. The required endorsement form for Commercial General Liability Additional Insured is ISO Form CG 20 10 11-85 or CG 20 10 10 01 in tandem with CG 20 37 10 01 (2000). The required endorsement form for Automobile Additional Insured endorsement is ISO Form CA 20 48 02 99.

Prior to the execution of this Agreement by the County, Contractor shall file certificates of insurance with the County's contract administrator and County's Contracts/Purchasing Division, showing that the Contractor has in effect the insurance required by this Agreement. The Contractor shall file a new or amended certificate of insurance within five (5) calendar days after any change is made in any insurance policy which would alter the information on the certificate then on file. Additionally, Contractor shall provide certificates for subcontractors of any tier in compliance with these provisions. Acceptance or approval of insurance shall in no way modify or change the indemnification clause in this Agreement, which shall continue in full force and effect.

Contractor shall at all times during the term of this Agreement maintain in force the insurance coverage required under this Agreement and shall send, without demand by County, annual certificates to County's Contract Administrator and County's Contracts/Purchasing Division. If the certificate is not received by the expiration date, County shall notify Contractor and Contractor shall have five (5) calendar days to send in the certificate, evidencing no lapse in coverage during the interim. Failure by Contractor to maintain such insurance is a default of this Agreement which entitles County, at its sole discretion, to terminate this Agreement immediately.

29.06. Acknowledgment of workers' compensation requirements. As required by Labor Code section 1861, the Contractor and each subcontractor shall, before commencing work on the project, sign and file with the County, the following certificate:

"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 the Labor Code, and I will comply with such provisions before commencing the performance of the work of this contract."

29.07. Compliance. In the event of the failure of Contractor to furnish and maintain any insurance required by this Section, County or Architect shall have the right to take out and maintain such insurance for and in the name of the Contractor. Contractor shall pay the cost thereof and shall furnish all information necessary to obtain and maintain such insurance for the account of Contractor. County and Architect each shall also have the right to set-off the costs of obtaining and maintaining such insurance against any amounts due Contractor under the Contract Documents. Compliance by Contractor with the requirement to carry insurance and furnish certificates or policies evidencing the same contained in this Article 29 shall not relieve Contractor from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify each of the Indemnities.

29.08. Application of Insurance Proceeds.

(a) In the event of any damage to or destruction of the work from any cause insured against by the insurance required under this Article 29, or any other insurance obtained by Contractor or any other source, County may, in its sole discretion, either (i) require Contractor to repair any such damage or destruction and reconstruct the work in accordance with the contract documents, and Contractor agrees to perform any such requirement of Architect, or (ii) terminate the Contract and Contractor shall have no claim arising out of such termination. In the event the work is repaired or reconstructed, appropriate adjustments, if any, in the amount of the contract price or for the time of completion of the work shall be made by change order. County shall be given credit against any amount due Contractor under the contract documents for the amount of any insurance proceeds collected by Contractor to the extent such proceeds cover costs otherwise payable by County under the contract documents. In the event that County decides not to restore or reconstruct the work and terminates the contract, Contractor shall receive from the insurance proceeds all amounts due Contractor under the Contract for that portion of the work completed as of the date of the event of damage or destruction.

(b) In the event of any damage to or destruction of the work (i) not due to or arising out of the fault or neglect of Contractor or any subcontractor and (ii) from a cause not insured against by the insurance required under this Article 29, County may, in its sole discretion, either (i) require Contractor to repair any such damage or destruction and reconstruct the work in accordance with the Contract Documents, and Contractor agrees to perform any such requirements of Architect, or (ii) terminate the Contract. In the event County decides not to restore or reconstruct the work in accordance with the Contract Documents and cause termination of the Contract, Contractor shall have no claim arising out of such termination. In the event that work is repaired or reconstructed, appropriate adjustments, if any, in the amount of the contract price and for the time of completion of the work shall be made by change order. County shall be given credit against any amount due Contractor under the contract documents to the extent insurance proceeds payable to Contractor cover costs otherwise payable by County under the contract documents. In the event that County decides not to restore or reconstruct the work and causes termination of the contract, County shall pay Contractor, as its sole compensation, all amounts due under the Contract Documents for the portion of the work completed as of the date of the event of damage or destruction. Contractor shall be solely responsible for and shall, without cost or expense to County, promptly and with all due diligence, restore and reconstruct any uninsured loss or damage to the work which occurs as a result of any fault or neglect of the Contractor or any subcontractor. This obligation is in addition to County's remedies under the Contract Documents or by law.

ARTICLE 30. CLAIMS AND DISPUTE RESOLUTION.

30.01. Prompt resolution of differences required. It is the intention of this Article that differences between the parties arising under and by virtue of the contract be brought to the attention of the Project Manager at the earliest possible time in order that such matters may be promptly settled, if possible, or other appropriate action may be taken promptly.

30.02. Contract interpretations, performance judging, and decisions by Architect and PM.

(a) All claims may be presented informally first to the Project Manager. To the extent that resolution of the claim does not involve an extension of time or additional payments, the Project Manager may resolve, in writing or otherwise, claims that have been presented informally.

(b) The Project Manager will be, in the first instance, the interpreter of the requirements of the contract documents and the judge of the performance thereunder by both the County and Contractor. The Project Manager will, within a reasonable time, render such interpretations, as he may deem necessary for the proper execution or progress of the work. Claims, disputes and other matters in question between the Contractor and the County relating to the execution or progress of the work or the interpretation of the contract documents shall be referred initially to the Project Manager for decision which he will render in writing within a reasonable time. In his capacity as interpreter and judge, he will exercise his best efforts to ensure faithful performance by both the County and the Contractor and will not show partiality to either. All interpretations and decisions of the Project Manager shall be consistent with the intent of the contract documents.

(c) See Section 2.06 and 2.08 for the role of the Architect.

30.03. Written notice to Project Manager. Any claim for additional compensation or for an extension of time shall be resolved as hereinafter provided. The Contractor shall not be entitled to the payment of any additional compensation for any occurrence or matter relating to this contract and will not be granted any extension of time for performance under this contract, unless the Contractor first gives written notice of such claim to the Project Manager.

30.04. Contents of notice of claim. The written notice of claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, the reasons for any extension of time and, insofar as possible, the amount of the claim and the amount of any time extension requested.

30.05. Time for giving notice. The notice of claim must be given to the Project Manager as follows:

(a) If the claim is for an increase in the contract sum, he shall give the Project Manager written notice thereof within ten (10) days after the occurrence of the event giving rise to such claim; in addition, this notice shall be given by the Contractor before proceeding to execute the portion of the work to which the claim relates, except in an emergency endangering life or property, and except where the Contractor could not reasonably have discovered the facts giving rise to the claim prior to commencement of that portion of the work.

(b) All claims for extension of time shall be made in writing to the Project Manager no more than ten (10) days after the occurrence of the delay; otherwise they shall be waived. In the case of a continuing cause of delay, only one claim is necessary.

(c) In all other cases, notice shall be given within ten (10) days after the happening of the event, thing, or occurrence giving rise to the claim.

30.06. Response by County - claims for under \$50,000 and for extensions of time. For claims of less than \$50,000 and for claims for extension of time, County shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim any additional documentation supporting the claim or relating to defenses or claims the County may have against the claimant. If further information is thereafter required, it shall be requested and provided pursuant to Public Contract Code Section 20104.2(b)(2). The County's response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

30.07. Response by County - claims of \$50,000 or more and less than or equal to \$375,000. For claims of \$50,000 or more and less than or equal to \$375,000, and for all claims not covered by paragraph 30.04, County shall respond in writing to any written claim within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim any additional documentation supporting the claim or relating to defenses or claims the County may have against the claimant. If further information is thereafter required, it shall be requested and provided pursuant to Public Contract Code Section 20104.2(c)(2). The County's response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

30.08. Prompt response when needed. Whenever it appears that a prompt response is essential, County will respond to claims sooner than the limits prescribed above.

30.09. County's response disputed or not made. If the claimant disputes the County's written response, or if the County fails to respond within the time prescribed, the claimant may so notify the County, in writing, either within 15 days of receipt of the County's response or within 15 days of the County's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the County shall schedule a meet-and-confer conference within 30 days for settlement of the dispute.

30.10. Filing of Government Code claims. If the claimant still remains unsatisfied and desires to preserve his right to pursue the matter further, he must then file a claim with the County, pursuant to Government Code sections 900 et seq. or sections 910 et seq.

30.11. Civil action. If the Government Code claim is denied, the claimant may file an action in court. Such action shall be subject to Public Contract Code section 20104.4. This paragraph applies only to claims subject to Public Contract Code section 20104. If a claim is not subject to Public Contract Code section 20104, the claimant's right to file a civil action shall be as otherwise provided by law.

30.12. Claims for damages. Should either party to the contract suffer injury or damage to person or property because of any act or omission of the other party or of any of his employees, agents, or others for whose acts he is legally liable, claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage, provided that in no case may such a claim be filed after expiration of any applicable statute of limitations for filing such a claim. Claims against County that are subject to this paragraph shall comply with all procedures set forth in the California Government Code concerning claims against public entities.

30.13. Consistency with Public Contract Code sections 20104 et seq. If any claim arising under this contract is subject to the provisions of Public Contract Code sections 20104 et seq. (Div. 2, Part 3, Chapter 1, Article 1.5), and if the provisions of that Article require a procedure or procedural element different from that established in this contract, then the provisions of that Article shall apply in place of the conflicting procedure or procedural element established herein.

ARTICLE 31. DEFAULT AND TERMINATION OF THE CONTRACT.

31.01. County's right to stop work. If the Contractor fails to correct defective work or fails to supply materials or equipment in accordance with the contract documents, the County may order the Contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated.

31.02. County's rights on Contractor's default. If the Contractor fails to prosecute the work diligently or fails to perform any provision of the contract, the County may, after seven (7) days' written notice to the Contractor and without prejudice to any other remedy he may have, make good such deficiencies. In such case, any appropriate change order shall be issued deducting from the payments then or thereafter due the Contractor, the cost of correcting such deficiencies, including the cost of the Architect's and other County Contractors' additional services made necessary by such default. Such change order shall not require the consent of the Contractor to be effective. The Project Manager must approve both such action and the amount charged to the Contractor. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the County.

31.03. Termination by County.

(a) The County may terminate the performance of the Contractor under this contract, without prejudice to any other right or remedy the County may have, in the manner hereinafter provided, upon certification by the Project Manager that the following circumstances have arisen:

1. the Contractor is adjudged a bankrupt, or makes a general assignment for the benefit of his creditors, or a receiver is appointed on account of his insolvency (except as provided in (e), below);
2. the Contractor refuses or fails, except in cases for which an extension of time is provided, to supply enough properly skilled workers or proper materials;
3. the Contractor fails to make prompt payment to subcontractors, to suppliers of materials or equipment, or to employees;

4. the Contractor disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
6. the Contractor otherwise is guilty of a substantial violation of the contract.

(b) To terminate the performance of the Contractor, County shall first give ten days' written notice to Contractor and his surety, if any, stating County's intent to terminate the performance of the Contractor unless within ten days the grounds for such termination have been removed, and giving his reasons therefore.

(c) If within ten days the grounds for termination are not removed, County may immediately terminate the performance of the Contractor and shall promptly serve notice of termination on the Contractor and the surety. The surety shall have the right to take over and perform the contract, provided that, within fifteen days after service upon it of said notice of termination, the surety must first give written notice to County that it intends to take over and perform the contract, and within thirty days after service upon it of said notice of termination, the surety must commence performance of the contract. If surety fails to take either of these steps in a timely manner, County may immediately take possession of the Site and of all materials, equipment, tools, construction equipment, and machinery thereon owned by the Contractor and may finish the work by whatever method it may deem expedient.

(d) If within ten (10) days of County's notice of intent to terminate, the grounds for termination are not removed, the Contractor shall not be entitled to receive any further payment until the work is finished. If, upon completion of the work by County, the unpaid balance of the contract sum exceeds the costs of finishing the work (including compensation for additional architectural, managerial, and administrative services), such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor or his surety shall pay the difference to the County. The costs incurred by the County as herein provided shall be certified by the Project Manager.

(e) Notwithstanding the foregoing, performance of the Contractor under this contract may not be terminated, and the contract may not be modified where a trustee in bankruptcy has assumed the contract pursuant to 11 U.S.C. Sec. 365.

31.04. Termination by Contractor.

(a) The Contractor may, upon seven day written notice to the County and the Project Manager, terminate the contract if the work is stopped for a period of forty-five days under an order of any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a subcontractor or their agents or employees or any other person performing any of the work under a contract with the Contractor.

(b) To terminate the contract, the Contractor must give written notice to County of such termination, stating the reasons therefore.

(c) The Contractor may then recover from the County payment for all work executed, for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery,

for lost profits, and for all other damages suffered by the Contractor on account of such stoppage of work.

31.05. Termination for Convenience of the County.

(a) The performance of work under this contract may be terminated by County in accordance with the section in whole, or from time to time in part, whenever the County shall determine that termination is in the best interest of the County. Any such termination shall be effected by delivery to Contractor of a Notice of Termination specifying the extent to which performance of work under the contract is terminated, and the date upon which such termination becomes effective.

(b) After receipt of a Notice of Termination, and except as otherwise directed by the County, Contractor shall:

1. stop work under the contract on the date and to the extent specified in the Notice of Termination;
2. place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the work under the contract as is not terminated;
3. terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination;
4. assign to County all the right, title, and interests of Contractor under the orders and subcontracts so terminated, in which case Contractor shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontractors if so directed by County;
5. settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, subject to the approval of the County;
6. complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and
7. take such action as may be necessary, or as County may direct, for the protection and preservation of the property related to this contract which is in the possession of the Contractor and in which County has, or may acquire, an interest.

(c) After receipt of a Notice of Termination, the Contractor shall submit to County a verified termination claim. Such claim shall be submitted promptly, but in no event later than 30 days from the effective date of termination, unless one or more extensions in writing are granted by the County upon request of Contractor made in writing within such period or authorized extension of the period.

(d) Contractor and County may agree upon the whole or any part of the amount or amounts to be paid to Contractor by reason of the total or partial termination of work pursuant to this article, which amount or amounts may included a reasonable allowance for profit on work done; provided that the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not terminated does not exceed the contract sum.

ARTICLE 32. WARRANTIES.

32.01. Warranty as to all work. The Contractor shall guarantee all work performed under this contract against defective materials or workmanship for a period of one year from the date of final acceptance by the County, or for such longer time period as may be prescribed by law or by the terms of any applicable special guarantee required by the contract. The Contractor shall remedy any defects appearing within that time period and pay for any damage resulting there from.

32.02. Repair of defective work. Contractor shall, within a reasonable time but in no case longer than fifteen (15) days after receipt of written notice thereof, repair and/or replace any defects in materials or workmanship which may develop during said one-year period and any damage resulting from the repairing or replacing of such defects at his own expense and without cost to County. In the event Contractor fails to remedy any such defect within such reasonable time, County may proceed to have such defects remedied at Contractor's expense, and Contractor shall pay the costs and charges incurred thereby and any other damages of County. Nothing contained in this paragraph shall operate to relieve Contractor from responsibility after one year from the date of final acceptance of the completed work by County as regards damages resulting from defects, both latent and patent, departures from the requirements of the contract, fraud, or such other gross mistakes as amount to fraud, and Contractor shall indemnify, defend and save County harmless from and against liability, loss or damage arising by reason of any and all such matters. Contractor shall transfer to County all guarantees and warranties on equipment included within the project which Contractor receives from materialpersons and subcontractors. Neither acceptance nor payment nor any provision in these documents shall be deemed a waiver by County nor relieve Contractor of any responsibility under the contract. Notwithstanding the above, failure by the Contractor to take corrective action within 24 hours after personal or telephonic notice by the County on items affecting use of facility, safety, or the preservation of property, will result in the County taking whatever correction action it deems necessary. All costs resulting from such action by the County will be claimed against Contractor or, if necessary, the Contractor's performance bond.

32.03. Title free of liens at time of each progress payment. The Contractor warrants and guarantees that title to all work, materials, and equipment covered by an application for payment, whether incorporated in the project or not, will pass to the County upon the receipt of such payment by the Contractor, free and clear of all liens, claims, security interests, or encumbrances.

32.04. Warranty as to liens. No materials, supplies, or equipment for work under this contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by seller or supplier. Contractor warrants good title to all materials, supplies, and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to County free from claims, liens, or charges. Contractor further agrees that neither he nor any person, firm, or corporation furnishing any materials or labor for any work covered by this contract shall have any right to any lien upon the premises or any improvement or appurtenance thereon. Nothing contained in this article, however, shall defeat or impair the right of persons furnishing material or labor under any bond given the Contractor for their protection or any rights under any law permitting such persons to look to funds due Contractor in the hands of the County, and this provision shall be inserted in all subcontracts

and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

32.05. Other Warranties. In addition to the warranties in the Contract Documents, Contractor shall assign to County through Architect all assignable warranties it obtains from manufacturers or suppliers with respect to any materials, equipment, or fixtures incorporated into the work, but the assignment shall not relieve Contractor of any of its guaranties or obligations. Contractor's guaranties and the Contract Documents shall not act as a bar to Contractor's liability for any third-party claim against Contractor, and are in addition to, not exclusive of, Contractor's other obligations under the Contract Documents, including, without limitation, Contractor's obligation to indemnify and defend County and Architect.

32.06 No Limitations. Nothing in this Article 32 shall be construed to establish a period of limitation with respect to any latent or patent defects in the work or claims or liabilities arising there from. The establishment of time periods relates only to the specific obligation of Contractor to correct or cause correction of the work, and has no relationship to the time within which its obligation to comply with the contract documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to its obligations under the contract documents or in connection with the work.

PART VII. MISCELLANEOUS.

ARTICLE 33. MISCELLANEOUS PROVISIONS.

33.01. State audits. If this contract involves the expenditure of public funds in excess of \$10,000, the contracting parties shall be subject to the examination and audit of the State Auditor of the State of California for a period of three (3) years after final payment under the contract, as required by Government Code Sec. 8546.7. The examination and audit shall be confined to those matters connected with the performance of the contract, including, but not limited to, the costs of administering the contract.

33.02. Governing law. The contract shall be governed by the law of the State of California.

33.03. No assignment. Neither party to the contract shall assign the contract without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder, without the previous written consent of the County. Should any money due or to become due under this contract be assigned, it shall be subject to a prior lien for services rendered or material supplied for performance of work under this contract in favor of all persons, firms, or corporations rendering such services or supplying such materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure, and/or the Government Code.

33.04. Binding on successors and assigns. The County and Contractor each binds himself, his partners, successors, assigns, and legal representatives to the other party hereto and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants, agreements, and obligations contained in the contract documents.

33.05. Notices. All notices required or permitted to be given under this contract shall be in writing and shall be deemed to have been duly served (a) when delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or (b) 48 hours after the notice is placed in the U.S. mail, properly addressed to the party to whom the notice is to be delivered, for mailing by registered or certified mail, with postage thereon fully prepaid. The proper address shall be that previously specified in writing by the proposed recipient as the address for mailing notice, or, if none, then the last business address for the recipient known to the person giving the notice.

33.06. Contractual rights and remedies not exclusive. The duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies, otherwise imposed or available by law, except as otherwise specified herein.

33.07. Assignment of anti-trust causes of action. The Contractor and all subcontractors are bound by Public Contract Code section 7103.5, which provides as follows: "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 USC section 15) or under the Cartwright Act (Chapter 2, commencing with section 16700, of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties."

33.08. Royalties and patents. The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the County harmless from loss on account thereof, except that the County shall be responsible for all such loss when a particular design, process, or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process, or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Architect.

33.09. Prohibited interests. No official of County who is authorized in such capacity and on behalf of County to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the project, shall become directly or indirectly interested financially in this contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for County who is authorized in such capacity and on behalf of County to exercise any executive supervisory or other similar functions in connection with construction of the project shall become directly or indirectly interested financially in this contract or in any part thereof.

33.10. No continuing waiver. A waiver of rights by County or Contractor in one instance hereunder does not constitute a waiver of rights in any similar instance thereafter.

33.11. Taxable possessory interest. The terms of this document may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to this document, the private party may be subjected to the payment of personal property taxes levied on such interest.

SPECIAL CONDITIONS

142 W. ALISAL ST, SALINAS, CA OLD JAIL-ROOF REPLACEMENT AND LIMITED WEATHERIZATION

PROJECT NO. 8820 BID PACKAGE NO. 10362

The special conditions below are included as part of the contract for the above project.

1. Starting and completion date. Under Article 12 of the General Conditions, the Contractor shall commence and complete work within the following time limits:

The duration to execute the scope of work for the above project is ***FORTY-FIVE (45)*** days as it pertains to Contractor's Scope of Work for base bid and alternates defined by the contract documents. Additionally, Contractor shall coordinate their work with all other Contractors whose work is affected by the Scope of Work defined in this Agreement. Contractor expressly agrees to provide appropriate labor, material, and equipment in response to adjustments in the Project Schedule made by the Architect during the course of the project in order to maintain the required progress.

2. Hours of work. Work will not commence earlier than 7 a.m. without written consent of the County.

3. Site Cleanup. All construction materials, equipment and debris shall be removed from the area of work prior to the opening of the next business day. All existing equipment affected by the work are to be covered. All coverings are to be removed and the area affected by the construction cleaned prior to the opening of the next business day.

4. Utilities, Disruption of Service. Contractor shall notify the County's representative, in writing, five (5) workdays in advance of any disruption of service, e.g., fire suppression, electrical, water, and the Contractor shall not proceed with the work without written authorization from the County's representative.

5. Liquidated damages. Pursuant to the Agreement and Article 12 of the General Conditions, the amount of liquidated damages shall be ***Two Thousand Dollars (\$2,000)*** per day.

6. Agreement and bonds. Contractor will provide specified number of originals for each of the following:

- | | |
|------------------------------|---|
| <u>4</u> Executed Agreements | <u>4</u> Performance Bond |
| <u>4</u> Payment Bond | <u>4</u> Certificate of Liability Insurance with endorsements |

7. Contract documents furnished to Contractor. The number of original of the contract documents to be provided under Article 3 of the General Conditions is as follows:

- 1 fully executed Agreement
- 1 copy each Addendum
- 1 copy Project Manual
- 1 copy Plans and Specifications

8. Supervision. Section 7.05 of the General Conditions require that Contractor employ a competent, qualified superintendent shall provide full time, on-site supervision of all aspects of the work and further require that such superintendent and project manager be satisfactory to the County. If Contractor fails to have such superintendent on-site at any time during the progress of the work, a penalty of Fifteen Hundred Dollars (\$1500.00) per day shall be deducted from the compensation otherwise due to Contractor, for each day on which such failure occurs. Such penalty shall not apply to temporary absences approved in advance by the Architect or County.
9. Owner's Representative. Article 5 and 7. All coordination must be made with the Project Manager. All communication with the Project Manager must be made by the Contractor's Superintendent or Project Manager to maintain control and to prevent misunderstandings. All communication with the Contractor and the County will be in writing.
10. County's Use of Premises. Construction work to accommodate the Owner's continued access to and use of the premises during the construction period; coordinate the construction schedule and operations with the Architect.
11. Determining cost for change orders. Section 15.04 of the General Conditions designates the maximum markups allowed by the County.
12. Material Safety Data Sheets (MSDS). Article 14 and 17. MSDS sheets are required on-site for all materials used in the job.
13. Determination of lowest responsible bidder: The lowest bidder will be determined for the project by adding its base bid plus additive alternates #1, #2, and #3.
14. Audit rights. With respect to any Change in the Work, other than one based on an agreed lump sum price, resulting in an increase in the contract sum or extension of the contract time, the Contractor shall cause its subcontractors and sub-subcontractors to afford access to the County at all reasonable times to any books, correspondence, instructions, receipts, vouchers, memoranda, and records of any kind relating thereto, all of which each of them shall maintain for a period of at least three (3) years from and after the date the County makes payment on account of such Change in the Work. The Contractor and its subcontractors and sub-subcontractors shall make the same available within three (3) calendar days following notification to the Contractor of the County's intent to audit, failing which the Contractor's claim for an increase in the contract sum and/or extension of the contract time, as applicable, shall be disallowed, and the Contractor shall have no recourse on account of such disallowance. The Contractor authorizes the County, and shall cause its subcontractors and sub-subcontractors to authorize the County, to check directly with any suppliers of labor and material with respect to any item chargeable to the County under this article, to confirm balances due and to obtain sworn statements and waivers of lien, all if the County so elects.
15. As-built drawings. Per General Conditions Article 8.06. Contractor will be required to maintain a current set of as-built drawings throughout the duration of the project. A reproducible set of plans and working details, marked to record all changes made during construction, shall be delivered to the Project Manager for the County upon completion of the work and prior to release of final payment.

16. Partnering. This contract imposes an obligation of good faith and fair dealing in its performance and enforcement. The County intends to encourage the foundation of a cohesive partnership with the Contractor and its principal subcontractors and suppliers. The objectives are effective and efficient contract performance and completion within budget, on schedule, and in accordance with the contract documents.

17. Prevailing Wages – Payment and Posting Requirements. The Department of Industrial Relations has determined the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft or type of worker needed to execute the contract. It shall be mandatory upon the General Contractor, and upon any subcontractor under him, to pay not less than said specified rates to all workers employed by them in the execution of the contract. The General Contractor is also required to post a copy of the determination of the director of the prevailing rate of per diem wages at the job site (Cal Lab Code 1773.2).

18. Meetings. Contractor will be responsible for attending brief weekly meetings during this contract. The meetings shall be attended by the Contractor's project superintendent and will be located on-site at the project. The Contractor shall bear the administrative costs of their attendance.

SECTION 01100 SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 PROJECT DESCRIPTION

- A. The work to be done under the Contract and in accordance with the Contract Documents consists of performing, installing, furnishing, and supplying all materials, equipment, labor and incidentals necessary or convenient for the installation of that shown, described, and/or indicated on the Contract Documents prepared herewith.

- B. The work consists of but is not necessarily limited to:

Work to be done for the base bid elements consists, in general, of the installation of a new roof system, re-caulking of four distinctive arched windows and repair of front concrete steps, all at the Administrative Wing; and removal of the exercise yard enclosure on the facility's west side. Work to be done for additive alternate bids consists of re-roofing of decks immediately adjacent to the Administrative Wing and the placement of a temporary roofing system over the deck comprising the surface of the former exercise yard. The lowest bidder will be determined for the project by adding its base bid plus additive alternates #1, #2, and #3.

1.3 WORK UNDER OTHER CONTRACTS

- A. Separate contracts have been let to other contractors for various projects on the County's premises. The Contractor for this contract will be required to schedule and coordinate as necessary this work so as not to conflict with work by other contractors on the premises.

1.4 WORK SEQUENCE

- A. The Work will be conducted in a single phase to provide the least possible interference to the activities of the County's personnel. The work will begin as soon as practicable and shall be pursued to a timely completion within 45 calendar days of Notice to Proceed or sooner as practicable.
- B. Restriction of work hours shall be as defined by the County's Project Manager. Contractor shall submit a detailed work plan with the bid addressing the work to be performed on the Project including a description of mobilization and methods necessary to mitigate rain conditions and delays.
- C. Contractor may work regular business hours, Monday thru Friday 7am to 5pm and may arrange extended work hours and weekend access to meet with aggressive scheduling measures.

1.5 CONTRACTOR USE OF PREMISES

- A. General: Limit use of the premises to construction activities in areas indicated. Confine operations to areas within contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed or accessed. Keep non-work areas clear of

equipment, material and debris at all times.

- B. Keep driveways and entrances serving the premises clear and available to the County and the County's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site. Specific staging areas for contractor's materials and equipment to be defined by Project Manager.

1.6 COUNTY OCCUPANCY

- A. Full County Occupancy at adjacent facilities. The County will occupy sites adjacent to the project area during the entire construction period. Cooperate with the County during construction operations to minimize conflicts and facilitate County usage. Perform the Work so as not to interfere with the County's operations.

1.7 MISCELLANEOUS PROVISIONS

- A. The Contractor shall provide adequate protection to the work, his workmen, the General Public, and the County's property.
- B. The Contractor shall use all means and precautions necessary to insure on site safety during construction. All OSHA construction requirements covering a project of this type will be required of the Contractor.
- C. All fencing and security measures must be implemented before work starts.
- D. The Contractor shall do all cutting, fitting, and patching of his work that may be required to make its several parts come together properly as shown upon or reasonably implied from the drawings and specifications for the completed Project.
- E. The Contractor shall be held responsible for any cost caused by defective or ill-timed work. Except as otherwise expressly provided in the Contract Documents, the Contractor shall not cut or alter any work without the consent of County.
- F. All alteration work shall be executed in accordance with the drawings and in conformity with the specification section for the class of work concerned. Materials and finishes shall match the existing work as closely as possible, unless shown, indicated, or scheduled to be otherwise.

PART 2 - PRODUCTS: (Not applicable).

PART 3 - EXECUTION (Not applicable).

END OF SECTION

SECTION 01200 PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Applications for payment.
- B. Change procedures.
- C. Defect assessment.

1.2 APPLICATIONS FOR PAYMENT

- A. Submit one copy of each application for payment on Contractor's formatted invoice form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Submit at one month intervals and upon Substantial Completion of Work.
- D. Substantiating Data: When Owner requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
 - 1. Partial release of liens from major subcontractors and vendors.
 - 2. Affidavits attesting to off-site stored products.

1.3 CHANGE PROCEDURES

- A. Submittals: Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. The County will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions in the most appropriate format.
- C. The County may issue a Proposal Request and/or a Notice of Change including a detailed description of proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with stipulation of overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within 10 days.
- D. Contractor may propose changes by submitting a request for change to County, describing proposed change and its full effect on the Work. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation and a statement describing effect on Work by separate or other Contractors.
- E. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order as approved by Owner.

- F. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Change Order.
- G. Construction Change Directive: Owner may issue directive, on appropriate format, signed by Owner, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.
- H. Document each quotation for change in cost or time with sufficient data to allow evaluation of quotation.
- I. Execution of Change Orders: Owner will issue Change Orders for signatures of parties as provided in Conditions of the Contract.
- J. Correlation Of Contractor Submittals:
 - 1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
 - 2. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
 - 3. Promptly enter changes in Project Record Documents.

1.4 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the Owner it is not practical to remove and replace the Work, the Owner will direct appropriate remedy or adjust payment.
- C. Authority of Owner to assess defects and identify payment adjustments is final.
- D. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products not completely unloaded from transporting vehicle.
 - 4. Products placed beyond lines and levels of required Work.
 - 5. Products remaining on hand after completion of the Work.
 - 6. Loading, hauling, and disposing of rejected products.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01300 ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Field engineering.
- C. Preconstruction meeting.
- D. Site mobilization meeting.
- E. Progress meetings.
- F. Pre-installation meetings.
- G. Cutting and patching.
- H. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD ENGINEERING

Not used

1.4 PRECONSTRUCTION MEETING

- A. Owner will schedule meeting after Notice to Proceed.
- B. Attendance Required: County and Contractor.
- C. Agenda:
 - 1. Distribution of Contract Documents.
 - 2. Submission of list of products, schedule of values, and progress schedule.
 - 3. Designation of personnel representing parties in Contract, and County.
 - 4. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 5. Scheduling.
 - 6. Use of Premises by Contractor

7. Facilities and utilities provided by Owner.
 8. Access and Security on site
- D. Record minutes and distribute copies within two days after meeting to participants, with one copy to County, and those affected by decisions made.

1.5 SITE MOBILIZATION MEETING

- A. Owner will schedule meeting at Project site prior to Contractor occupancy.
- B. Attendance Required: Owner, Contractor, Contractor's Superintendent, and major Subcontractors.
- C. Agenda:
1. Use of premises by Owner and Contractor.
 2. Owner's requirements.
 3. Construction facilities and controls provided by Owner.
 4. Temporary utilities provided by Owner.
 5. Survey and building layout.
 6. Security and housekeeping procedures.
 7. Schedules.
 8. Application for payment procedures.
 9. Procedures for testing.
 10. Procedures for maintaining record documents.
 11. Requirements for start-up of equipment.
 12. Inspection and acceptance of equipment put into service during construction period.
- D. Record minutes and distribute copies within two days after meeting to participants, with one copy to County, and those affected by decisions made.

1.6 PROGRESS MEETINGS

Not used.

1.7 PRE-INSTALLATION MEETINGS

- A. When required in individual specification sections, convene pre-installation meetings at Project site prior to commencing work of specific section.
- B. Require attendance of parties directly affecting, or affected by, Work of specific section.
- C. Notify County four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
1. Review conditions of installation, preparation and installation procedures.
 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with one copy to County, and those affected by decisions made.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
1. Structural integrity of element.
 2. Integrity of weather-exposed or moisture-resistant elements.
 3. Efficiency, maintenance, or safety of element.

4. Visual qualities of sight exposed elements.
 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work, and to:
1. Fit the several parts together, to integrate with other Work.
 2. Uncover Work to install or correct ill-timed Work.
 3. Remove and replace defective and non-conforming Work.
 4. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.
- E. Restore Work with new products in accordance with requirements of Contract Documents.
- F. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- H. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- I. Identify hazardous substances or conditions exposed during the Work to County for decision or remedy.

3.2 SPECIAL PROCEDURES

- A. Materials: As specified in product sections; match existing with new products [and salvaged products] for patching and extending work.
- B. Employ skilled and experienced installer to perform alteration work.
- C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- E. Remove debris and abandoned items from area and from concealed spaces.
- F. Prepare surface and remove surface finishes to permit installation of new work and finishes.
- G. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- H. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original condition.
- I. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- J. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to County for review.
- K. Where change of plane of 1/4 inch or more occurs, submit recommendation for providing smooth transition to County for review.
- L. Refinish trim to original condition.
- M. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- N. Finish surfaces as specified in individual product sections.

END OF SECTION

SECTION 01330 SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed products list.
- D. Product data.
- E. Shop drawings.
- F. Samples.
- G. Design data.
- H. Test reports.
- I. Certificates.
- J. Manufacturer's instructions.
- K. Manufacturer's field reports.
- L. Erection drawings.
- M. Construction photographs.

1.2 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Contractor form acceptable to County.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- C. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite Project, and deliver to County at business address. Coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- G. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and County review stamps.
- I. When revised for resubmission, identify changes made since previous submission.

- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- K. Submittals not requested will not be recognized or processed.

1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit preliminary outline Schedules within 15 days after date established in Notice to Proceed for coordination with County's requirements. After review, submit detailed schedules within 15 days modified to accommodate revisions recommended by County.
- B. Submit revised Progress Schedules with every Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- F. Revisions To Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
 - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect [including effect of changes on schedules of separate contractors].

1.4 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

- A. Product Data: Submit to County for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit number of copies Contractor requires, plus one copy that County will retain.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

- E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700 - Execution Requirements.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Submit to County for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Submit number of opaque reproductions Contractor requires, plus one copy that County will retain.
- D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700 - Execution Requirements.

1.7 SAMPLES

- A. Samples: Submit to County for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Samples For Selection as Specified in Product Sections:
 - 1. Submit to County for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes from full range of manufacturers' standard colors, for County selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit number of samples specified in individual specification sections; County will retain one sample.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.
- G. Samples will not be used for testing purposes unless specifically stated in specification section.
- H. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes described in Section 01700 - Execution Requirements.

1.8 DESIGN DATA

- A. Submit one copy to County for files.
- B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.9 TEST REPORTS

- A. Submit one copy for County for files.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.10 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to County, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to County.

1.11 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to County in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.12 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for County's benefit.
- B. Submit report within 30 days of observation to County for information.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01400 QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances.
- C. References.
- D. Testing and inspection services.
- E. Manufacturers' field services.
- F. Examination.
- G. Preparation.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from County before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from County before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Contract Documents, request clarification from County before proceeding.
- E. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of County shall be altered from Contract Documents by mention or inference otherwise in reference documents.

1.5 TESTING AND INSPECTION SERVICES

- A. County will employ and pay for specified services of an independent firm to perform testing and inspection.
- B. The independent firm will perform tests, inspections and other services specified in individual specification sections and as required by County.
 - 1. Laboratory: Authorized to operate in State of California.
 - 2. Laboratory Staff: Maintain full time registered Engineer or specialist on staff to review services.
 - 3. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to National Bureau of Standards or accepted values of natural physical constants.
- C. Testing, inspections and source quality control may occur on or off project site. Perform off-site testing as required by County.
- D. Reports will be submitted by independent firm to County, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

1. Notify County and independent firm 24 hours prior to expected time for operations requiring services.
 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- F. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- G. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by same independent firm on instructions by County. Payment for re-testing or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

SECTION 01500 TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 1. Temporary electricity.
 - 2. Telephone service.
 - 3. Facsimile service.
 - 4. Temporary sanitary facilities.
- B. Construction Facilities:
 - 1. Parking.
 - 2. Progress cleaning and waste removal.
- C. Temporary Controls:
 - 1. Barriers.
 - 2. Enclosures and fencing.
 - 3. Security.
 - 4. Dust control.
 - 5. Noise control.
- D. Removal of utilities, facilities, and controls.

1.2 TEMPORARY ELECTRICITY

- A. Where possible, Contractor will provide and use portable power. Where impractical, utilize County's existing power service. County will pay cost of energy used. Exercise measures to conserve energy.

1.3 FACSIMILE SERVICE

- A. Provide off-site facsimile.

1.4 TEMPORARY SANITARY FACILITIES

- A. Existing facilities located at project site may not be used during construction operations. Contractor is to provide and maintain in sanitary condition adequate, properly stocked temporary facilities at the location to be determined by the County's Project Manager.

1.5 PARKING

- A. Use of existing on-site streets and driveways used for construction traffic is permitted.
- B. Use of designated areas of existing parking facilities by construction personnel is permitted.

1.6 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing spaces.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from site daily and dispose off-site.

1.7 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide protection for plants designated to remain. Replace damaged plants.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.8 ENCLOSURES AND FENCING

- A. Interior Enclosures:
 - 1. Provide temporary partitions as indicated on Drawings to separate work areas from County occupied areas, to prevent penetration of dust and moisture into County occupied areas, and to prevent damage to existing materials and equipment.
 - 2. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

1.9 SECURITY

- A. Security Program:
 - 1. Protect Work, existing premises, and County's operations from theft, vandalism, and unauthorized entry.
- B. Personnel Identification:
 - 1. County will issue badging daily to all construction personnel. Construction personnel will return badges at the close of the work shift to superintendent for return to County.
 - 2. Maintain list of accredited persons, submit copy to County on request.

1.10 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into ventilation.

1.11 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise from tools, generators and other construction operations.

1.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01600 PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Product substitution procedures.
- F. Equipment electrical characteristics and components.

1.2 PRODUCTS

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- C. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.

- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Provide off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for any manufacturer not named in accordance with the following article.

1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. Instructions to Bidders specify time restrictions for submitting requests for Substitutions during bidding period to requirements specified in this section.
- B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.

2. Will provide same warranty for Substitution as for specified product.
 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to County.
 4. Waives claims for additional costs or time extension which may subsequently become apparent.
 5. Will reimburse County for review or redesign services associated with re-approval by authorities having jurisdiction.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.
- F. Substitution Submittal Procedure:
1. Submit one copy of request for Substitution for consideration. Limit each request to one proposed Substitution.
 2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01700 EXECUTION REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Starting of systems.
- D. Demonstration and instructions.
- E. Testing, adjusting and balancing.
- F. Protecting installed construction.
- G. Project record documents.
- H. Operation and maintenance data.
- I. Manual for materials and finishes.
- J. Manual for equipment and systems.
- K. Spare parts and maintenance products.
- L. Product warranties and product bonds.
- M. Maintenance service.

1.2 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for County's review.
- B. Provide submittals to County required by authorities having jurisdiction.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- D. County will occupy all portions of building as specified in Section 01100 - Summary.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.

- B. Clean interior and exterior glass, surfaces exposed to view in the work areas; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures. Clean/Replace filters of operating equipment.
- D. Clean debris from roofs, gutters, downspouts, and drainage systems.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 STARTING OF SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify County 2 days prior to start-up of each item.
- C. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- D. Verify wiring and support components for equipment are complete and tested.
- E. Execute start-up under supervision of applicable Contractors' personnel in accordance with manufacturers' instructions.
- F. Submit a written report in accordance with Section 01330 - Submittal Procedures that equipment or system has been properly installed and is functioning correctly.

1.5 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to County's personnel two weeks prior to date of Substantial Completion.
- B. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with County's personnel in detail to explain all aspects of operation and maintenance.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time agreed time at equipment location.
- D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- E. Required instruction time for each item of equipment and system is specified in individual sections.

1.6 TESTING, ADJUSTING AND BALANCING

- A. Not used.

1.7 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- D. Prohibit traffic from landscaped areas.

1.8 PROJECT RECORD DOCUMENTS

- A. Maintain on-site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, Product Data, and Samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by County.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings [and Shop Drawings]: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish [first] [main] floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract drawings.
- G. Submit documents to County with claim for final Application for Payment.

1.9 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three D side ring binders with durable covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project ...
- C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- E. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Originals of warranties and bonds.

1.10 MANUAL FOR MATERIALS AND FINISHES

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. County will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by County, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy will be reviewed and returned after final inspection, with County comments. Revise content of document sets as required prior to final submission.
- D. Submit two sets of revised final volumes in final form within 10 days after final inspection.

- E. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.
- F. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- G. Additional Requirements: As specified in individual product specification sections.
- H. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.11 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. County will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by County, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy will be reviewed and returned after final inspection, with County comments. Revise content of document sets as required prior to final submission.
- D. Submit two sets of revised final volumes in final form within 10 days after final inspection.
- E. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- F. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.
- G. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- H. Include servicing and lubrication schedule, and list of lubricants required.
- I. Include manufacturer's printed operation and maintenance instructions.
- J. Include sequence of operation by controls manufacturer.
- K. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- L. Include control diagrams by controls manufacturer as installed.

- M. Include Contractor's coordination drawings, with color-coded piping diagrams as installed.
- N. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- O. Include list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- P. Include test and balancing reports as specified in Section 01400 - Quality Requirements.
- Q. Additional Requirements: As specified in individual product specification sections.
- R. Include listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

1.12 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Project site and/or alternate site within Monterey County as directed by County Project Manager; obtain delivery receipt prior to final payment.

1.13 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include Table of Contents and assemble in three D side ring binder with durable cover.
- F. Submit prior to final Application for Payment.
- G. Time Of Submittals:
 1. For equipment or component parts of equipment put into service during construction with County's permission, submit documents within ten days after acceptance.
 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

1.14 MAINTENANCE SERVICE

- A. Furnish service and maintenance of components indicated in specification sections.
- B. Examine system components at frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by manufacturer of original component.
- D. Do not assign or transfer maintenance service to agent or Subcontractor without prior written consent of County.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION



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Old Jail Roof Replacement and Weatherization
Old Jail
142 West Alisal Street
Salinas CA

Project 8820
Bid No. 10362

Project manager:

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099113 Exterior Painting

221426.13 Roof Drainage

Hazardous Materials Reports and Removal Specifications

**SECTION 00 24 00
PROCUREMENT SCOPE
(Master Scope of Work)**

- A. Roof sections 9 and 10 shall be add alternate #1. Roof section 11 (refer to A2) shall be bid as add alternate #2.
- B. Exercise Patio Deck:
 - 1. Provide 45 mil temporary roofing as specified in section 07 54 00 Thermoplastic Membrane Roofing at the Exercise Patio Deck. This shall be add alternate #3.
 - 2. Provide heavy visqueen plastic covering Exercise Patio Deck. Weigh down with blocking. This shall be add alternate #4.
- C. Remove existing roofing system, insulation, and flashings in accordance with section 02 41 19.13. Selective Building Demolition, 02080 Hazardous Materials Abatement (May 23, 2011).
- D. Check decking for deflection. Modify decking in order to eliminate deflected areas that may cause ponding as specified in section 07 54 00 Thermoplastic Membrane Roofing.
- E. Check decking for damage. Report damage to owner. Upon owner approval, repair concrete decking as specified in section 03 01 30 Maintenance of Precast Concrete. Provide unit cost for concrete deck repair.
- F. Remove existing fence and all associated brackets, supports and hardware at elevated exterior exercise area in accordance with section 02 41 19.13. Selective Building Demolition, 02080 Hazardous Materials Abatement (May 23, 2011)..
- G. Provide concrete repair at openings left as a result of removal of fencing hardware as specified in section 03 01 30 Maintenance of Precast Concrete.
- H. At designated roof areas with sufficient slope, adhere specified coverboard to the deck as specified in section 07 54 00 Thermoplastic Membrane Roofing.
- I. At designated roof areas with insufficient slope, adhere ¼" per 12" tapered insulation and coverboard to the deck as specified in section 07 54 00 Thermoplastic Membrane Roofing.
- J. Install crickets on the high sides of all curbs as specified in section 07 54 00 Thermoplastic Membrane Roofing.
- K. Adhere specified PVC membrane as specified in section 07 54 00 Thermoplastic Membrane Roofing.
- L. Install walk pads from roof access points to all serviceable equipment and gutters as specified in section 07 54 00 Thermoplastic Membrane. Contractor shall include 250 linear feet of walk pad installation in the base bid.
- M. Where mechanical equipment is being removed, provide curbs and sheet metal caps as specified in section 07 15 00 Sheet Metal Waterproofing.
- N. Any and all rooftop equipment that does not have curb heights of 8" above the final roof surface shall be extended. Insulation height will be increasing. If the proposed roofing system manufacturer will accept curb heights less than 8", contractor shall submit

request in writing (from manufacturer) to owner and engineer to withdraw this requirement.

- O. Add overflow scuppers next to all primary drains as specified in section 22 14 26.13 Roof Drainage.
- P. Perimeter and projection flashings:
 - 1. Provide all flashing and penetration details in accordance with the detail drawings and manufacturer guidelines as specified in section 07 54 00 Thermoplastic Membrane Roofing.
 - 2. If a manufacturer standard and required detail differs from that shown on the project detail drawings included in these specifications, contractor shall submit manufacturer approved drawing to the Owner and Engineer for approval. If the manufacturer requirements for a flashing detail is less stringent than those shown in the project drawings, the more stringent flashing detail shall govern with the approval of the manufacturer providing the warranty for this project.
- Q. Provide owner with a five (5) year contractor guarantee as specified in section 07 54 00 Thermoplastic Membrane Roofing.
- R. Provide owner with a twenty (20) year no-dollar-limit manufacturer warranty covering labor, materials, and metal flashings as specified in section 07 54 00 Thermoplastic Membrane Roofing.
- S. Provide concrete repair at entry steps as specified in section 03 01 30 Maintenance of precast concrete.
- T. Provide sealant at designated windows as specified in section 08 01 81 Maintenance of glass glazing.
- U. Provide all work as specified in the following sections. Review scope of work under each of these sections:
 - 1. 024119.13 Selective Building Demolition
 - 2. 02080 Hazardous Materials Abatement (May 23, 2011)
 - 3. 03 01 30 Maintenance of precast concrete
 - 4. 061000 Rough Carpentry
 - 5. 071500 Sheet Metal Waterproofing
 - 6. 075400 Thermoplastic membrane Roofing
 - 7. 08 01 81 Maintenance of glass glazing
 - 8. 099113 Exterior Painting
 - 9. 221426.13 Roof Drainage
- V. Provide any other warranty or guarantee as required by the specification sections listed above.

END OF SECTION

**SECTION 024119.13
SELECTIVE BUILDING DEMOLITION
(Roof Demolition)**

PART I – GENERAL

1.01 SCOPE OF WORK:

- A. Remove and dispose of existing built-up roofing system, insulation and all associated base flashings and metal projection and perimeter flashings.
- B. Remove existing fence and all associated brackets, supports and hardware at elevated exterior exercise area as specified.
- C. Remove damaged concrete that is to be patched or repaired.
- D. Comply with owner recommendations for setup of debris removal boxes, chutes and dumpsters.
- E. Protect adjacent surfaces from damage during removal.
- F. Where specified, remove and dispose of existing rooftop equipment not in use. Check with owner to verify what equipment is to be removed.
- G. All hazardous waste shall be removed in accordance with section 02080 Hazardous Materials Abatement (May 23, 2011). Hazardous waste removal is not part of this section.

1.02 REGULATIONS

- A. Comply with all requirements as set forth in the 2010 California Building Code.
- B. Comply with section 5.408 of the California Building Code as it pertains to construction waste reduction, disposal and recycling.

1.03 GENERAL:

- A. During all phases of work, contractor shall comply with all applicable sections of the State of California Code of Regulation (CCR), Industrial Safety Orders (Title 8), as well as Federal and State of California Occupational Safety and Health Administration (OSHA) regulations, including the Hazardous Waste Operations and Emergency Response Regulation (Title 8, Section 5192 and 29 CFR 1910.120).
- B. All project staging shall have the approval of the Owner's Representative.

PART 2 – PRODUCTS

NONE

PART 3 – EXECUTION

3.01 EXAMINATION:

- A. Survey existing conditions to determine extent of demolition required.
- B. Arrange operations to reveal concealed structural conditions for examination and verification before removal or demolition.
- C. Verify actual conditions to determine whether removal or demolition will result in structural deficiency, overloading, failure or unplanned collapse.
- D. Items to remain shall be protected against damage during the demolition operations.
- E. Demolish and remove existing construction only to the extent required by the new construction and as indicated.
- F. Perform selective demolition using methods which are least likely to damage work to remain and which provide proper surfaces for patching.
- G. Promptly remove all debris to avoid excessive loads on supporting walls, floors, and framing.
- H. Remove debris from Owner property on a daily basis to a legal disposal site.

3.02 UNIDENTIFIED MATERIALS:

- A. If the contractor in the course of normal inspections identifies any unidentified items, including materials that may contain asbestos or any other potentially hazardous substances that will (or may) require additional demolition and removal other than as required by the this contract, the contractor shall immediately report to the project engineer.
- B. The Owner will arrange for necessary testing and analysis of unidentified materials and will provide instructions to the contractor regarding the removal, handling, storage, transport and disposal of the materials.

3.03 DUST CONTROL:

- A. Accomplish demolition and removal with the minimum accumulation of dust and debris.
- B. Work shall proceed in such a manner as to minimize the spread of dust and flying debris.

3.04 PROTECTION:

- A. Provide for the protection of persons passing around and through the area of demolition.
- B. Provide protective measures to ensure free and safe passage of persons to and from occupied areas.
- C. Execute demolition work in a manner that will ensure the safety of adjacent property and persons occupying such property against any damages or injuries which might occur from falling debris, unprotected excavations, holes, voids, etc. Airborne residue or other causes; and so as not to interfere with the use of adjacent public and private property of the free and safe passage to and from the same.
- D. Take all necessary precautions to prevent damage to any existing construction scheduled to remain, whether located on the site of on adjacent property.
- E. Protect existing walls, floors and other new or existing work including finishes from damage during the demolition process.
- F. Any item damaged or disturbed which was required to remain in place shall be replaced, repaired, or reset to the satisfaction of the Owner's Representative at no cost to the Owner.
- G. Contractor shall monitor weather predictions and cease work when rain or heavy fog is forecast.

3.05 DISPOSAL:

- A. Disposal facilities shall be in compliance with all federal and state regulations. Applicable regional and local laws, rules and regulations shall be those of the government or quasi-governmental agencies, or other entities having jurisdiction at the disposal facility.
- B. Disposal of any material as non-hazardous waste shall not relieve the contractor from complying with the requirements of the contract documents and the requirements of all federal, state, regional and local laws, rules, and regulations regarding the removal and transport of materials as specified.

3.06 CLEANUP:

- A. Inspect existing surfaces or structures adjacent to demolition and removal operations, including surfaces or structures on adjacent public or private property for damage and stains. Repair or clean existing surfaces or structures not indicated to be removed including surfaces or structures on adjacent public or private property prior to the completion of the work at no additional cost.
- B. Keep the project site clear of all debris resulting from demolition and removals operations and remove all debris from the site on a daily basis during the progress of the work. The cost of removal, hauling, and dumping shall be borne by the contractor.

3.07 UTILITY SERVICES:

- A. Maintain existing utilities, keep in service and protect against damage during demolition operations.
- B. Do not interrupt existing utilities servicing occupied or used facilities, except when authorized in writing by Owner's Representative. Provide temporary services during interruptions to existing utilities as acceptable to owner.

END OF SECTION

SECTION 030130

MAINTENANCE OF PRECAST CONCRETE

PART 1 GENERAL

1.1 SCOPE OF WORK

- A. Provide concrete repair at designated locations. Work includes the following:
 - 1. Removal of loose and spalled concrete.
 - 2. Repair and treatment of exposed reinforcing steel.
 - 3. Patching of damaged or removed concrete.
 - 4. Provide concrete repair at openings left as a result of removal of fencing hardware as specified.
 - 5. Provide concrete repair at areas of concrete decking that are damaged. Prior to repair, obtain owner approval. This work shall be done on a unit cost basis.

1.2 REFERENCES

- A. AASHTO M148 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete (same as ASTM C 309).
- B. ASTM C 309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- C. ASTM C 1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
- D. ASTM F 1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- E. ASTM F 2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
- F. COE CRD-C 621 - - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink) (same as ASTM C 1107).

1.3 SUBMITTALS

- A. Submittal requirements: Contractor shall highlight anything in the submittal package that conflicts with or changes specifications or drawings. Include a reason for the change. Any submittals that alter existing specifications or drawings shall be approved by the engineer and owner prior to implementation.
- B. Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 5 years manufacturing concrete resurfacing and rehabilitation products.
- B. Installer Qualifications: Minimum two years installing similar products.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Engineer.
 - 2. Do not proceed with remaining work until workmanship, color and sheen are approved by Engineer.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.

- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. MAPEI Americas U.S.A., 1144 E. Newport Center Rd., Deerfield Beach, FL 33442; 954-246-8888; Email: MGranatowski@mapei.com; Web: www.mapei.com/US-EN
- B. Or approved equal.

2.2 PRODUCTS

- A. Fast-Setting Exterior/Interior Topping: Pre-blended, cementitious; for horizontal surfaces, allowing traffic or subsequent finishing within 3 to 4 hours. Any of the following:
 1. MAPEI Mapecem 101; one-component, non-shrinking, self-curing; for horizontal surfaces, feather edge to 1 inch (25 mm) per coat.
 2. MAPEI Mapecem 102; one-component, non-shrinking, self-curing; for horizontal surfaces, 1/4 inch (6 mm) to 2 inches (50 mm) per coat, or aggregate extended to 8 inches (200 mm) thickness.
 3. MAPEI Mapecem 202; two-component, non-shrinking, self-curing; with corrosion inhibitor 1/4 inch (6 mm) to 2 inches (50 mm) per coat, or aggregate extended to 8 inches (200 mm) thickness. Refer to Technical Data Sheets for procedures.
 4. Concrete Renew or Concrete Renew Fine. Exterior Cementitious concrete resurfacers. Apply from 1/8 to 1/4 inch (3mm-6mm), light gray in color, suitable for a number of finishes, and suitable for foot or light wheeled traffic.
- B. Exterior/Interior Repair Mortar: Pre-blended polymer-modified, cementitious patching mortar; for a variety of surfaces including

vertical, horizontal, and overhead surfaces. Any of the following:

1. MAPEI Planitop X; one component fast setting, shrinkage compensated, fiber reinforced with corrosion inhibitor, horizontal, vertical and overhead repair mortar; feather edge to 4 inches (100 mm) per coat. Light grey in color.
 2. Acceptable Product. MAPEI Planitop XS, one component, extended working time version of Planitop X. Shrinkage compensated, fiber reinforced, with corrosion inhibitor VOH , feather edge to 4 inches (100mm) per coat, light gray in color.
 3. MAPEI Planitop 12; one-component, shrinkage-compensated, thixotropic mortar with fiber reinforcement and corrosion inhibitor; minimum 1/4 inch (6 mm) thickness.
 4. MAPEI Planitop 21; two-component; maximum 1/4 inch (6 mm) per coat.
 5. MAPEI Planitop 23; two-component, fast-setting, thixotropic, with fiber reinforcement and corrosion inhibitor; 1/8 inch (3 mm) to 1-5/8 inches (40 mm) per coat.
 6. MAPEI Tilt Finish. Professional Finishing compound for Concrete Surfaces. Very fine smoothing compound suitable for filling bugholes, correcting minor defects and resurfacing of vertical and overhead concrete surfaces, feather to 1/4 inch (6 mm). Light gray in color.
 7. Mapecem Quickpatch, Interior / Exterior fast setting high flow patch. Suitable from feather to 3 inch (76 mm) application in confined areas. Light gray in color and suitable as a wear surface.
 8. Primer: As recommended by manufacturer.
- C. Very Fluid Repair Mortar: Suitable for structural Form and pour repairs. Any of the following:
1. MAPEI Planitop 15. Pre-blended one-component shrinkage-compensated cementitious fiber-reinforced mortar suitable for pouring into forms and around reinforcing bars without segregation.
- D. Structural Grout: Pre-blended high-strength shrinkage-compensated cementitious grout; ASTM C 1107 Grade C and COE CRD-C 621 Grade C. Any of the following:
1. MAPEI Planigrout 755. General Construction Grout, capable of being placed in consistencies from dry pack to very fluid.
 2. MAPEI Planigrout 712 High performance Construction Grout, with silica fume and corrosion inhibitor, capable of being placed in consistencies from dry pack to very fluid.
 3. MAPEI Planigrout 740; Precision and Tremie grout capable of being placed in consistencies from plastic to very fluid.
 4. MAPEI Planigrout 830 SP High-Performance, Three-Part Epoxy Machine Base Grout.

- E. Corrosion Inhibiting Coating for Reinforcing Steel:
 - 1. MAPEI Mapefer 1K. New Technology 1 Component polymer modified cementitious coating for reinforcing bar. Meets and exceeds ASTM B117.

- F. Epoxy Repair: Any of the following:
 - 1. MAPEI Planibond EBA, Epoxy Bonding Agent and Primer.
 - 2. MAPEI Planibond AE High-strength, nonsag epoxy anchoring gel.
 - 3. MAPEI Planibond CR50, Low-Viscosity Injection Resin for Crack Repair.

- G. Epoxy Adhesive: Two-component, non-shrink, solvent-free, moisture-insensitive epoxy adhesive or bonding agent:
 - 1. MAPEI Planibond EBA, 100 percent solids epoxy.

- H. Slurry Bond Coat: Portland cement, sand, and latex additive.
 - 1. MAPEI Planicrete AC or PM mix; proportions as recommended by manufacturer.

- I. Admixtures / Additives: Any of the following:
 - 1. MAPEI Mapecure SRA, Shrinkage-and crack-reduction curing additive.
 - 2. MAPEI Planicrete AC, Acrylic Latex Admixture for Mortar and Concrete.
 - 3. Acceptable Product; MAPEI Planicrete UA, Universal Latex Additive.

- J. Fast-Setting Exterior/Interior Mortar: Any of the following:
 - 1. MAPEI Topcem Premix, ready-to-use, accelerated-cure screed; at thicknesses from 1/4 inch to 4 inches as required.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Engineer of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Remove all loose and damaged concrete.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Repair and treat exposed reinforcing steel using specified materials.
- B. Patch damaged concrete using specified materials.
- C. Install products in accordance with manufacturer's instructions.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products after Substantial Completion.

END OF SECTION

SECTION 06 10 00

ROUGH CARPENTRY

PART 1 – GENERAL

1.01 SCOPE OF WORK:

- A. Supply and install all lumber as specified herein and as required by the manufacturer to qualify for the specified warranty.
- B. Work includes:
 - 1. Wood nailer installation. If nailers are required by the manufacturer, contractor shall install nailers if not present. If nailers are present, contractor may re-use if nailers are approved by the manufacturer.
 - 2. Wood curb installation under HVAC unit.

1.02 DELIVERY AND STORAGE:

Deliver and store materials in dry, protected areas as directed by owner. Keep free of stain or other damage. Replace any damaged material at no cost to owner. When ready to install, plywood shall be placed on the roof in small stacks over column locations until applied.

1.03 TECHNICAL SUBMITTALS

- A. Submittal requirements: Contractor shall highlight anything in the submittal package that conflicts with or changes specifications or drawings. Include a reason for the change. Any submittals that alter existing specifications or drawings shall be approved by the engineer and owner prior to implementation.
- B. The following submittals are to be made in conjunction with any other submittal requirements set forth in the bid documents.
- C. The contractor shall submit the following upon request of the owner or engineer:
 - 1. Manufacturer specification data sheets. Submit for the following products:
 - a. Lumber.
 - b. Fasteners.
 - c. Any other product used under this section.
 - 2. Manufacturer literature describing the installation procedure of the specified system.
 - 3. Letter from manufacturer approving these specifications and drawings.

Any changes in plans or specs to meet manufacturer requirements shall be submitted and highlighted. If manufacturer requirements conflict with these specifications or drawings, more stringent requirements will apply.

4. Shop drawings of any details that may be different than the NRCA standard details included in these specifications. This includes manufacturer detail drawings that may be different than NRCA drawings. All flashing detail designs shall be approved by the Owner.

PART 2 - MATERIALS

2.01 LUMBER:

- A. Lumber shall be dry and well seasoned. The moisture content shall not exceed 19% in boards 8" or less in depth, 15% in lumber more than 8" in depth and plywood.
- B. Lumber herein referred to shall be graded and grade marked and shall conform to the following specifications, as applicable. All material shall be new.
 1. Douglas Fir Select Structural I. Per standard grading and dressing rules #16 of the West Coast Lumber Inspection Bureau (WCLIB).
 2. Plywood: Replacement sheathing, Structural I, CD (exterior glue) shall conform to the requirements designed in American Plywood Association, US Production Standard for soft plywood. Each Standard PS 1-74 size panel shall be stamped with appropriate grade marking, visibly shown.
 3. Wood Nailers: Pressure treated Douglas Fir.

2.02 FASTENERS AND CONNECTORS

- A. Brackets for construction of curbs shall be by Simpson Company of San Leandro CA. Fasteners shall be Simpson.
- B. All nails for fastening plywood to roof supports shall be common nails: flat head, diamond point, hot-dipped galvanized. All nails shall be hot-dip galvanized.
- C. Wood Nailers: Screws shall be coated #12. Length sufficient to penetrate steel decking.

PART 3 - EXECUTION

3.01 WOOD MATERIALS:

All materials shall be new when incorporated into the Work.

3.02 WORKMANSHIP:

- A. The entire work of this division shall be performed in accordance with the best standards of practice relating to the trade and under the constant supervision of a competent foreman who shall carefully plan and lay out the work as required to carry out the intent of the drawings and to properly accommodate the work of other trades.
- B. All lumber framing shall be accurately cut and fitted into the respective location, true to lines, grades and level as indicated or required and permanently secured in proper position with spikes, or other fastenings or fittings as detailed to render the work substantial and rigid in all parts and connections.
- C. All framing shall comply with the requirements of the local building codes.

3.03 INSTALLATION OF WOOD NAILERS:

- A. Install nailers to meet manufacturers wind uplift requirements per linear foot in any direction.
- B. If required by the manufacturer, install nailers at the perimeter, walls, and around curbs to furnish at the same height as the insulation.

3.04 INSTALLATION OF WOOD CURB AT HVAC UNIT:

- A. Fabricate and install wood box curb using 2X framing and ½” plywood.
- B. Dimensions of wood curb shall be appropriate to support equipment and encapsulate supply and return.
- C. Wood curb height shall be a minimum of 12” from final roof surface.
- D. Interior framing shall enable interior air plenum for supply and return.
- E. Attach wood curb to deck structural members using Simpson L brackets and Simpson shear screws. Install a minimum of four brackets.

END OF SECTION

SECTION 07 15 00

SHEET METAL WATERPROOFING

PART 1 – GENERAL

1.01 SCOPE OF WORK:

- A. The Work required under this section consists of all shop and field fabricated sheet metal flashing and trim and related items necessary and required to complete the Work as indicated in this specification
- B. Contractor shall provide all items, articles, materials, operations or methods specified herein, including all labor, materials, equipment, and incidentals necessary and required for completion of the work.
- C. Protect dissimilar metals by installing barrier sheets between them. Install barriers between metals where there is more than 0.15 V difference in the Anodic Index.
- D. Sheet metal work shall include the following:
 - 1. Sheet metal caps over all curbs where equipment has been removed.
 - 2. Coated metal edges.
 - 3. Skirt counter-flashings to be installed at equipment curbs and any location requiring an extension of the existing counter-flashing.
 - 4. Coated metal flashings installed where membrane and metal come into contact.
 - 5. Coated metal scupper inserts.
 - 6. Treat gutter interiors as specified.

1.02 REFERENCES:

- A. American Society for Testing and Materials (ASTM) Standards.
- B. Sheet Metal and Air Conditioning Contractors National Association (SMACNA) Architectural Sheet Metal Manual.

1.03 QUALITY ASSURANCE:

- A. Installer: All work of this Section must be performed by a licensed sheet metal contractor with five years of successful experience with installation of sheet metal flashing and trim similar in type and scope to project requirements.
- B. Quality Standard: Fabricate and install sheet metal work in accordance with Sheet Metal and Air Conditioning Contractors' National Association, Inc.

(SMACNA) "Architectural Sheet Metal Manual", unless specifically indicated otherwise.

1.04 TECHNICAL SUBMITTALS

- A. Submittal requirements: Contractor shall highlight anything in the submittal package that conflicts with or changes specifications or drawings. Include a reason for the change. Any submittals that alter existing specifications or drawings shall be approved by the engineer and owner prior to implementation.
- B. The following submittals are to be made in conjunction with any other submittal requirements set forth in the bid documents.
- C. The contractor shall submit the following upon request of the owner or engineer:
 - 1. Manufacturer specification data sheets. Submit for the following products:
 - a. Specified sheet metal.
 - 2. Manufacturer literature describing the installation procedure of the specified system.
 - 3. Shop drawings of any details that may be different than the NRCA or SMACNA standard details included in these specifications. This includes manufacturer detail drawings that may be different than NRCA or SMACNA drawings. All flashing detail designs shall be approved by the Owner.
 - 4. Material safety data sheets.

PART 2 - PRODUCTS

2.01 SHEET STEEL:

- A. Galvanized Steel Sheet: ASTM A 526, commercial quality, G-90 hot dip galvanized. Minimum thickness: 24 gage (0.0239 inch), unless otherwise shown on the drawings or specified herein. Galvanized steel sheets shall be acid etched to receive paint finish.
- B. Sheet metal that must be tied into single ply systems such as metal edging and drain flanges may be provided by the manufacturer of the single ply system being used.
- C. Kynar coated metal: 70% Kynar Coated Galvalume. Color approved by owner. 24 gage (0.0239 inch), unless otherwise shown on the drawings or specified herein.
- D. Schedule 40 cast iron for downspouts, paint to match building. All replacement or new downspouts shall be cast iron and this shall extend a minimum of 6' above ground. 24 gauge downspouts leading from gutters may transition into cast iron at this point.
- E. Coated metal: provided by roof membrane manufacturer.

2.02 FASTENERS:

- A. Nails: Shall be hot-dipped, galvanized. All nails shall be approved type and selected for their intended use.
- B. Screws: Minimum No. 8 size screw with watertight neoprene washers under screw head where exposed shall be used for the fastening of sheet metal into wood nailers. Self-tapping, #3 sheet metal screws of ½" length shall be used for the fastening of sheet metal to sheet metal. All screws shall be of corrosion resistant metal of same material as the material being fastened. All exposed fasteners shall have 5/8" steel/neoprene washers under head.
- C. Screws at sight screens shall be stainless steel and match existing diameter and length. Screws shall have rubber washers.

2.03 ACCESSORY MATERIALS:

- A. Sealant: Elastomeric sealant shall be a low modulus, high performance, one part polyurethane type conforming to Federal Specifications No. TT-S-00230C, Type II, Class A, such as Sonolastic NP-1 by Sonneborn Building Products, Sikaflex-15LM or approved equal.
- B. Solder: ASTM B 32-89, 50/50 tin-lead, rosin flux shall conform to Federal Specification O-F-506C, Type I, Form A or B.
- C. Gutter interior treatment: Approved primer and epoxy based or asphalt based coating specifically designed for gutter interior treatment.

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Examine substrates and conditions under which products of this section are to be installed and verify that work may properly commence. Do not proceed with the Work until unsatisfactory conditions have been fully resolved.
- B. Verify that nailers, blocking, and other attachment provisions for sheet metal work are properly located and securely fastened to resist effects of wind and thermal stresses.

3.02 PREPARATION:

- A. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
- B. Verify that surfaces to receive sheet metal are smooth, clean of all foreign matter, and have no water present in any form.

3.03 INSTALLATION:

- A. Sheet metal work shall be executed in a first-class, workmanlike manner in accordance with standard shop practices. Comply with sheet metal manufacturer's installation methods and recommendations in the SMACNA "Architectural Sheet Metal Manual".
- B. The sheet metal work shall be accurately formed to dimensions and shapes detailed or required. Broken shapes shall finish with true, straight, sharp lines, and angles; and where intersecting, shall be coped to a precise fit and be securely soldered and scraped smooth. Lock seam work shall be made flat and true to line, sweated full of solder.
- C. All sheet work shall be so formed and installed as to provide suitable allowance for expansion and contraction without causing undue stresses in any part of the completed work and shall finish water and weather tight throughout. Provide movement joints at maximum spacing of ten feet. No joints within 2 feet of corner or intersection.
- D. Mechanically fasten and solder all joints, splices and transitions that are not designed for expansion. Fasten metal by solid riveting or forming double lock seams. Seal by continuous soldering.
- E. Galvanic Action Protection: Isolate different metal types from each other to prevent galvanic action.
- F. Use elastomeric sealant where necessary to make a watertight installation.
- G. Form a ½ - inch hem on the underside of all exposed edges.

- H. Fabricate cleats and attachment devices from same material as sheet metal component being anchored or from compatible, noncorrosive metal recommended by sheet metal manufacturer. The gage thickness shall be as recommended by SMACNA for application but in no case less than gage of metal being secured.
- I. Heat weldable coated metal flashings provided by single ply manufacturer such as edge edges and flanges shall be installed in accordance with manufacturer guidelines. Coated metal shall be used for all metal that needs to be sealed into the single ply membrane including but not limited to metal edges and scuppers.
- J. Soldered Joints:
 - 1. Clean surfaces to be soldered, removing oils and foreign matter.
 - 2. Prein edges of sheets to be soldered to a width of 1-1/2 inches.
 - 3. Soldering shall be done with well heated soldering irons. Do not use torches for soldering.
 - 4. Heat surfaces to receive solder and flow solder into joint. Fill joint completely.
 - 5. Completely remove all flux spatter from exposed surfaces with a solution of washing soda in water.

3.04 PAINTING:

All surfaces of exterior sheet metal work (except exposed ducting that is to be waterproofed) that will be exposed after installation shall be thoroughly cleaned with an acid wash and shall be primed and painted to match existing building finish on adjacent sheet metal surfaces. Refer to Section 09 91 13 – Exterior Painting.

3.05 INSPECTION:

Before completing the work, owner shall carefully examine, and if necessary, test all sheet metal work and equipment specified herein, and Contractor shall make all repairs to the work if damaged, leaving it in a condition satisfactory of the owner.

3.06 CLEAN UP:

All debris and/or rubbish resulting from the operations of this Work shall be cleaned up and removed from the work site as the work progresses. Contractor shall be responsible for removal of refuse by all subcontractors working under its direction.

END OF SECTION

SECTION 07 54 00 THERMOPLASTIC MEMBRANE ROOFING

PART 1 – GENERAL

1.01 SCOPE OF WORK UNDER THIS SECTION:

- A. Provide deck leveling as specified.
- B. Check decking for deflection. Modify decking in order to eliminate deflected areas that may cause ponding as specified.
- C. At designated roof areas with sufficient slope, adhere specified coverboard to the deck as specified.
- D. At designated roof areas with insufficient slope, adhere ¼” per 12” tapered insulation and coverboard to the deck.
- E. Install crickets on the high sides of all curbs.
- F. Adhere specified PVC membrane.
- G. Install 45 mil temporary roof membrane over Exercise Patio Deck as specified.
- H. Install walk pads from roof access points to all serviceable equipment and gutters as shown on the plan drawings. Contractor shall include 250 linear feet of walk pad installation in the base bid.
- I. Any and all rooftop equipment that does not have curb heights of 8” above the final roof surface shall be extended. Insulation height will be increasing. If the proposed roofing system manufacturer will accept curb heights less than 8”, contractor shall submit request in writing (from manufacturer) to owner and engineer to withdraw this requirement.
- J. Perimeter and projection flashings:
 - 1. Provide all flashing and penetration details in accordance with the detail drawings and manufacturer guidelines.
 - 2. If a manufacturer standard and required detail differs from that shown on the project detail drawings included in these specifications, contractor shall submit manufacturer approved drawing to the Owner and Engineer for approval. If the manufacturer requirements for a flashing detail is less stringent than those shown in the project drawings, the more stringent flashing detail shall govern with the approval of the manufacturer providing the warranty for this project.
- K. Provide owner with a five (5) year contractor guarantee.
- L. Provide owner with a twenty (20) year no-dollar-limit manufacturer warranty covering labor, materials, and metal flashings.

1.02 QUALITY ASSURANCE

- A. Contractor shall:
 - 1. Be experienced in single ply roofing.
 - 2. Be certified or approved for the installation of proposed manufacturer's warranted roofing systems.

1.03 SYSTEM REQUIREMENTS

- A. Roofing system shall comply with the 2010 California Building Code.
- B. All materials shall comply with section 5.504 of the 2010 California Building Code. This requirement shall apply regardless of the products listed in these specifications. It is the responsibility of the contractor and manufacturer to comply with this requirement.
- C. FIRE RATING - UL Class A: Proposed roofing system must have approvals from Underwriters Laboratories that indicate that the existing fire ratings attain a UL Class A assembly.
- D. WIND UPLIFT: The system shall attain a Factory Mutual I-60 or UL Class 60 wind uplift rating. FM listing is not required, but an FM design standard is adequate for this project.
- E. Perimeter flashings shall meet ANSI/SPRI ES-1 – American National Standard Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.
- F. The new roof system shall comply with all mandatory requirements under The California Green Building Standards as listed under Title 24 Part 11.

1.04 TECHNICAL SUBMITTALS

- A. Submittal requirements: Contractor shall highlight anything in the submittal package that conflicts with or changes specifications or drawings. Include a reason for the change. Any submittals that alter existing specifications or drawings shall be approved by the engineer and owner prior to implementation.
- B. The following submittals are to be made in conjunction with any other submittal requirements set forth in the bid documents.
- C. The contractor shall submit the following upon request of the owner or engineer:
 - 1. Manufacturer specification data sheets. Submit for the following products:
 - a. Roof assembly.
 - b. Single ply membrane.
 - c. Adhesives.

- d. Walk pads (must be approved by owner).
- e. Any other product used on this project.
2. Manufacturer literature describing the installation procedure of the specified system.
3. Letter from manufacturer approving these specifications and drawings. Any changes in plans or specs to meet manufacturer requirements shall be submitted and highlighted. If manufacturer requirements conflict with these specifications or drawings, more stringent requirements will apply.
4. Shop drawings of any details that may be different than the NRCA standard details included in these specifications. This includes manufacturer detail drawings that may be different than NRCA drawings. All flashing detail designs shall be approved by the Owner.
5. Material safety data sheets.
6. Tapered insulation layout for designated roof areas to receive tapered insulation.
7. Test reports:
 - a. Written verification from roofing material supplier that roofing system meets or exceeds regulatory agency/s requirements. A photocopy of the UL Class "A" listing for the specified system with the proposed manufacturer as listed in the 2010 or 2011 UL Building Materials Directory. The Components of the system listed as UL Class "A" must match the system specified for each respective building.
 - b. Letter from the manufacturer OR photo copy of the listing from UL or FM depicting the wind uplift requirements of the system.

1.05 WARRANTY & GUARANTEE

- A. Warranty: The Roofing Manufacturer shall provide a full system no dollar limit (NDL) warranty covering the roof membrane, flashings, insulation, fasteners and stress plates, termination bar, metal, etc., against labor and/or material deficiencies for a minimum period of twenty (20) years from the date of acceptance by the Owner. This written warranty will be provided by the membrane manufacturer and will cover material and workmanship for a minimum of twenty (20) years without any cost to the Owner. The warranty shall specifically state that temporary emergency repairs made to the roofing system by the Owner shall not void or in any way affect the provisions of the warranty. This warranty shall include all components provided by the roof membrane manufacturer including but not limited to coated metal or metal components.
- B. Guarantee: Upon project completion and owner acceptance, effective upon complete payment, Contractor shall issue owner a guarantee against defective

workmanship and materials for a period of five (5) years.

PART 2 – MATERIALS

2.01 GENERAL:

- A. All materials used on this project shall be new products.
- B. Any materials that are seconds, out of date, or used, shall be removed from the job site.
- C. Single ply membrane shall be white with a Cool Roof and Energy Star rating.
- D. FIRE RATING: UL Class A: Proposed roofing system must have approvals from Underwriters Laboratories that indicate that the existing fire ratings attain a UL Class A assembly.
- E. WIND UPLIFT: The system shall attain a Factory Mutual I-60 or UL Class 60 wind uplift rating. FM listing is not required, but an FM design standard is adequate for this project.

2.02 RELATED MATERIALS:

- A. TAPERED INSULATION: Isocyanurate as approved by membrane manufacturer.
- B. COVERBOARD:
 - 1. Over concrete deck where no thermal insulation is being used: USG Secureock, Densdeck Prime ½” or approved equal.
 - 2. Over tapered insulation: USG Secureock, Densdeck Prime ¼” or approved equal.
 - 3. Note: Wood fiber or perlite coverboard is not acceptable for this project even if it is approved by the manufacturer.
- C. COATED METAL FLASHINGS: All coated metal flashing shall be supplied by the manufacturer and covered under the warranty.
- D. ADHESIVES: Shall be approved by the membrane manufacturer. Adhesives shall be voc compliant.
- E. WALK PADS: Shall be furnished by the membrane manufacturer. Walk treads shall be of the highest quality provided by the manufacturer. Samples of the walk treads shall be provided to the owner for approval.
- F. FASTENERS AND STRESS PLATES: Shall be a non-corrosive type approved by the membrane manufacturer.
- G. CAULK: Shall be a high-grade silicone or urethane as recommended by a

membrane manufacturer.

- H. POND PATCH: Shall be approved by the manufacturer providing the membrane for this project.
- I. TEMPORARY ROOFING: Shall be 45 mil as provided by any of the approved manufacturers.

2.03 PRE-APPROVED ROOFING SYSTEMS/MANUFACTURERS:

A. PVC Thermoplastic Membrane – fleece-backed.

- 1. Sarnafil, 80 mils PVC
- 2. Fibertite 60 mils PVC
- 3. IB 80 mils PVC
- 4. Manville 80 mils PVC
- 5. Durolast 80 mils PVC
- 6. Carlisle 80 mils PVC
- 7. GAF 80 mils PVC

B. TPO Thermoplastic Membrane – fleece-backed.

- 1. Firestone 80 mils TPO
- 2. Manville 80 mils TPO
- 3. Carlisle 80 mils TPO
- 4. GAF 80 mils TPO

PART 3 – EXECUTION

3.01 GENERAL

- A. It is the responsibility of the contractor to ensure that all requirements for the specified 20 year NDL warranty are accomplished and included in the bid for this project. No change orders will be approved for non-specified details, techniques, materials or procedures in order to obtain this warranty. If major problems or challenges are noted with regards to these requirements, the contractor shall notify the owner prior to the bid opening.
- B. Difficult areas of roofing:
 - 1. It is not the intention of this specification to provide means or methods of roof installation. However, means and methods of roof installation must adhere to industry and manufacturer standards and shall have the approval of the

owner and engineer.

2. Unusual, unorthodox, or dangerous methods of roof removal or installation shall be reported to and approved by the owner prior to execution.
 3. If rooftop equipment or any other building component needs to be modified or moved in order to properly install the roofing system, it will be the responsibility of the contractor to perform the work under the base bid for this project without change order request. Contractor shall obtain permission from the owner prior to bid opening for any equipment or building component modification. Any damage that is incurred to the equipment or building component as a result of movement or modification shall be repaired or replaced by the contractor at no cost to the owner.
- C. Perimeter and projection flashings: Please refer to section 3.06 of these specifications for specific instructions regarding flashings.

3.02 SURFACE PREPARATION:

- A. Remove designated roof membrane and flashings down to the deck as specified in section 02 41 19.13.
- B. Concrete deck deflection:
1. Check decking for deflection using a string-line.
 2. Modify decking in order to eliminate deflected areas that may cause ponding. Decking can be leveled using a manufacturer approved filler such as Pond Patch or by using insulation board.
 3. If decking is significantly deflected, notify owner and engineer immediately because this could be an indication of roof deck damage.
 4. Allowance/contingency: For bid purposes, contractor shall assume that approximately 100 sf of the deck surface will require this self leveling material to be installed. On the bid form, provide a lump sum and unit cost for this work. If, after roof removal, more than 100 sf of the deck requires treatment, contractor shall notify owner and engineer for change order approval. If, after roof removal, less than 100 sf of the deck requires treatment, a credit will be due back to the owner. Positive and negative change orders shall be based on the unit costs provided by the contractor on the bid form.
- C. Ensure that the substrate is dry and free of dirt, debris, and other foreign matter prior to the installation of new materials.

3.03 INSTALLATION OF NAILERS:

- A. Install nailers as required by the manufacturer in accordance with section 06 10 00 Rough Carpentry.

3.04 INSTALLATION OF CRICKETS, INSULATION AND COVERBOARD:

- A. Crickets: Increase the width of all drainage crickets to meet the following specifications. Half diamond crickets (at walls and behind curbs) shall have a width that equals $1/6^{\text{th}}$ of the length. Full diamond crickets shall have a width of $1/3^{\text{rd}}$ of the length.
- B. Install drainage crickets at the high side of all curbs.
- C. Install drainage crickets along the perimeter between primary drains.
- D. Adhere the specified insulation and coverboard filling all voids greater than 1/4" and staggering all joints. If using fasteners, fasten only into upper flutes. (For applications on metal decks). Fastener length should not penetrate down below the lower flutes because conduits are mounted on the underside of the deck.
- E. Sump the insulation at drains 36 inches square from the edge of the drain to provide a positive slope. Drain sump shall have tapered insulation to provide a uniform slope down to the drain.
- F. Stagger all joints between layers.
- G. Cut insulation to fit snugly around all penetrations. Fill any voids greater than 1/4" like material.
- H. SPECIAL NOTE: At this time the contractor shall put a string line on the completed insulation in order to determine if there are any low areas that will cause ponding water. Variations greater than 1/2" shall be treated with filler material (pond patch) or additional insulation. Be careful to check drainage valleys at all crickets. These are areas most susceptible to ponding water.

3.05 INSTALLATION OF MEMBRANE:

- A. Install perimeter sheets using approved adhesive in accordance with manufacturer's requirements.
- B. Follow manufacturer recommendations for the installation of perimeter or membrane venting.
- C. Inspect the membrane for factory defects or shipping damage. Defective and/or damaged membrane will be rejected. (Note: No more than ten (10) patches per sheet.)
- D. Position field sheets so that side laps are single lapped with the slope and in accordance with the manufacturer's recommendation.
- E. Fully adhered membrane: Adhere the membrane using approved adhesive in accordance with the manufacturer's requirements to satisfy specified wind uplift requirements.

- F. Mechanically attached membrane: Mechanically attach membrane using approved fasteners in order to obtain specified wind ratings.
- G. Prevent wrinkling of membrane as much as possible. (If excessive wrinkling occurs, the Consultant may require the contractor to tack-weld the lap seams and then complete the entire weld.)
- H. Set the seam welder to the manufacturer's required setting. Make a test run and check the seam for proper welds. (All test runs shall be performed on a daily basis.
- I. Probe seams daily and repair loose edges, fish-mouths, and other defects the same day.
- J. Insure that all welding is performed by qualified personnel.
- K. The seam welder shall be powered by a dedicated power supply so as to ensure proper, adequate, and uniform voltage for sufficient seaming procedures. Also, the welder shall be equipped with voltage regulator cut-off features such as infrared sensors and other similar devices to insure consistent voltage, thereby reducing the possibility of cold or inadequate welds. The extension cord to welding units from power supply shall not exceed one (1) cord of 100 feet in length.
- L. INSTALLATION OF TEMPORARY MEMBRANE: Follow manufacturer requirements for installation of temporary membrane. Install slip sheet if required by the manufacturer. Provide approved flashings. Wall flashings may be termination bars. Round penetrations shall be field fabricated sleeves or manufactured boots. Membrane may be fully or spot adhered to the deck. Or, install concrete blocks periodically to hold membrane down. Wind ratings are not required for this temporary roofing system.

3.06 FLASHINGS

A. General flashing requirements:

1. Elastomeric Flashing:

- a. Adhere elastomeric sheeting completely to flashing surface, cant, and roofing with Flashing Adhesive. Embed flashing into adhesive immediately.
- b. Ensure complete bond and continuity without wrinkles or voids.
- c. Any equipment that will not have curb heights of 8" above the final roof surface shall be extended or raised. If the proposed roofing system manufacturer will accept curb heights less than 8", contractor shall submit request in writing (from manufacturer) to owner and engineer to withdraw this requirement. If a particular piece of equipment is impossible or not financially feasible to lift, raise or extend, contractor shall notify the

engineer prior to the bid date for direction.

- B. Install flashings in accordance with detail drawings and manufacturer guidelines. Details depicted in the drawings shall also conform with manufacturer guidelines. Where conflict exists, the more stringent detail shall govern. If conflict exists between depicted drawings and manufacturer guidelines, the following process shall apply:
1. Manufacturer shall inspect the detail and provide a recommended flashing design to the contractor and engineer.
 2. Contractor shall install the flashing only after it has been approved by the engineer and Owner.
 3. There shall be no additional charges for this proposed detail. It is the responsibility of the contractor to ensure that all manufacturer guidelines are accounted for in the base bid for this project.
- C. ANY DETAIL NOT COVERED IN THESE SPECIFICATIONS SHALL BE INSTALLED IN ACCORDANCE WITH GOOD ROOFING PRACTICE, N.R.C.A. RECOMMENDATIONS AND HAVE THE APPROVAL OF THE MANUFACTURER PROVIDING THE WARRANTY FOR THE ROOFING SYSTEM. If a detail is not covered in these specifications the following process will take place prior to bid opening:
1. Contact manufacturer responsible for flashing guarantee. Manufacturer shall inspect the detail and provide a recommended flashing design to the contractor. OR contractor may bid using the approved manufacturer detail.
 2. Contractor shall bid using the manufacturer-approved detail.
 3. Contractor shall submit detail drawing to University as part of the submittals.
 4. No change order will be given to the contractor for flashing details that were visible prior to construction. It is the responsibility of the contractor to cover in his bid all approved and specified details.
- D. Hidden Conditions warranting a change in scope of work or change order:
1. A hidden condition is defined as a condition that is revealed when the existing roof or flashing is removed AND that condition requires additional work above and beyond the work specified. For example, damaged substrate that must be replaced.
 2. If after removal of the roof or flashing, the substrate differs from that shown on the drawings, it shall not be considered a hidden condition unless it requires a change in scope of work.
 3. If nailers are required by the manufacturer, contractor shall install nailers if not present. If nailers are present, contractor may re-use if nailers are approved by the manufacturer.

3.07 SPECIAL INSTRUCTIONS:

- A. Obsolete Penetrations - Verify with owner all obsolete penetrations and remove from the roof.
- B. Delicate mechanical equipment – All mechanical equipment that is damaged or too delicate to move shall be identified at the pre-bid meeting or prior to bid.
- C. Sleepers - All sleepers should run perpendicular with the flow of water. If this is not possible, the sleepers should be boxed in and a diverter placed on the upside to prevent water from ponding. For extremely large sleepers that cannot be boxed in, contractor shall install tapered insulation between the sleepers in order to evacuate water from underneath the unit.
- D. Existing Horizontal Conduits that do not need to be mechanically attached to the roof surface and are less than 1.5” diameter – Install Copper B Line supports or approved equal. Adhere supports to the roof surface using approved sealant or adhesive in order to prevent movement of the lines. Refer to drawing entitled “Copper B Line Support.”
- E. Existing Horizontal Pipes that do not need to be mechanically attached to the roof surface for seismic support – Install pipe hanger system in accordance with manufacturer requirements. Carefully support existing lines in order to prevent breakage during installation.
- F. Condensate lines – Install Copper B Line supports or approved equal. Adhere supports to the roof surface using approved sealant or adhesive in order to prevent movement of the lines. All condensate lines shall be set in a manner to facilitate drainage. Contractor shall replace or repair damaged or missing condensate lines or lines damaged during roof installation. Contractor shall run condensate lines to nearest drain outlets. Refer to drawing entitled “Copper B Line Support.”
- G. Gas lines and electrical lines that need to be attached to the roof surface: Install blocking and attach to the roof deck. Install membrane flashing over blocking. Install another blocking on top of the covered blocking. Install sheet metal pan covering. Attach line to curb with U bracket. U bracket shall be attached to the metal pan and underlying blocking. Do not penetrate the membrane covered blocking. Refer to detail drawing entitled “protected wood sleeper” attached to these specifications.
- H. Equipment Legs and Supports - All supports for equipment and like items shall be set on wood blocks with membrane protection pads underneath or rubber pads.
- I. Prime and paint all exposed sheet metal flashings in accordance with Section 09 91 13.
- J. Existing Galvanized Jacks: All sheet metal roof jacks that house conduits will be

removed will incorporate manufacturer approved boot sleeves.

- K. Remove Josam type drains and install manufacturer approved drain inserts in accordance with section 22 14 29.13 Roof Drainage.
- L. **MECHANICAL EQUIPMENT NOT MEETING 8" HEIGHT REQUIREMENT FOR BASE FLASHING:** It is not the intention of this contract to perform major mechanical alteration in order to provide 8" heights on flashings. If a mechanical unit exists that does not meet a flashing height requirement, the contractor may install flashings in a manner that does not require major alteration. It is still the responsibility of the contractor to perform the flashing in a watertight manner, and the flashing will be included in the contractor guarantee. If the manufacturer requires a particular flashing height, it is acceptable for the manufacturer to exempt the mechanical unit from the warranty with approval of the owner and engineer. If a manufacturer is not willing to exempt a specific flashing, then it is the responsibility of the contractor to either comply with the manufacturer requirement, or use another manufacturer.

3.08 WALK TREADS:

- A. Clean roof surface of all dirt and debris where walk treads are to be placed.
- B. Install walk treads as approved and warranted by the membrane manufacturer.
- C. Walk treads shall be heat-welded to the membrane by a method approved by the manufacturer. If approved, the preferred method of walkpad attachment is by tack-welding corners.
- D. Locations of walk treads: Completely around all serviceable equipment. From serviceable equipment to roof access point. If there is no designated roof access point, install walkways between units only. Also follow designated layouts on roof plan drawings.
- E. Cut slots or spaces in walkpads that may impede drainage. Avoid welding walkpads over membrane seams if possible.
- F. Contractor shall be responsible to estimate linear footage of required walkpads in accordance with the above specification.

3.09 POWER SOURCE:

- A. The Contractor shall be responsible for supplying his own power source.
- B. The power shall be of sufficient voltage to insure that welds are made properly.

3.10 AESTHETICS:

- A. Contractor shall coordinate aesthetics with Owner.

- B. Contractor shall take precaution against overspray as directed by Owner.
- C. Contractor shall paint areas of asphalt spillage as directed by the Owner.
- D. Paint all sheet metal and lead surfaces in accordance with Section 099113.
- E. Any dirt, stains from bitumen materials, or other foreign matter shall be removed from the newly installed membrane to restore the surface to a clean, spot-free, and as-new condition, using methods as recommended by the manufacturer.

3.11 FINAL TESTING, INSPECTION & PUNCHLIST:

- A. Contractor shall notify the owner when roof is ready for final inspection.
- B. Owner shall coordinate final inspection and provide contractor with punch list.
- C. Contractor shall perform punchlist items within seven (7) working days of having received the final inspection punchlist.
- D. Owner shall coordinate an inspection verifying that all punchlist items have been complete. If punchlist items remain, contractor may be subject to compensating the owner for additional final punchlist verification inspections.
- E. Drain testing.
 - 1. Contractor shall flood test each drain to ensure that drain inserts are properly installed.
 - 2. Install balloon plug within the drain plumbing at a location lower than the drain insert.
 - 3. Fill the drain and drain sump with water. Allow to stand for 24 hours. Check for leakage by observing inside of the building. The owner may use a capacitance scanner to ensure that water has not penetrated under the membrane.
- F. Final inspection of drainage:
 - 1. Contractor shall flood test the roof in order to verify successful drainage. Flood testing shall occur with owner observation.
 - 2. After 48 hours, the roof will be inspected by the owner. Water remaining on the roof shall be categorized as ponding water in accordance with California Building Code 2007. At this time, the contractor shall be responsible for correcting ponding on the roof through the installation of pond patch filler and new membrane. The procedure shall be approved by the manufacturer. Even though the manufacturer approves standing (ponding) water, this does not alleviate the contractor from the responsibility of correcting ponding water on this project.

END OF SECTION

SECTION 088810 STRUCTURAL SILICONE GLAZING

PART 1 – GENERAL

1.01 SCOPE OF WORK:

- A. Definition: window glass glazing is described as the sealant that exists between window frame and lens.
- B. All surfaces where window glass contacts window frames shall be glazed as specified at designated windows.
- C. Thoroughly clean surfaces to be sealed of all contaminates (including existing sealant), by scraping or other manufacturer approved method to remove residues of existing sealant material, dirt, oil, and any other impurities, to provide a sound and properly prepared surface for the application of the new sealant.
- D. Prime substrate with the specified primer as approved for the specific application, by the sealant Manufacturer for preparation of the sealant application.
- E. Install the specified backer rod or tape (if necessary) into the previously prepared joints, if required.
- F. Install the specified sealant into at the rate, temperature, and humidity range as specified by the materials manufacturer.

1.02 GENERAL:

- A. All project staging shall have the approval of the Owner's Representative.

1.03 QUALITY CONTROL

- A. Contractor shall:
 - 1. Be experienced in sealant application 2 years minimum.
 - 2. Be a Manufacturer Certified or Approved contractor.
- B. Plans and Specifications:
 - 1. Contractor must notify Owner's Representative of any omissions, contradictions or conflicts seven (7) days before bid date. Owner and engineer will provide necessary corrections or additions to plans and specifications by addendum. If Contractor does not so notify Owner and engineer of any such condition, it will be assumed that the Contractor has included the necessary items in the bid to complete this specification.
 - 2. It is the intent that this be a completed project as far as the contract documents set forth. It is not the intent that different phases of work on this

project be delegated to various trades and subcontractors by the contract documents. Contractor must make own contracts with various subcontractors, setting forth the work these subcontractors will be held responsible for. Contractor alone will be held responsible by the Owner for the completed project.

3. If the Contractor feels a conflict exists between what is considered good waterproofing practice and these specifications contractor shall state in writing all objections prior to submitting quotations.

1.04 REFERENCES

- A. American Society of Civil Engineers (ASCE): ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
- B. American Society for Testing and Materials (ASTM):
 1. ASTM C719 - Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle).
 2. ASTM C794 - Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants.
 3. ASTM C920 - Elastomeric Joint Sealants.
 4. ASTM C1135 - Standard Test Method for Determining Tensile Adhesion Properties of Structural Sealants.
 5. ASTM C1184 – Specification for Structural Silicone Sealant.
 6. ASTM C1193 - Standard Guide for Use of Joint Sealants.
 7. ASTM C1330 - Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants.
 8. ASTM D412 - Standard Test Method for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension.
 9. ASTM D624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
 10. ASTM D2202 - Standard Test Method for Slump of Sealants.
 11. ASTM D2240 - Rubber Property Durometer Hardness.
 12. ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 13. ASTM C1401 – Guide for Structural Sealant Glazing
- C. California Building Code 2010.
- E. Structural bite: Minimum width or contact surface of structural silicone sealant on both glass panel and support frame. (ASTM C1401)
- F. Glueline thickness: Width of installed structural silicone sealant. (ASTM

C1401)

1.05 SUBMITTALS

- A. Submittal requirements: Contractor shall highlight anything in the submittal package that conflicts with or changes specifications or drawings. Include a reason for the change. Any submittals that alter existing specifications or drawings shall be approved by the engineer and owner prior to implementation.
- B. Letter from manufacturer approving the specific application of the specified product to locations and surfaces that are part of this project.
- C. The Contractor shall submit five sets of the following submittals to be approved by the Owner Representative within 7 days of commencement specified in the Notice to Proceed.
 - 1. Data:
 - a. Manufacturer's Technical Data on all materials to be used as part of this section.
 - b. Warranty Specimen from Manufacturer
 - c. Warranty Specimen from the Contractor
 - 2. Other:
 - a) Material Safety Data Sheets on all materials required
 - b) Proposed Staging Method & Safety Guidelines

1.06 DELIVERY, STORAGE AND HANDLING

- A. Delivery of materials:
 - 1. Deliver materials to job-site in new, dry, unopened, and well-marked containers showing product and manufacturer's name.
 - 2. Deliver materials in sufficient quantity to allow continuity of work.
 - 3. Coordinate delivery with Owner.
- B. Do not order project materials or start work before receiving Owner's written approval.
- C. Storage of materials:
 - 1. Store materials marked "KEEP FROM FREEZING" in areas where temperatures will remain above 40EF (5EC).
 - 2. No materials may be stored in open or in contact with ground.
 - 3. Should Contractor be required to quickly cover material temporarily, such as during an unanticipated rain shower, all materials shall be stored on a raised platform covered with secured canvas tarpaulin (not polyethylene), top to bottom.

4. Contractor shall assume full responsibility for the protection and safekeeping of products stored on premises.
- D. Material handling:
1. Handle materials to avoid bending, tearing, or other damage during transportation and installation.
 2. Material handling equipment shall be selected and operated so as not to damage existing construction or applied waterproofing. Do not operate or situate material handling equipment in locations that will hinder smooth flow of vehicular or pedestrian traffic.

1.07 SITE CONDITIONS

- A. Field measurements and material quantities: Contractor shall have SOLE responsibility for accuracy of all measurements, estimates of material quantities and sizes, and site conditions that will affect work.
- B. Existing conditions:
1. Building space directly under area covered by this specification will be utilized by on-going operations. Do not interrupt Owner operations unless prior written approval is received from Owner.
 2. Access to worksite shall be from exterior only.
- C. Safety requirements:
1. All application, material handling, and associated equipment shall conform to and be operated in conformance with OSHA safety requirements.
 2. Comply with federal, state, local and Owner fire and safety requirements.
 3. Advise Owner whenever work is expected to be hazardous to Owner, employees, and/or operators.
 4. Maintain fire extinguisher within easy access whenever power tools, and torches are being used.
- D. Environmental requirements:
1. Do not work in rain, snow, or in presence of water.
 2. Do not work in temperatures below 40⁰F.
 3. Do not install materials marked "KEEP FROM FREEZING" when daily temperatures are scheduled to fall below 40⁰F.
 4. Do not perform masonry work below 40⁰F.
 5. Remove any work exposed to freezing.
 6. Advise Owner's Representative when volatile materials are to be used near air ventilation intakes so that they can be shut down or blocked as Owner requires.

1.08 MANUFACTURER WARRANTY & CONTRACTOR GUARANTEE:

- A. **CONTRACTOR GUARANTEE:** The Contractor shall furnish to the Owner a five (5) year guarantee against labor and/or material defects for all labor and materials installed under this contract. This guarantee shall also cover any and all labor and materials necessary to repair or replace any materials that are damaged, deteriorated, or otherwise altered as a result of leaks attributed to material and/or improper or inadequate workmanship.
- B. **MANUFACTURER WARRANTY:** The Materials Manufacturer shall provide a standard warranty covering material deficiencies for at least a period of twenty (20) years from the date of acceptance by the Owner.
- C. A Final Inspection will be performed with the Owner, Engineer and Contractor present. Any corrections in the work that need to be made will be done prior to the project is accepted, the warranty dated, and called into force.

PART 2 - PRODUCTS

2.01 GENERAL:

- A. All materials used on this project shall be new products. Any materials that are seconds, out of date, or used, shall be removed from the job site. All materials used on the project shall be marked or stamped with the manufacturer's name, run number, lot number or mill number.
- B. All materials to be used, or to be considered as approved equal products, are to be materials that have been used in the industry for a period of five (5) years, and have a proven record of performance. No materials which are less than five years of production will be used.

2.02 RELATED MATERIALS

- A. **PRIMERS:** Joint Primers are required and shall be approved by the sealant manufacturer and specific for the joint surfaces. Based coat primers for porous substrates are to be provided by the manufacturer of the waterproofing sealer manufacturer.
- B. **BOND BREAKER TAPE:** As approved by the sealant manufacturer.
- C. **BACKER ROD:** Backer Rod shall be closed cell polyethelene or Denver Foam open cell polyurethane and of sufficient size to compress 25% when inserted into the joint. Backer rod shall be of bond breaker type and as required by the sealant manufacturer.
- D. **MASKING TAPE:** Masking Tape for masking around joints. Provide an appropriate masking tape which will effectively prevent application of sealant

or surfaces not scheduled to receive it, and which is removable without damage to substrate.

- E. **CLEANING AGENTS:** Cleaning Agents shall be manufacturer approved for use on all existing surfaces.
- F. **CLEANING SOLVENTS:** Cleaning Solvents shall be Methyl Ethyl Ketone or Isopropyl Alcohol.

2.03 SEALANT:

- A. Sealant shall be a one-part, non-sag, silicone sealant:
 - 1. Dow Corning 995 Silicone Structural Glazing Sealant.
 - 2. or Approved Equal.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION:

- A. Ensure that specified application meets with manufacturer approval.
- B. All existing sealant materials including sealant residue shall be cut out and completely removed from the joints around the window frames.
- C. Surfaces to receive new sealant shall be cleaned free of all old sealant residue by grinding down to clean concrete to allow proper application and adhesion of new sealant or other method approved by the sealant manufacturer.
- D. All existing backer rod shall be removed and properly discarded.
- E. Surfaces must be wiped with an approved solvent after grinding to ensure the joint is completely clean, dry, and free from dust or any other foreign matter. Change rags frequently to prevent dust re-contamination of the joints.

3.02 PRIMING OF SURFACES:

- A. Apply specified primers in a manner and in quantities as required by the sealant manufacturer.
- B. Apply primer as specified for porous surfaces.
- C. Apply primer as specified for metal surfaces.
- D. Install the sealant within eight hours of priming, or the manufacturer's requirement whichever is less. Re-prime if the time limit has expired.
- E. Allow sufficient time for the primer to properly cure prior to the application of new sealant.

3.03 BACKER ROD OR BOND BREAKER TAPE APPLICATION:

- A. Install specified backer rod or bond breaker tape in joints as required by the sealant manufacturer.
- B. Avoid lengthwise stretching, twisting, braiding, or puncturing backer rod material.

3.04 MASKING TAPE APPLICATION:

- A. Properly apply masking tape at all joints to receive new sealant to ensure no unintended surfaces become contaminated with primer or sealants.

3.05 SEALANT APPLICATION:

- D. Spacers and setting blocks: Install as indicated on drawings and reviewed shop drawings. Ensure joint openings and recesses are accurately sized.
- E. Sealant backing: Install without gaps, twisting, stretching, or puncturing backing material. Use gage to ensure uniform depth to achieve correct profile, coverage, and performance.
- F. Bond breaker: Install on backside of joint where backing is not feasible.
- G. Temporary glass support: Use temporary fasteners, clips, two-sided adhesive, and other means to retain glass panels while sealant is applied and allowed to cure.
- H. Sealant:
 - 1. Use sealant-dispensing equipment to push sealant bead into opening. Fill joint opening to full and proper configuration. Apply in continuous operation. Ensure sealant fills entire joint and firmly contacts all surfaces.
 - 2. Tooling: Before skinning or curing begins, tool sealant with metal spatula.
 - a. Provide concave, smooth, uniform, sealant finish. Eliminate air pockets and ensure complete contact on both sides of joint opening.
 - b. Tool joints with one continuous stroke.
 - c. Do not use water, soap, or alcohol to facilitate tooling.
- I. Complete horizontal joints prior to vertical joints. Lap vertical sealant over horizontal joints.
- J. Cleaning: Remove masking tape and excess sealant.
 - 1. Uncured sealant: Within 10 minutes of application, remove uncured sealant with solvent-dampened cloth, wearing solvent-resistant gloves.
 - 2. Completely cured sealant: Carefully cut or scrape away.

- K. Allow sealant to fully cure before adhesive is stressed. Use test specimens formed at time of sealant application to verify curing time. When cured, remove temporary glass supports.
- L. Ensure installed sealant is not painted as part of other construction operations.

3.06 FIELD QUALITY CONTROL

- A. Perform adhesion tests in accordance with manufacturer's instructions and ASTM C1193, Method A, Field-Applied Sealant Joint Hand-Pull Tab.
- B. Sealants failing adhesion test shall be removed, substrates cleaned, sealants re-installed, and re-testing performed.
- C. Maintain test log and submit report to Architect indicating tests, locations, dates, results, and remedial actions.

3.07 CLEAN UP:

- A. Clean adjacent surfaces free from sealant as the installation progresses, using solvents, or cleaning agents as recommended by the manufacturer of the sealant.
- B. Upon completion of the work, promptly remove from the job site all debris, empty containers, equipment, and other material derived from this work.
- C. Clean all works and metals of sealants and waterproofing sealers.
- D. Clean the exterior surface of the window to remove any debris, solvents or cleaning agents.
- E. No materials, tools, equipment, etc. will be left on job site during non-working hours.
- F. NOTE: Exceptions to include stages, platforms, and scaffolds.

END OF SECTION

SECTION 09 91 13 EXTERIOR PAINTING

PART 1 - GENERAL

1.01 SCOPE OF WORK:

- A. Provide all labor and materials required to complete all painting and finishing work required by this Specification.
- B. Work shall include:
 - 1. Painting of all new and existing sheet metal flashings and other metal elements which are part of the roof assembly. Pre-finished Kynar coated sheet metal with color approved by the owner does not have to be painted.
 - 2. Painting of any metal or wood component that is stained or contaminated by work performed under this contract.
 - 3. Painting of areas where fence attachments were removed.

1.02 QUALITY ASSURANCE:

- A. Comply with all state and local regulations governing the use of paint materials. All paint primers and finishes will comply with California Air Resource Board and Environmental Protection Agency regulations.

1.03 PRODUCT DELIVERY, STORAGE, AND HANDLING:

- A. Deliver materials to the work site in unopened containers bearing manufacturer's name and product description.
- B. Store materials in a dry, clean, well ventilated area. Close containers.

1.04 TECHNICAL SUBMITTALS

- A. Submittal requirements: Contractor shall highlight anything in the submittal package that conflicts with or changes specifications or drawings. Include a reason for the change. Any submittals that alter existing specifications or drawings shall be approved by the engineer and owner prior to implementation.
- B. The following submittals are to be made in conjunction with any other submittal requirements set forth in the bid documents.
- C. The contractor shall submit the following upon request of the owner or engineer:

1. Manufacturer specification data sheets. Submit for the following products:
 - a. Paint.
 - b. Primer.
2. Manufacturer literature describing the installation procedure of the specified system.

PART 2 - PRODUCTS

2.01 PAINT MATERIALS:

- A. Sinclair Paint Company (ICI Paint Stores)
- B. Dunn-Edwards Paint Corporation
- C. Sherwin-Williams Co.

2.02 EXTERIOR PAINT SYSTEMS:

- A. Zinc Coated Metal & Lead Flashings:
 1. Pretreatment - (ICI Sinclair Vinyl Wash Primer, Dunn-Edwards Galva-Etch GE 123, Sherwin Williams B50W3).
 2. 1st coat - Primer Coat. (ICI Devoe Devguard #4120, Dunn-Edwards W 711, Sherwin Williams B42N8).
 3. 2nd coat - Water base acrylic, semi-gloss enamel finish coat (ICI Sinclair #2406 Decrashield Semigloss Finish, Dunn-Edwards W901, Sherwin Williams A84)
 4. 3rd coat - Water base acrylic, semi-gloss enamel finish coat (ICI Sinclair #2406 Decrashield Semigloss Finish, Dunn-Edwards W901, Sherwin Williams A84)
- B. Wood:
 1. 1st Coat - Exterior Wood Primer (ICI Sinclair Ultra-Hide Durus #2110, Dunn- Edwards W 42-1, Sherwin Williams Y24W20).
 2. 2nd Coat - Water base acrylic, semi-gloss enamel finish coat (ICI Sinclair #2406 Decrashield Semigloss Finish, Dunn-Edwards W901, Sherwin Williams A84)
 3. 3rd Coat - Water base acrylic, semi-gloss enamel finish coat (ICI Sinclair #2406 Decrashield Semigloss Finish, Dunn-Edwards W901, Sherwin Williams A84)

PART 3 - EXECUTION:

3.01 CONDITION OF SURFACES:

Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution, permanence and quality of work. Do not apply paint or finish until conditions are satisfactory.

3.02 PREPARATION:

- A. Prepare surfaces in a skillful manner to produce finish work of first class appearance and durability.
- B. Clean surfaces free of dust, dirt, oil, grease and other foreign matter prior to the application of the prime coat.
- C. Repair all voids, nicks, cracks, dents, etc., with suitable patching material and finish flush to adjacent surface.

3.03 APPLICATION:

- A. Apply material evenly, free from sags, runs, crawls, holidays or defects.
- B. Apply paint by brush, roller or spray.
- C. Employ coats and undercoats for all types of finishes in strict accordance with the recommendations of the paint manufacturer.
- D. Allow each coat to dry before succeeding coat application.

3.04 REINSTALLATION OF REMOVED ITEMS:

Following completion of painting each space, promptly reinstall all items removed for painting, using only workmen skilled in the particular trade.

3.05 CLEANING:

Remove all surplus materials and debris from the work site at completion of each days work. Remove all splatterings from all finish surfaces.

END OF SECTION

SECTION 22 14 26.13

ROOF DRAINAGE

PART 1 - GENERAL

1.01 SCOPE:

- A. The work required under this section consists of all plumbing and roofing related items necessary to complete the work as indicated in the Contract Documents.
- B. The Contractor shall provide all items, articles, materials, operations, methods listed, mentioned or scheduled on the drawings and/or specified herein, including all labor, materials, equipment, and incidentals necessary and required for their completion.
- C. WORK INCLUDED:
 - 1. Provide new condensate drain lines from all condenser units.
 - 2. Install drain inserts as specified.
 - 3. If not present, install overflow drains or scuppers at all primary drains. Overflow drain outlet shall be located 2" above primary drain outlet. Overflow drain opening shall be equal to or greater than primary drain.
 - 4. During the construction process protect exposed roof drain plumbing from debris.
 - 5. The Contractor shall water test all roof drains prior to roof removal to ensure that all drains are clear. The Contractor shall water test all roof drains for leakage and blockage at the completion of the project and shall clear all blocked drain lines.

1.02 REGULATORY REQUIREMENTS:

Provide all work and materials in full accordance with the latest rules and regulations of the State Fire Marshal, safety orders of the Division of Industrial Safety and the Uniform Plumbing Code as published by the Western Plumbing Officials Association and other applicable laws or regulations.

1.03 PROJECT CONDITIONS:

Contractor shall examine and familiarize himself with all site conditions, plans and specifications. Report any discrepancies to PG&E or PG&E's representative prior to bid for clarification. No allowance shall be made to Contractor for failure to comply with this requirement.

1.04 SUBMITTALS:

- A. Drain inserts if not using RAC.

- B. Drain insert capacity (gal/min) for each size drain being used on this project.
- C. Condensate line supports if not using Cooper B-line or PHP.
- D. Any other material not listed in these specifications.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Condensate Line Piping: DWV copper tube. Conform with ASTM B-306. Condensate supports shall be pre-fabricated flexible sleeves.
- B. Pipe Hangers, support rods, anchors: Install in accordance with California Code of Regulations (CCR), Part 2, Title 24. Assemblies will be of standard manufacturer rated for service used. Hanger rods shall have galvanized finish.
- C. Drain inserts – RAC, Thunderbird, Hercules RetroDrain, or approved equal. Drain insert shall be approved by the manufacturer of the membrane being installed. Drain inserts shall have the following characteristics:
 - 1. The reason for requiring drain inserts and replacing Josam type drains is as follows:
 - a. The elimination of a “pressure fit” seal required by Josam type drain systems. Drain inserts do not rely on sealant and pressure fits for water integrity.
 - b. The elimination of a barrier to drainage. Josam type drain rings add ¼” to ½” height that water must build up in order to enter the drain. Drain inserts do not add any height or barrier to drainage eliminated standing water directly around the drain.
 - 2. Insert plumbing shall be the maximum diameter to insert into existing plumbing. Contact drain insert manufacturer to determine proper drain insert diameters.
 - 3. Inserts shall have coated flanges for heat welding into the membrane. If no coated flanged insert is approved by the manufacturer, please provide this in writing. Inserts shall have a metal flange that can be adhered to the roof membrane with a manufacturer approved adhesive.
 - 4. Plumbing insert shall have manufacturer pre-made sealant system. Hand sealant not allowed.
 - 5. Drain insert shall have metal strainer.
 - 6. If interior plumbing does not allow for a drain insert (because plumbing elbows do not allow for enough space for insert), contractor shall obtain a modified drain insert or shorten the insert pipe outlet. Contact drain insert manufacturer for customized unit. Note: The Thunderbird drain inserts have

only a 2" long male insert. These should be sufficient for any drain that elbows directly below the bowl. Also, the Thunderbird male insert comes in 2" diameter.

7. Special Note: If the contractor believes that a drain insert cannot be installed, please notify the engineer by way of RFI. If a drain insert cannot be installed, a credit will be given back to the owner. The existing Josam drain will be modified as directed by the engineer prior to re-installation.
- D. Condensate line supports: Cooper B-line, PHP or approved equal. Provide support unit appropriate for pipes being supported in accordance with manufacturer recommendations.

PART 3 - EXECUTION

3.01 INSTALLATION:

- A. Install drain sumps around all primary drains and scuppers. Drain sumps shall be continuous so that no water stands at the drain areas.
- B. Flash all penetrations of pipe through roof and outside walls with approved method to prevent water or moisture from entering structure.
- C. Install condensation lines in accordance with California Plumbing and Mechanical Codes. Support condensate lines 5' O.C. Condensate lines shall be sloped to drain and shall drain to nearest roof drainage point.
- D. Penetrations through Fire Rated Walls & Ceilings: Pipes passing through fire rated surfaces shall have the space around the pipe sealed with fire rated materials in accordance with all code requirements.
- E. The Contractor shall do all cutting, fitting or patching of existing construction and his work as may be required to install roof drainage equipment to match existing materials. Any cost caused by defective or ill-timed work shall be borne by the party responsible therefore.
- F. Drain inserts:
 1. Install drain inserts in accordance with manufacturer requirements.
 2. Drains shall be set at deck level. If necessary, cut out the existing drain bowl so that the new drain can be installed at the deck level allowing for maximum sumping to the drain.
 3. If drain insert stem is too long, follow manufacturer requirements for shortening stem and installing new sealant system.

3.02 TESTING:

Water test all roof drains and downspouts with a hose prior to completion of project for

a minimum of one hundred eighty (180) minutes. Inspector shall be present during test. All drain lines shall be cleared of debris and any defective conditions corrected to operable condition.

END OF SECTION



ENVIRONMENTAL
CONSULTING LLC

**TECHNICAL SPECIFICATIONS
HAZARDOUS MATERIALS ABATEMENT
OLD COUNTY JAIL
RE-ROOFING PROJECT
LOCATED AT
142 WEST ALISAL STREET IN SALINAS, CALIFORNIA**

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May 23, 2011

M³ PROJECT NO.11032.0 TASK 3

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**SECTION 02080
HAZARDOUS MATERIALS ABATEMENT**

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- Submittals and Substitutions
- Abatement Observation Services
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- M³ Environmental – Hazardous Materials Location Plan

APPENDIX B

- M³ Environmental – Hazardous Materials Inspection Survey

SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work included - Base Bid: The hazardous materials abatement contractor shall be knowledgeable of the conditions for the project, and is responsible for verifying the quantities and locations of all the work to be performed as outlined in this document, as indicated on the architectural contract drawings and as directed by the Owner's Representatives. Failure to do so shall not relieve the abatement contractor of his obligation to provide all materials and labor necessary to carry out the provisions of the Contract. The Abatement Contractor shall furnish all labor, materials, services, permits, insurance (specifically covering the handling and transportation of asbestos-containing material [ACM]), lead-containing paint (LCP), lead-containing materials, and equipment which is specified, shown, or reasonably implied for the following abatement activities

Note that building numbers, room numbers, and names described below may not refer to actual room numbers and names at the building sites. Please refer to drawings provided by M³ in the bid package.

A.1 Old Jail Roofs

A.1.1 Asbestos

1. The removal and disposal, as non-hazardous asbestos containing waste, the following non-friable ACM, including any existing debris:

Roof 1

- a. Material No. 1 – Approximately 180 square feet of black built up roofing material (containing 40% chrysotile asbestos). Non-friable.
- b. Material No. 3 – Approximately 30 square feet of light gray parapet mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- c. Material No. 4 – Approximately 5 square feet of gray mastic (containing 5% chrysotile asbestos) located on the HVAC duct connections. Non-friable.
- d. Material No. 8 – Approximately 50 square feet of black/gray parapet roofing material (containing 60% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

Roof 2

- a. Material No. 1 – Approximately 825 square feet of black built up roofing material (containing 50% chrysotile asbestos). Non-friable.
- b. Material No. 3 – Approximately 120 square feet of light gray parapet mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

- c. Material No. 4 – Approximately 25 square feet of black penetration mastic (containing 10% chrysotile asbestos) located on the roof penetrations. Non-friable.
- d. Material No. 5 – Approximately 12 square feet of dark gray mastic (containing 10% chrysotile asbestos) located on the HVAC duct connections. Non-friable.
- e. Material No. 6 – Approximately 5 square feet of white mastic (containing <1% tremolite asbestos) located on the HVAC duct connections. Non-friable.
- f. Material No. 7 – Approximately 2 square feet of off-white duct tape (containing 85% chrysotile asbestos) located on the HVAC ductwork. Non-friable.
- g. Material No. 10 – Approximately 430 square feet of black/gray parapet roofing material (containing 60% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

Roof 3

- a. Material No. 1 – Approximately 260 square feet of black built up roofing material (containing 8% chrysotile asbestos). Non-friable.

Roof 4

- a. Material No. 1 – Approximately 290 square feet of black built up roofing material (containing 40% chrysotile asbestos). Non-friable.
- b. Material No. 3 – Approximately 6 square feet of black penetration mastic (containing 5% chrysotile asbestos) located on the roof penetrations. Non-friable.
- c. Material No. 4 – Approximately 70 square feet of light gray parapet wall mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- d. Material No. 5 – Approximately 36 square feet of black/gray parapet roofing material (containing 50% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

Roof 5

- a. Material No. 1 – Approximately 490 square feet of black built up roofing material (containing 12% chrysotile asbestos) Non-friable.
- b. Material No. 3 – Approximately 110 square feet of light gray parapet mastic (containing 8% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- c. Material No. 4 – Approximately 110 square feet of black/gray parapet roofing material (containing 60% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

- d. Material No. 5 – Approximately 2 square feet of black pipe insulation (containing 5% chrysotile asbestos) located on the hot water pipes protruding from the concrete wall from the interior. Material is on the pipe elbow and penetration around piping into the wall. Non-friable.
- e. Material No. 7 – Approximately 8 square feet of gray mastic (containing 12% chrysotile asbestos) located on the HVAC ductwork. Non-friable.

Roof 6

- a. Material No. 1 – Approximately 510 square feet of black built up roofing material (containing 10% chrysotile asbestos). Non-friable.
- b. Material No. 3 – Approximately 135 square feet of light gray parapet mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- c. Material No. 4 – Approximately 135 square feet of black/gray parapet roofing material (containing 8% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- d. Material No. 8 – Approximately 1 square foot of gray caulking (containing 10% chrysotile asbestos) on the wall vent. Non-friable.

Roof 7

- a. Material No. 1 – Approximately 170 square feet of black built up roofing material (core sample) (containing 10% chrysotile asbestos). Non-friable.
- b. Material No. 6 – Approximately 40 square feet of black/gray parapet roofing material (containing 15% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

NOTE: The Abatement Contractor is responsible for verifying the quantities of materials identified. See attached architectural plan for locations of roofs and materials to be removed.

A.1.3 – Lead-Containing paint/materials

Contractors performing work in this facility are herein notified that various building components such as roofing HVAC ducting are to be considered lead-containing or are coated with LCP. Lead containing/contaminated waste is to be collected and profiled to determine whether wastes are classified as non-hazardous solid or hazardous waste. For the purposes of this bid, the following painted components and those similar, shall be considered to contain lead, and all waste should be considered non-hazardous waste. A separate line item may be included for disposal of the lead abatement waste that may be classified as hazardous waste in California.

- B. Air Monitoring.** The Owner's on-site representative may conduct daily work area monitoring and final air monitoring. Samples will be analyzed on a 24 hour laboratory turnaround.

C. Schedule of Work. Detailed scheduling requirements shall be coordinated with and approved by the Owner prior to the start of work. Detailed project schedule, including the sequence and phasing of activities, shall be established in conjunction with all trades participating in the project.

D. Abatement Contractor's Duties

1. Except as specifically noted, provide and pay for: Labor, materials, and equipment tools, construction equipment, and machinery, other facilities and services necessary for proper execution and completion of work.
2. Pay legally required sales, consumer, use, payroll, privilege and other taxes.
3. Secure and pay for, as necessary for proper execution and completion of work, and as applicable at the time of bids:

Permits
Government Fees
Licenses
4. Give required notices to local, state, and federal agencies.
5. Comply with all applicable codes, ordinance, rules, regulations, orders and other legal requirements of local, state and federal agencies (e.g., EPA, OSHA). Where conflicts occur between these specifications and/or the above-mentioned regulations, the more stringent shall govern.
6. Enforce strict discipline and good order among employees. Do not employ on the project untrained or unqualified persons.
7. Comply with all applicable federal, state, and local laws regarding job discrimination.
8. The use of the best available technology, procedures, and methods for preparation, execution, cleanup, disposal, and safety are absolutely required. This compliance is the sole responsibility of the Abatement Contractor.
9. Assume responsibility for the proper and safe execution of the work.

E. Coordination: Owner and/or owner's representative shall be responsible for the coordination of the total asbestos abatement project. All other Abatement Contractors and sub-Abatement Contractors shall cooperate with the Abatement Contractor so as to facilitate the general progress of the work. Each trade shall afford all other trades every reasonable opportunity for the completion of their work

1.2 WORK NOT INCLUDED IN THE CONTRACT DOCUMENTS

A. Replacement of removed material and systems

Removal of the following non-asbestos containing materials:

Roof 1

- Material No. 2 – Dark gray mastic – Adhering the tarp to the roof
- Material No. 5 – White mastic – HVAC duct connections
- Material No. 6 – Residual duct tape/wrap – HVAC ductwork

- Material No. 7 – Black penetration mastic – Metal drainage spout from adjacent roof

Roof 2

- Material No. 2 – Dark gray mastic – Adhering the tarp to the roof
- Material No. 8 – Foil wrap over fiberglass insulation – HVAC duct penetration
- Material No. 9 – White caulking – Skylight window frame

Roof 3

- Material No. 1 – Approximately 260 square feet of black roofing material (core sample) (containing 8% chrysotile asbestos) located on the roof. Non-friable.

Roof 4

- All of the materials sampled were determined to contain detectable concentrations of asbestos.

Roof 5

- Material No. 6 – White fibrous insulation material – Underneath support clamps on hot water pipes

Roof 6

- Material No. 2 – Dark gray mastic – Adhering the tarp to the roof
- Material No. 5 – Black penetration mastic – Metal flue penetration
- Material No. 6 – Gray duct tape and residual gray mastic – HVAC unit and ductwork
- Material No. 7 – Gray flex connector – HVAC unit

Roof 7

- Material No. 4 – Black parapet roofing material – Around wood penetration
- Material No. 5 – White caulking (plaster) – Metal drainage spout from adjacent roof
- Material No. 7 – Gray duct tape – HVAC duct penetration

1.3 EXISTING CONDITIONS

- A. Existing conditions are reflected correctly to the best of M³'s and the Owner's knowledge. Should minor conditions be encountered which are not exactly as indicated, modification to new work shall be made as required at no additional expense to the building owner.
- B. Results of tests of hazardous materials are included in these contract documents. The Abatement Contractor is cautioned that, should interpretations be made, opinions be formed, and conclusions be drawn as a result of examining the test results, those interpretations, opinions, and conclusions will be those made, formed, and drawn solely by the Abatement Contractor.
- C. The Abatement Contractor is advised that the locations of all hazardous materials may not be clearly known and that he shall proceed with caution in all phases of the work. ACM may be uncovered during the course of the work and the Abatement Contractor

may be directed by the Owner to include this material in the work at an agreed upon price.

1.4 PHASING

- A. The Owner will relinquish to the Abatement Contractor the abatement areas for the duration of the project.

1.5 STORAGE

- A. Limited storage space may be provided by the Owner.

1.6 BUILDING OCCUPANCY AND ACCESS RESTRICTIONS

- A. The building may be occupied for the duration of the project.
- B. The Abatement Contractor's employees will be confined to the work area in which work is being performed for the duration of their shift. Sufficient space for the taking of breaks and lunch will be designated by the Owner. No smoking will be permitted on the premises (Building or Grounds).

1.7 WORKING DAYS AND HOURS

- A. Schedule
 - 1. The Owner will provide the overall construction schedule that will also indicate the required dates for hazardous materials abatement. The Abatement Contractor shall be responsible for compliance with the schedule.
 - 2. The Owner shall be in contact with the Abatement Contractor regarding the schedule for abatement work, and the Abatement Contractor shall be available to perform work in accordance with the schedule.
- B. Obtain approval from the Owner and/or owner's representative prior to altering work schedule.

1.8 TELEPHONES

- A. Installation of a site telephone will not be required by the Abatement Contractor.

1.9 PARKING

- A. Limited parking will be available on the property.

1.10 BUILDING SECURITY

- A. Maintain personnel on the site at all times when any portion of the work area(s), is open or not properly secured including at hazardous waste transport vehicle. Secure work areas completely at the end of each working day.

1.11 SEGREGATION OF WORK AREAS

- A. Segregate work areas from the surrounding occupied or unoccupied areas.

1.12 OBSERVATIONS

- A. An air monitoring and observation service will observe the status and progress of the work for completeness and general compliance with the requirements of the contract documents. See Abatement Observation Service Section for further information.

1.13 SIGN-IN/OUT LOG

- A. All of the Abatement Contractor's personnel and project site visitors shall sign-in/out on a daily basis for the duration of this portion of the project.

1.14 UTILITIES

- A. Electrical power and water to the building will not be disabled. The Abatement Contractor will have access to power and water during abatement activities from adjacent buildings.

1.15 SALVAGEABLE MATERIALS

- A. Consider all asbestos and lead materials and contaminated items demolished or removed in the execution of the work unsalvageable unless specifically noted otherwise in these specifications.

1.16 WORK BY OTHERS

- A. Coordinate and schedule the work of these specifications in a manner that will expedite the transition to future work by others under this contract.
- B. Work by others includes, but is not necessarily limited to the following:
 - 1. Electrical
 - 2. Mechanical

1.17 HVAC AND ELECTRICAL SYSTEM

- A. HVAC and electrical systems may not have been disabled at the site. Shut down execution or improper execution by the Owner does not relieve the Abatement Contractor of his responsibility to protect his employees, the public and others performing services on the project from injury or electrical hazards. The Abatement Contractor shall be responsible for performing testing, inspecting and the taking of other precautions to insure the safety of the project.

1.18 ABATEMENT CONTRACTOR USE OF PREMISES

- A. Disagreements between Abatement Contractor and other contractors about concurrent use of work areas or access to the site that are not resolved by the participants shall be referred to the Owner. Abatement Contractor shall agree to abide by the Owner's determination as to concurrent use or priority of access and to perform its work in compliance with the Owner's resolution at no additional cost to the Owner.
- B. **USE OF THE SITE:** Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed. Conform to site rules and regulations affecting the work while engaged in project construction.

1. Keep existing driveways and entrances serving the premises clear and available to the Owner and its employees at all times. Do not use these areas for parking or storage of materials.
 2. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to areas acceptable to the Owner. If additional storage is necessary, obtain and pay for such storage off-site.
 3. Do not load structure with weight that will endanger structure.
 4. Assume full responsibility for protection and safekeeping of products stored on premises.
 5. Move any stored products that interfere with operations of the Owner or other Abatement Contractors.
 6. Take all cautions necessary to ensure there is no hazardous materials contamination to those areas not included in work schedule. Should areas outside the work area become contaminated with hazardous material containing materials, the Abatement Contractor shall immediately inform the Owner's Representative and proceed to clean the areas as directed by the Owner's Representative utilizing the wet cleaning and High Efficiency Particulate Air (HEPA) vacuum methods specified herein.
- C. ABATEMENT CONTRACTOR'S USE OF THE EXISTING BUILDING: Maintain the existing building in a safe condition throughout the construction period. Take all precautions necessary to protect the building and its occupants during the construction period.
1. Keep public areas such as hallways, stairs, and toilet rooms free from accumulation of waste material, rubbish or construction debris.
 2. Smoking will not be permitted within the project area or any other location within the building.
- D. SECURITY: Comply with standard the Owner security requirements. All Abatement Contractor's personnel must wear or maintain required identification when on site.

1.19 OWNER OCCUPANCY:

- A. PARTIAL OWNER OCCUPANCY: the Owner reserves the right to place and install equipment as necessary in areas of the building in which all abatement and project decontamination procedures have been completed, and to occupy such completed areas prior to substantial completion, provided that such occupancy does not substantially interfere with completion of the work. Such placing of equipment and partial occupancy shall not constitute acceptance of the work.

1.20 APPLICABILITY OF ALL SECTIONS OF SPECIFICATIONS:

- A. All sections of the project manual are interdependent and applicable to the Project as a whole.

1.21 DIVISION OF SPECIFICATIONS:

- A. The specifications are divided for convenience into sections as set forth in the Contents. The actual limitation of work in the various trades and/or sections of the specifications are the responsibility of the Abatement Contractor.

1.22 EXAMINATION OF THE SITE AND VERIFICATION OF CONDITIONS:

- A. Abatement Contractor shall examine the site and become acquainted with the conditions under which the work is to be carried out. Upon submitting Abatement Contractor's bid, Abatement Contractor shall be held to have made such examination, and no allowance for extras will be allowed for any error or oversight resulting from Abatement Contractor's unfamiliarity with the site or existing conditions. Abatement Contractor shall obtain accurate field dimensions of all related areas, spaces, openings, levels, and items of adjacent work and, before commencing work, report to the Owner and/or owner's representative in writing all discrepancies between the Contract Documents and the actual field conditions.

1.23 OWNER RULES

- A. The Abatement Contractor shall abide by all facility security rules and regulations.

END OF SECTION

SUBMITTALS AND SUBSTITUTIONS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Make submittals required by these specifications and revise and resubmit as necessary to establish compliance with the specified requirements. **Submit documents listed in Asbestos Abatement Section item 1.4 "Submittals and Notifications".**
- B. Related Work:
1. Documents affecting work of this Section include, but are not necessarily limited to sections in Division 1 - General Requirements of these specifications.
 2. Individual requirements for submittals also may be described in pertinent sections of these specifications.
- C. Work not included:
- The Abatement Contractor may require his sub-abatement Contractors to provide drawings, setting diagrams, and similar information to help coordinate the work, but such data shall remain between the Abatement Contractor and his sub-abatement Contractors.

1.2 QUALITY ASSURANCE

- A. Coordination of submittals:
1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
 2. Verify that each item and the submittal for it conform in all respects with the specified requirements.
 3. By affixing the Abatement Contractor's signature to each submittal, certify that this coordination has been performed.
- B. Substitutions:
1. The contract is based on the standards of quality established in the specifications. Substitutions will be considered only when listed at the time of bidding, on the Substitution Listing form provided, and when substantiated by the Abatement Contractor's submittal of required data within ten days after the award of the contract.

NOTE: Some materials or equipment specified cannot be substituted. These materials or equipment will be followed by the statement "no substitution will be considered." The Owner shall have final determination on approval or rejection of substitutions.

2. The following products do not require further approval except for interface with the work:

- a. Products specified by reference to standard specifications such as ASTM and similar standards.
- 3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this work by the Owner.
- C. "Or equal":
 - 1. Where the phrase "or equal," or "or equal as approved by the Owner occurs in these specifications, do not assume that the materials, equipment, or methods will be approved as "equal" unless the item has been specifically so approved for this work.
 - 2. Decisions of the Owner shall be final.

1.3 SUBMITTALS

- A. Make submittals of shop drawings, samples, substitution requests, and other items under the provisions of these specifications.

PART 2 - EXECUTION

2.1 IDENTIFICATION OF SUBMITTALS

- A. When material is re-submitted for any reason, send under a new letter of transmittal.
- B. Accompany each submittal with a letter of transmittal showing all information required for identification and checking.
- C. Maintain an accurate submittal log for the duration of the work, showing current status of all submittals at all times. Make the log available to the Owner and M³ for review upon request.

2.2 GROUPING OF SUBMITTALS

- A. Unless otherwise specified, make submittals in groups containing all associated items to insure that information is available for checking each item when it is received.
 - 1. Partial submittals may be rejected as not complying with the provisions of the contract.
 - 2. The Abatement Contractor may be held liable for delays so occasioned.

2.3 TIMING OF SUBMITTALS

- A. Make submittals far enough before scheduled dates or abatement to provide time for reviews, for securing necessary approvals, for possible revisions and re-submittals, and for placing orders and securing delivery.
- B. In scheduling, allow at least 10 working days for review receipt of the submittals.

2.4 REVIEW BY OWNER OR OWNER'S REPRESENTATIVE

- A. Review by the Owner and the Owner's representatives does not relieve the Abatement Contractor from responsibility for errors that may exist in the submitted data.

- B. Revisions:
1. Make revisions required by the Owner or their representative.
 2. If the Abatement Contractor considers any required revision to be a change, he shall so notify the Owner and the Owner's representative in writing.
 3. Make only those revisions directed or approved by the Owner or the Owner's representative.
- C. Reimbursement of the Owner or the Owner's Representative's costs:
1. In the event substitutions are proposed to the Owner and the Owner's representative after the contract has been awarded, the Owner and the Owner's representative will record all time used by him and by his consultants in evaluation of each such proposed substitution.
 2. Whether the Owner or the Owner's representative approves or disapproves a proposed substitution, the Abatement Contractor, promptly upon receipt of billing from the Owner or the Owner's representative, shall reimburse the Owner the normal billing rate of the Owner and the Owner's representative, or the Owner is authorized to withhold funds from the contract sum for all time spent by the aforesaid in evaluating the proposed substitution.

END OF SECTION

ABATEMENT OBSERVATION SERVICES

The following are not contractual requirements, but are submitted for the information of the Abatement Contractor. The Owner will contract with a hazardous materials abatement monitoring and observation service to provide services described herein. The Owner reserves the right to make modifications in such observation services.

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Owner will contract with an independent abatement observation service, as specified herein.
- B. Related Work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, Sections in Division 1 - General Requirements of these specifications.

1.2 SUBMITTALS

- A. The observation service shall secure the Owner's advance approval of date and time for the pre-project meeting and safety conference.
 - 1. Notify the Owner, building personnel, the Abatement Contractor, and other interested parties, and secure their agreement to attend.
 - 2. The safety conference shall include discussions of the Abatement Contractor's safety program and such means, methods, devices, processes, practices, conditions or operations as the Abatement Contractor intend to use in providing a safe place of employment.
 - 3. The safety conference shall include representatives of the Owner and the Abatement Contractor.
- B. Records:
 - 1. The observation service shall maintain a complete and legible file, in chronological order, containing a copy of each of the following: meeting minutes, field report, submittal, hazardous waste manifest, air, bulk and core sample monitoring results, governing agency notification and correspondence, employee and visitor attendance log and other communications received relative to the work of this section.
 - 2. Upon completion of the abatement project, deliver one copy of the job book to the Owner. The job book shall include all records herein before specified, project specifications, contracts, certificate of worker's release, employee medical reports, Abatement Contractor's work procedures, employee training certification, product and equipment data and all other documents, correspondence, and information relative to the project.
 - 3. At the conclusion of this contract, submit the Project Record Documents to the Owner.

PART 2 - EXECUTION

2.1 COORDINATION

- A. Coordinate, as necessary, with other trades to insure proper and adequate provision in the work of those trades for interface with the work of this section.
- B. Coordinate, as necessary, with the Owner and the Abatement Contractor to assure proper execution of these specifications.

2.2 PRE-PROJECT MEETING AND SAFETY CONFERENCE

- A. Conduct a Pre-Project Meeting and Safety Conference at the job site and:
 - 1. Except as otherwise directed by the Owner, the Owner's representative will conduct the meeting, will take minutes of the meeting, and will record all agreements reached as a result of the job walk and meeting.
 - 2. Visually inspect all rooms, areas, and cavities where abatement work is scheduled. Determine general acceptability of the work areas by the Abatement Contractor, and determine areas requiring further pre-project preparation by the Owner. Inspections that create hazards for the safety conference participants or facility occupants are prohibited.
 - 3. Discuss the proposed schedule for the asbestos abatement work, as well as the appropriate work days and work hours.
 - 4. Discuss proposed engineering controls, including methods for establishing contained work areas and decontamination enclosure systems, and the equipment to be used.
 - 5. Discuss proposed work procedures, including removal and cleaning methods and personnel to be used.
 - 6. Discuss potential problems arising from use of engineering controls, methods and procedures that are not in conformance with the specifications.
 - 7. Discuss observation methods to be used, and reports to be issued by the observation service.
 - 8. Discuss air testing procedures and standards for clearance testing.
 - 9. Discuss responsibilities of observation service.
 - 10. Discuss the Abatement Contractor's safety program, including emergency procedures, to insure a safe place of employment.
 - 11. Discuss the Abatement Contractor's security program.

2.3 OBSERVATION DURING ABATEMENT ACTIVITIES

- A. Verify that abatement materials delivered to the job site, are those approved or specified for use on this work and that all equipment arriving on site is clean and is not contaminated from a previous job site. Any equipment arriving on site that is deemed by the on-site technician to be dirty or unsafe must be cleaned off site or removed. The abatement contractor will provide the on-site technician with the proper documentation (in

the form of pre-submittal book solely for use by the on-site technician), pertaining to the workers certification, job notifications (Fed/OSHA, Cal/OSHA, MBUAPCD), MSDS Sheets, etc. Aerosol challenge testing of all negative air machines and HEPA vacuums will be performed on site before the commencement of abatement by the abatement contractor at his cost. The equipment that was tested and passed will remain on site for all phases of the project and the proper documentation will be submitted to the on-site technician.

- B. Visually observe progress of work, including but not necessarily limited to the following:
1. Verify contained work areas and decontamination enclosure system design and installation.
 2. Verify that abatement engineering controls; methods and procedures specified by the specifications are being followed.
 3. Call the attention of the Abatement Contractor's representative on the job to unacceptable engineering controls, methods and procedures or unacceptable results.
 4. Report to the Owner or the Owner's Representative if the Abatement Contractor fails to correct unacceptable methods and procedures or unacceptable results.
 5. Conduct air monitoring and collect bulk samples in accordance with other sections of this specification.
 6. Conduct periodic reviews of isolation and containment barriers to determine if they are in compliance with the requirements of the specifications.
- C. Perform air monitoring throughout the project to insure that the work is done in conformance with the asbestos fiber concentration limits specified herein.
1. Conduct area monitoring inside and outside of the regulated work areas determined to be appropriate. Provide area monitoring at least once every work shift for the duration of the abatement. Monitoring shall be conducted inside the work areas and at critical locations adjacent to the work area, including inside of the building. At the discretion of the observation service, more frequent area monitoring may be provided.
- D. Make Pre-final and Final Reviews of the Project.
1. Compile a punch list during the pre-final review of unacceptable results to be corrected.
 2. Deliver a copy of the punch list to the Abatement Contractor, and to others as appropriate.
 3. Verify proper resolution or mitigation of all items on the punch list during the final review(s).
- E. Conduct clearance asbestos inspections as defined in these specifications.

2.4 STOPPING THE WORK

- A. If, at any time, the Owner, the Owner's Representative, or the observation service decides that work practices are violating pertinent regulations or, in its opinion, endangering

building users, workers, the Owner employees, or the public, it will immediately notify the Abatement Contractor (followed up in writing) that operations shall cease until corrective action is taken by the Abatement Contractor. The Abatement Contractor shall take such corrective action before proceeding with the work. Loss or damage due to stop work order(s) shall be the Abatement Contractor's responsibility.

1. A stop work order, issued by the Owner, the Owner's Representative, or the observation service, shall be effective immediately if area air monitoring results inside or outside the work area exceed the airborne concentration limits specified herein as the "Maximum Acceptable Level." Work will stop until the Abatement Contractor's work practices are amended to the satisfaction of the Owner, the Owner's Representative, or the observation service. Standby time required to resolve the violation shall be at the Abatement Contractor's expense.
2. A stop work order shall be effective immediately if the work is found to be in violation of these specifications. Work will stop until the violation is resolved. Standby time required to resolve the violation shall be at the Abatement Contractor's expense.

2.5 REPORTS

- A. Make daily written reports of observation activities for the Owner's use.
- B. Initiate or issue notices to proceed, stop work order notices, and other formal notices to the Abatement Contractor and the Owner.
- C. Issue "Certificate of Completion" or "Certificate of Substantial Completion" upon correction of the punch list items.
- D. Upon completion of the project, compile a job book covering activities performed under this Section, and deliver one copy to the Owner.

2.6 LIMITS OF RESPONSIBILITIES

- A. During progress of the project, the observation service is required to:
 1. Make visual observations and compile reports described in this Section.
 2. Advise the Abatement Contractor's representative on the job as to unacceptable methods and procedures and unacceptable results when so observed.
- B. In connection with this project, "unacceptable methods and procedures, and unacceptable results" mean methods and results other than:
 1. Those recommended by the manufacturer of approved products and materials.
 2. Those required by pertinent regulations of governmental agencies having jurisdiction.
 3. Those required by these specifications.

NOTE: When conflicts occur among the above standards, the most stringent shall apply.

- C. The observation service is not empowered to:
 1. Act for, or in lieu of, representatives of the governmental regulatory agencies

having jurisdiction.

2. Give directions to the Abatement Contractor, the Abatement Contractor's consultant, sub-abatement Contractor, or workers on the job beyond the authority of stated in these specifications.
- D. Failure of the Owner, the Owner's Representative, or the observation service to notice unacceptable methods, materials and procedures or unacceptable results during progress of the work will not absolve the Abatement Contractor from his responsibility to complete the work in accordance with the specified requirements and the agreed methods.

END OF SECTION

PRODUCT HANDLING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Protect products scheduled for use in the work by means including, but not necessarily limited to, those described in this Section.
- B. Related Work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to General Requirements of these Specifications.
 - 2. Additional procedures also may be prescribed in other Sections of these specifications.

1.2 QUALITY ASSURANCE

- A. Include within the Abatement Contractor's quality assurance program such procedures as are required to insure full protection of work and materials.

1.3 MANUFACTURERS' RECOMMENDATIONS

- A. Except as otherwise approved by the Owner, the Owner's Representative, or the observation service, determine and comply with manufacturers' recommendations on product handling, storage, and protection.

1.4 PACKAGING

- A. Deliver products to the job site in their manufacturer's original container, with labels intact and legible.
 - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
 - 2. Promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to the Owner.
- B. The Owner, the Owner's Representative, or the observation service may reject as noncomplying such material and products that do not bear satisfactory identification as to manufacturer, grade, quality, and other pertinent information.

END OF SECTION

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. Throughout the progress of the work, the Abatement Contractor will notify the observation service in writing of all hazardous materials specified to be removed under this contract which, when verified to meet one of three categories described below, will not be removed from the work area. This will be done so that the "Project Record Documents" can be annotated to provide factual information regarding all aspects of the work and to enable future modifications of the building to proceed with a reduced risk of exposure to unknown deposits of ACM and LCP. Materials that shall be identified in the project record documents include:
 - a. Hazardous Materials that cannot be removed without causing damage to structural (load bearing) members of the building. This does not include situations in which the specifications specifically authorize the destruction of structural members to access hazardous materials.
 - b. Hazardous Materials discovered in the work area during the course of the project which were not part of the scope of work and have not been added to the scope of work by the Owner.

- B. Related Work: Documents affecting work of this Section include, but are not necessarily limited to Sections in Division 1 - General Requirements of these Specifications.

1.2 QUALITY ASSURANCE

- A. The supervisor or foreman of each crew will be instructed to report any known or suspected ACM that cannot be removed to the observation service within 24 hours of encountering the material. Once it has been determined that the materials shall not be removed, the Abatement Contractor shall legibly annotate the description and quantities of the material on a separate set of construction plans. The plans are to be submitted to the observation service at the conclusion of the abatement phase of this contract.

PART 2 - PRODUCT

2.1 FINAL REVIEW

- A. The crew foremen and supervisors shall conduct a review of the annotated project record documents with the observation service to insure that all ACM, which will remain at the site, have been noted. The review may take place during the pre-final review, but before any enclosure work, which would prohibit verification of the material.
- B. The Abatement Contractor shall sign an affidavit stating that the project record documents are correct to the best of his knowledge.

END OF SECTION

ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work included: Abatement Contractor shall furnish all labor, materials, services, permits, insurance (specifically covering the handling and transportation of Hazardous Material and equipment which is specified, shown, or reasonably implied for asbestos abatement activities.

B. Related Work: None.

C. Applicable Publications: The publications listed below form a part of these Specifications to the extent referenced. The publications are referred to in the text by the basic designation only.

1. Code of Federal Regulations (CFR) Publications:

29 CFR 1910.1001	Asbestos
29 CFR 1910.1200	Hazard Communication
29 CFR 1910.20	Access to Employee Exposure and Medical Records
29 CFR 1910.132	General Requirements - Personal Protective Equipment
29 CFR 1910.133	Eye and Face Protection
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.145	Specifications for Accident Prevention, Signs and Tags
29 CFR 1926.1101	Asbestos
40 CFR 61, Subpart A	General Conditions
40 CFR 61, Subpart M	National Emission Standards for Asbestos
40 CFR 61.152	Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations
40 CFR Part 763	Asbestos Containing Materials Schools; Final Rule and Notice

2. American National Standard Institute (ANSI) Publications:

Z9.2-1979	Fundamentals Governing The Design and Operation of Local Exhaust Systems
Z88.2-1992	Practices for Respiratory Protection

3. National Fire Protection Association (NFPA):
 - 70-1984 National Electric Code
 - 10-1984 Fire Extinguishers
4. U. S. Environmental Protection Agency (EPA):
 - Publication No. 560/5-85-024 Guidance for Controlling Asbestos-Containing Materials in Buildings, June, 1985
5. American Society for Testing Materials (ASTM) Publications:
 - E 849-82 Safety and Health Requirements Relating to Occupational Exposures to Asbestos
 - P-189 Specifications for Encapsulants for Friable Asbestos-Containing Materials
6. National Institute of Occupational Safety and Health (NIOSH) Publications:
 - Manual of Analytical Methods, 2nd Ed., Vol. 1. Physical and Chemical Analysis Method (P&CAM):
 - Method 7400 Fibers (N1, 3rd Ed., Vol. 1.)
7. Underwriters Laboratories, Inc. (UL) Publications:
 - 586-77 (R1982) Test Performance of High Efficiency, Particulate, Air Filter Units
8. Title 8 California Code of Regulations :
 - Section 5208 General Industry Safety Orders
 - Section 5144 Respirator Regulations
 - Section 1529 Construction Industry Safety Orders, Asbestos Standard
 - Section 341.6 -341.14 Registration for Asbestos Related Work
9. Monterey Bay Unified Air Pollution Control District Rule 424

1.2 DEFINITIONS

Abatement: Procedures to control fiber release from asbestos-containing building materials. Includes removal, encapsulation, and enclosure.

AHERA: - Asbestos Hazard Emergency Response Act.

Air Lock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area.

Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time.

Air Sampling Professional: The professional contracted or employed to supervise air monitoring and analysis schemes. This individual is also responsible for recognition of technical deficiencies in worker protection equipment and procedures during both planning and on-site phases of an abatement project.

Amended Water: Water to which a surfactant has been added.

Area Monitoring: Sampling of airborne fiber concentrations

Asbestos: Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered.

Asbestos-Containing Material (ACM): Material composed of asbestos of any type in an amount greater than 1 percent and by weight, either alone or mixed with other fibrous or nonfibrous materials.

Asbestos-Containing Construction Material (California definition): Any manufactured construction material which contains more than 1/10th of 1% asbestos by weight.

Asbestos Fibers: Asbestos fibers at least 5 micrometers in length having an aspect ratio of at least 3:1.

Authorized Visitor: Owner or Owner's Representative, Observation Service and any representative of a regulatory or other agency having jurisdiction over the Project.

Clean Room: An uncontaminated area or room which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

Contained Work Area: A work area which has been isolated, plasticized, and equipped with a decontamination enclosure system.

Curtained Doorway: A device to allow ingress or egress from one area to another while permitting minimal air movement between the areas, typically constructed by placing three overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, and securing the vertical edge of the outer two sheets along the opposite vertical side of the doorway.

Decontamination Enclosure System: A series of connected rooms, with air locks or curtained doorways between any two adjacent rooms, for the decontamination of workers and of materials and equipment. A decontamination enclosure system always contains at least one air lock to the work area.

Encapsulant (sealant): A liquid material which can be applied to ACM and which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

Encapsulation: All herein-specified procedures necessary to apply an encapsulant to asbestos-containing building materials to control the possible release of asbestos fibers into the ambient air.

Enclosure: All herein-specified procedures necessary to enclose completely ACM behind airtight, impermeable, permanent barriers.

Excursion Limit: An exposure of airborne concentrations of asbestos fibers of one fiber per cubic centimeter of air (1f/cc) over a sampling period of thirty minutes.

Equipment Room: A contaminated area or room which is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

Equipment Decontamination Enclosure: That portion of a Decontamination Enclosure System designed for controlled transfer of materials, waste containers and equipment, typically consisting of a washroom and a holding area.

Friable Asbestos Material (40 CFR, Subpart M Definition): Material that contains more than one percent (1%) asbestos by weight and that can be broken, crumbled, pulverized, or reduced to powder by hand pressure when dry.

Fixed Object: A unit of equipment or furniture or other building component which cannot be detached from the building or can only be detached by destructive methods resulting in irreparable damage to the item.

Glovebag Method: A method with limited applications for removing small amounts of friable ACM from HVAC ducts, piping runs, valves, joints, elbows. The glovebag (typically constructed of 6-mil transparent polyethylene has two inward-projecting long sleeve rubber gloves, one and an internal tool pouch. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be abated and contains all asbestos fibers released during the removal process. All workers who are permitted to use the glovebag method must be highly trained, experienced, and skilled in this method.

HEPA Filter: A high efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97 percent of all monodispersed particles including equal to or greater than 0.3 microns in mass median aerodynamic equivalent diameter.

HEPA Vacuum Equipment: Vacuuming equipment with a HEPA filter system.

Holding Area: A room in the equipment decontamination enclosure located between the washroom and an uncontaminated area. The holding area comprises an air lock.

Isolation: The sealing of all openings into a work area.

Isolated (noncontained) Work Area: A work area which is isolated, but has not been plasticized and may or may not be equipped with a decontamination enclosure system.

Maximum Acceptable Level: An exposure of airborne concentrations of fibers of 0.1 f/cc at any time within the contained work areas, and 0.01 f/cc outside of the work areas by PCM. This level is a contractual standard for this Project.

Movable Object: A unit of equipment, furniture or other building component which is detached or can be detached from the building without destructive methods or results.

Negative Air Pressure Equipment: A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas.

Non-friable Asbestos-Containing Material: Material that contains more than one percent asbestos by weight in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and will not release fibers during any appropriate end-use, handling, demolition, storage, transportation, processing, or disposal.

Observation Service: The agent of Owner or Owner's Representative who shall observe the work, perform tests, verify that abatement methods and procedures specified are being complied with, and reports all observations and test results to Owner or Owner's Representative.

Permissible Exposure Limit (PEL): An airborne concentration of asbestos, in excess of 0.1 fibers per cubic centimeter of air as an 8-hour time-weighted average (TWA), as determined by the method prescribed in Appendix A of Section Five, Part 1926.58 (C) (amended) §1926.1101 (c).CFR.

Personal Monitoring: Sampling of Asbestos fiber concentrations within the breathing zone of an Asbestos Worker.

Plasticize: To cover floors, walls and other structural elements of a work area with polyethylene sheeting as herein specified with all seams securely taped with duct tape.

Removal: All herein-specified procedures necessary to remove ACM from the designated areas and to dispose of these materials at an acceptable site.

Shower Room: A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold or warm running water, and suitably arranged for complete showering during decontamination.

Surfactant: A chemical wetting agent added to water to reduce surface tension and improve penetration into the ACM.

TEM: Transmission Electron Microscopy

Washroom: A room between the work area and the holding area in the equipment decontamination enclosure system where equipment and waste containers are decontaminated.

Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as asbestos-contaminated waste.

Work Area (Also known as "Regulated Area"): Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area is a work area which has been isolated, plasticized, and equipped with a decontamination enclosure system. An isolated (non-contained) work area is a work area which is isolated, but has not been plasticized and may or may not be equipped with a decontamination enclosure system.

Worker Decontamination Enclosure System: That portion of a decontamination enclosure system designed for controlled passage of workers, and other personnel and authorized visitors, typically consisting of a clean room, a shower room, and an equipment room.

1.3 QUALITY CONTROL

- A. **Safety Compliance:** In addition to detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities and publications regarding handling, storing, transporting, and disposing of asbestos waste materials. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the work. Where the requirements of this specification and referenced documents vary, the most stringent requirement shall apply.
- B. Abatement Contractor shall have at least one copy each of 29 CFR Part 1910 - Occupational Safety and Health Standards, 29 CFR 1926.1101, 40 CFR Part 61, Subparts A & M, and all pertinent state and local regulations at his office and at the job site.
- C. Before the commencement of any work at the site, the Abatement Contractor shall post bilingual (as appropriate) EPA and OSHA caution signs in and around the work area to comply with EPA and OSHA regulations.
- D. Area Monitoring shall be performed by the observation service, who will conduct air sampling of the Abatement Project (1) immediately outside the work area, and (2) in the work area.
- E. Personal monitoring and other monitoring, which is required by law, or considered necessary by the Abatement Contractor for worker protection shall be the responsibility of the Abatement Contractor.

1.4 SUBMITTALS AND NOTIFICATIONS

Not less than **10** working days prior to the pre-construction meeting, the Abatement Contractor shall submit the following documents. No work will be allowed to start until these documents have been reviewed and approved in writing by the Observation Service.

- A. **Personnel Training:** Abatement Contractor shall submit for review (1) declaration certifying that all Abatement Contractor's employees have been adequately trained, and (2) a photocopy of training certificates for each employee from their respective training agency or organization. When certified or other formal worker training is required by state or local agencies, Abatement Contractor may submit a photocopy of the employee's asbestos worker certification card in lieu of training certificates. Distinguish between full-time personnel and pick up labor.
- B. **Respirators:** Submit for review manufacturer's certification that the respirators to be used in this project comply with government agency requirements. Abatement Contractor's certifications for each employee must clearly state that each employee has been fit tested and properly trained in the use of respirators.
- C. **Medical Examinations:** Submit proof that all persons who will be entering contaminated areas have current (less than one year prior to the date of their participation on the

project) medical examinations in accordance with the Cal/OSHA asbestos standard. Furnish physician's interpretation of said examinations to the observation service.

- D. Product Submittals and Substitutions:** Comply with pertinent provisions of Section 01340.
- E. Abatement Product Data:** Within five days after the Abatement Contractor has received Owner notice of award, submit manufacturer's catalogue, samples, material data safety sheets, (MSDS) and other items needed to demonstrate fully the quality of the proposed abatement materials. Under no circumstances shall proposed materials be used before written approval from the Owner or the observation service. Submittals are required if the following materials are proposed (not necessarily a complete list.) Do not submit data on products not proposed for this project:
1. Encapsulant
 2. Surfactant
 3. Polyethylene Sheeting
 4. Lagging adhesive
 5. Glovebags
 6. Solvents
 7. Mastic Removers
 8. Spray Glue
- F. Permits:** Submit for review proof satisfactory to Owner and the observation service that all required permits have been obtained. If no permits are required, submit notarized letter stating such.
- G. Waste Transportation:** Submit for review the method of transport of hazardous waste, including the name, address, EPA ID number, and telephone number of the transporter(s). Include a copy of the hazardous waste hauler registration with the California Department of Health Services (DOSH).
- H. Hazardous Waste Disposal Facility:** Submit for approval the name, address, EPA ID number, and telephone number of the hazardous waste disposal facility(s) to be used. Include copy of letter of approval from the California Regional Water Quality Control Board for the disposal facility for asbestos.
- I. Abatement Contractor's Work Plan:** Submit for approval a detailed plan of the work procedures to be used in the removal, repair, clean-up or encapsulation of ACM. The asbestos plan must be approved in writing by Owner and the observation service before the start of any work. Such a plan shall include:
1. Project Work Area Drawings: Show on Abatement Contractor-developed drawings or sketch (not to scale) any changes to the (proposal submitted) floor plans and drawings, delineating the regulated areas (individually numbered), the location of all fire extinguishers, and entrances and emergency exits to and from the work areas.

Show the location and construction of storage facilities and field office and security provisions in and around the premises.

2. Layout and construction details of decontamination enclosure systems. Include a sketch.
 3. Project schedule including important milestones (onsite mobilization, work area preparation, asbestos-containing material removal, ACM waste bag out, detail cleaning/surface decontamination, final clearance evaluation, completion date, etc.) critical paths and interface of trades involved in the Work.
 4. Manpower estimate by work shift.
 5. Schedule for waste removal.
 6. Requirements for material handling and or installation of large equipment (e.g. elevator access).
 7. Procedures for isolating the ventilation system.
 8. Proposed method of sealing openings to the inside of column casings, wall spaces, attics, or other openings.
 10. Asbestos removal methods and procedures.
 11. Procedures for decontamination of personnel, work areas, and equipment.
 12. Procedures for final decontamination of work area and cleanup.
 13. Procedures for handling waste disposal, and location of proposed disposal site.
 14. Personal air monitoring procedures.
 15. Names of superintendent, foremen, project manager and other key personnel, and their day time and emergency telephone numbers.
 16. Security Plan including sketches necessary to clearly describe the plan.
 17. A contingency plan, in the event of a major contamination incident caused by fire (on or off the floor being abated), a large breach in the work area containment barrier, the opening of stairwell doors, breakage of the buildings exterior windows or sabotage. Such a plan will focus on how to maintain safety and order when the building is fully occupied by office employees and other building users.
- J. Abatement Contractor's Site Specific Health and Safety Plan:** Submit for approval a detailed plan addressing health and safety elements of project work, including but not limited to:
1. General health and safety.
 2. Worker training related to health and safety issues.
 3. Personnel protective measures, including respiratory protective equipment, protective clothing, head, eye, hand, foot protection, and fall protection.

4. Procedures for working around wall spaces and other ceiling openings.
 5. Procedures for demarcating and guarding wall space and other ceiling openings.
 6. Procedures for lockout/tagout of electrical and mechanical systems.
 7. Electrical safety issues.
 8. Air monitoring strategy to evaluate Abatement Contractors employees personal exposures to asbestos and, as applicable ,and any other chemical materials that are used.
 9. Fire prevention and protection plan.
 10. Procedures for dealing with heat stress.
 11. Emergency procedures (including, but not ,limited to medical, fire, toxic atmospheres, electrical hazards, evacuation, cleanup of unintended release, power outages).
 12. Firewatch Plan including any sketches necessary to clearly describe the plan.
 13. Schedule for regular meeting to discuss safety/health issues.
- K. Equipment Certification:** Submittals to include manufacturers' certification that vacuums, negative air pressure equipment filters, and other local exhaust ventilation equipment conform to ANSI Z9.2-1979.
- L. Rental Equipment:** When rental equipment is to be used in removal areas or to transport waste materials, a copy of the written notification provided to the rental company informing them of the nature of use of the rented equipment shall be signed by the rental company and submitted to the observation service.
- M. Notifications:** The Abatement Contractor shall be fully responsible for notifications of federal state, and local authorities, and for obtaining necessary permits in accordance with applicable regulations including, but not limited to the following:
- Notifying the Monterey Bay Unified Air Pollution Control District in writing at least 10 working days prior to commencement of regulated asbestos related activities.
 - Notifying the nearest Cal/OSHA office at least 24 hours prior to any asbestos related work.
 - Notifying the City of Salinas fire department (courtesy notice)
 - Obtaining any city permits required for asbestos abatement or construction activities
- All notifications shall contain as a minimum the following information:
1. Name, address and telephone number of the Owner including the contact person.
 2. Name, address, EPA numbers, license number and telephone number of the Abatement Contractor including the contact person.

3. Name, address and description of the building, including size, age, and prior use of building.
4. The type and quantity of friable asbestos material involved and the description of the work.
5. Scheduled starting and completion dates.
6. Procedures that shall be employed to comply with the regulations.
7. The name, address, EPA number and telephone number of the transporter.
8. The name and address of the hazardous waste disposal facility where the asbestos waste shall be deposited.

Copies of all government agency correspondence and proof of delivery shall be delivered to the observation service. No work shall commence until verification of required notifications is made by the observation service.

- N. Licenses:** Provide proof of Abatement Contractor's license and asbestos certification from the Abatement Contractor licensing board, and proof of registration with the Division of Occupational Safety and Health in accordance with California Labor Code, Section 6501.
- O. Scaffolding:** Submit to the observation service prior to abatement work, certification from a licensed civil or structural engineer that the scaffolding design and installation is safe and adequate for the purpose for which it will be used. Submit a copy of the scaffolding permit when required by local regulatory agencies.
- P. First-Aid Supplies:** Provide a list, in the form of a checklist, of the contents of the first-aid kit.
- Q. Fire Extinguishers:** Provide product data, and submit a schedule indicating the locations of the extinguishers at the job site.

1.5 ADMINISTRATION OF THE CONTRACT

All Work is to be performed under the observation of the observation service and Owner's representative, who shall be free to enter and review all Work (see Abatement Observation Services).

1.6 SAFETY

Submittals to include written procedures for evacuation of injured workers. Aid for seriously injured workers shall not be delayed in order to comply with standard decontamination procedures. It is the responsibility of the Abatement Contractor to decide if the seriousness of the injury warrants noncompliance with the standard decontamination procedures.

PART 2 - WORKER PROTECTION

2.1 TRAINING PROGRAM

- A. Each employee shall receive training in the proper handling of materials that contain asbestos, including all aspects of work procedures and protective measures, use of protective clothing and respiratory protection, use of showers, entry and exit procedures from work areas and in OSHA regulations. Each employee shall also understand the health implications and risks involved, including the illness possible from exposure to airborne asbestos fibers and the increased risk of lung cancer associated with smoking cigarettes and asbestos exposure, understand the use and limits of the respiratory equipment to be used, and understand the purpose of medical surveillance and the monitoring of airborne quantities of asbestos as related to health and respiratory equipment. The training program shall comply with federal, state or local regulatory requirements.
- B. Emergency evacuation procedures to be followed in the event of worker injury or compressor failure, shall be included in worker training program.

2.2 DRESS AND EQUIPMENT

- A. Work clothes shall consist of disposable full-body coveralls, head covers, boots, rubber gloves, sneakers or equivalent. Sleeves at wrists and cuffs at ankles shall be secured.
- B. Eye protection and hard hats shall be available as appropriate or as required by applicable safety regulations.
- C. Provide authorized visitors with suitable respiratory protection, protective clothing, headgear, eye protection, and footwear whenever they are required to enter the work area.

2.3 RESPIRATORS

- A. Respiratory protective equipment shall be selected in accordance with (1) the ANSI standard for respiratory protection (Z288-2-19920 and the requirements of Title 8 CCR, 1529, 5144, and Title 29 CFR 1926.1101, and 1910-134. Respiratory instructions shall be posted in the clean room.
- B. Use full face powered air purifying respirator (PAPR) for the abatement of ACM until the Abatement Contractor can establish the average airborne concentrations of asbestos fibers the employees are exposed to are at or below 0.01 f/cc. Determine both the 30 minute excursion limit and the 8-hour TWA concentration of asbestos fibers to which employees will be exposed in each work area. The contractor may use half-faced mask or full faced air purifying respirators if they can provide an applicable negative exposure assessment (NEA).
- C. Half-mask or full-face air-purifying respirators with high efficiency P100 filter cartridges may be worn during the preparation of the work area, performance of repair work, use of glovebags and decontamination work, provided work area fiber concentrations are at or below 0.1 fibers/cc.
- D. The Abatement Contractor shall provide workers with approved, permanently personally-issued and marked respirators with changeable P100 filters. The Abatement Contractor shall provide a sufficient quantity of filters approved for asbestos so that workers can

change filters during the workday. Filters shall not be used any longer than one workday or whenever an increase in breathing resistance is detected. The respirator filters shall be stored at the job site in the clean room and shall be totally protected from exposure to asbestos before their use.

- E. Workers shall always wear a respirator, properly fitted on the face, in the work area, from the initiation of preparation work until all areas have been given written clearance by the observation service.

2.4 WORKER PROTECTION PROCEDURES - TO BE POSTED IN CLEAN ROOM

Bilingual (English and other appropriate language[s]) worker protection procedures must be posted in the clean room. If the first language of all workers is English, the bilingual procedures are excepted.

- A. Each worker and authorized visitor shall prior to entering the regulated work area: put on a respirator and clean protective clothing. No person shall enter the work areas unless he or she has received the minimum asbestos awareness and respirator training as outlined in the Cal/OSHA and OSHA asbestos standards. Each person must submit a copy of medical examination documentation.
- B. All Workers shall, each time they leave the work area: remove gross contamination from clothing;.
- C. Before reentering the work area, each worker and authorized visitor shall put on a clean respirator and shall dress in clean protective clothing.
- D. Contaminated protective clothing and work footwear shall be stored in an equipment room when not in use in the work area. At appropriate times or upon completion of asbestos abatement, dispose of protective clothing and footwear as contaminated waste, or launder in accordance with government regulations.
- E. Workers removing waste containers from the work areas shall wear a respirator and be dressed in clean disposable coveralls.
- F. Workers shall not eat, drink, smoke, or chew gum or tobacco while in the work area.
- G. Workers and authorized visitors with beards or who are unshaven shall not enter the work area.

2.5 MEDICAL EXAMINATIONS AND HISTORIES

Before exposure to airborne asbestos, the Abatement Contractor will provide each employee providing labor or professional services at the Project site with a current comprehensive medical exam, including a history of respiratory and gastrointestinal diseases, meeting the general definition outlined in 29 CFR 1910.1001, 29 CFR 1910.134, 29 CFR 1926.1101 and Title 8 of CCR 1529. Abatement Contractor shall submit a current medical examination report. The medical report shall contain a statement from the examining physician that the employee can (or cannot) function normally wearing a respirator or that the safety or health of the employee or other employees will or will not be impaired by his use of a respirator. No employee will be allowed to enter the work area without having first provided a copy of their Medical Examination, to the observation service and until the medical has been approved.

2.6 EMPLOYEE IDENTIFICATION

The Abatement Contractor shall furnish an employee roster to the observation service for each work shift. Each employee entering the work area shall have in his possession at least two forms of identification, one of which has his/her photograph.

PART 3 - PRODUCTS

3.1 GENERAL

- A. The Abatement Contractor shall furnish, provide, and utilize the following products in the work areas as specified.
- B. See Product Handling in of these specifications.

3.2 PROTECTIVE COVERING (POLYETHYLENE)

Two layers of 6-mil fire retardant polyethylene sheeting in sizes to minimize the frequency of joints where deemed necessary.

3.3 TAPE

Duct tape 2" or wider, or equal, and capable of sealing joints of adjacent sheets of polyethylene, and for attachment polyethylene sheeting to finished or unfinished surfaces of dissimilar materials, and capable of adhering under both dry and wet conditions, including use of amended water.

3.4 PROTECTIVE PACKAGING

- A. Appropriately labeled clear, double 6-mil minimum sealable polyethylene bags.
- B. Appropriately labeled, sealable, impermeable drum containers.
- C. Bilingual labels (English and other appropriate language[s]) on containment glovebags, waste packages, contaminated material packages and other containers shall be in accordance with EPA or OSHA standards.

3.5 WARNING LABELS AND SIGNS

As required by 29 CFR 1910.1001, 29 CFR 1910.1200, 29 CFR 1926.1101 and other pertinent state and local regulations, whichever is the most stringent.

3.6 SURFACTANT

Surfactant, or wetting agent, for amending water will be 50 percent polyoxyethylene polyglycol ester and 50 percent polyoxyethylene ether, or equivalent, at a concentration of one (1) ounce per five (5) gallons of water, or as specified by the manufacturer.

3.7 ENCAPSULATING SEALER – (NOT APPLICABLE)

- A. Shall be a penetrating or bridging type, pollution-free, nontoxic, with a Class A fire classification as specified herein. Encapsulants with the ingredient methylene chloride are not acceptable unless the Abatement Contractor can prove to the observation service's satisfaction that equal substitute materials are not available. If substitutes are not used, the Abatement Contractor shall submit with the asbestos plan, for the

observation service's approval, respiratory protection and negative air discharge procedures to protect workers, authorized personnel and the public from methylene chloride exposure. Material shall be flexible when cured, resistant to weathering, oxidation, aging and abuse.

- B. Shall be a water-dispensed coating, insoluble in water when cured.
- C. Shall be used undiluted.
- D. Shall have a written certification from the manufacturer that the encapsulant is compatible with the replacement material and will safely withstand temperatures of all surfaces on which the encapsulation will be applied. The abatement contractor and Owner shall make sure the encapsulant shall be compatible with the existing substrate and replacement materials.
- E. The observation service may at any time take random samples of encapsulant from open containers or spray equipment for testing to insure product quality and compliance with the specifications.
- F. Encapsulant found not to be in conformance with requirements of these specifications shall be removed from the site immediately. All areas where the defective encapsulant has been applied shall be re-sprayed with approved encapsulant or remedied in a manner, including the possibility of removal and replacement of the subject ACM, acceptable to Owner. Re-encapsulation expense shall be borne by the Abatement Contractor.
- G. Encapsulant to be applied to structural members before reapplication of spray-applied or trowel-applied fireproofing must be a component of the fireproofing system when it was tested and rated by the Underwriters Laboratory (UL), ASTM, Factory Mutual (FM) or other building code approved testing agencies.

3.8 LAGGING ADHESIVE– *(NOT APPLICABLE)*

Shall meet NFPA 90A Code, such as Arabol, Childers CP52, Insul-Coustic 102, or approved equal.

3.9 GLOVEBAGS– *(NOT APPLICABLE)*

The glovebag (typically constructed of six-mil transparent regulated polyethylene) has two (2) inward-projecting longsleeve rubber gloves, and an internal tool pouch.

3.10 TOOLS AND EQUIPMENT

- A. Provide suitable tools for asbestos removal and encapsulation.
- B. **Negative air pressure equipment:** HEPA filtration systems shall have filtration equipment in compliance with ANSI Z9.2-1979, local exhaust ventilation. No air movement system or air filtering equipment shall discharge unfiltered air outside the work area. *(Not applicable)*
- C. **Manometer: *(Not applicable)***
 - 1. Shall have a built-in alarm and continuous hard copy readout.
 - 2. Shall have current calibration certificate

D. HEPA Vacuums:

1. Shall comply with ANSI Z9.2-1979.

E. Vacuum Loaders: (*Not applicable*)

1. Shall have HEPA filtration system in compliance with ANSI Z9.2-1979.
2. Meets or exceeds OSHA and EPA safety regulations.
3. Fully-enclosed negative pressure system.

F. Scaffolding:

1. Provide all scaffolding, ladders and staging, etc. as necessary to accomplish the work of this contract. The type, erection and use of all scaffolding shall comply with all applicable OSHA provisions. No workers are to remain on rolling scaffolding as it is being moved.
2. Equip rungs of all metal ladders, etc. with an abrasive non-slip surface.
3. Provide a nonskid surface on all scaffold surfaces subject to foot traffic.
4. Design scaffolding to take into account all applicable local, state and federal construction standards.

3.11 LUMBER

Shall be flame retardant and carrying markings certifying such properties.

3.12 SOLVENTS

- A.** Shall be non-toxic, non-carcinogenic, nonflammable (flash-point in excess of 200° F.), nonreactive with or damaging to materials it will come in contact with and approved for indoor use by regulatory agencies. Provide ventilation of work area as required by manufacturer. Vent exhaust to the exterior of the building and in a manner that will not result in adverse affects to other areas of the facility, adjacent facilities or public areas. Solvents shall not be used in areas which food stuffs are stored.
- B.** If a chemical mastic remover is used to remove flooring mastic, the mastic remover shall be a "low odor" type. Removers with methylene chloride or with a petroleum distillate or glycol ether base are prohibited. MSDS's shall be submitted for mastic removal products.

PART 4 - EXECUTION

4.1 WORK AREA PREPARATION

- A.** Preparation procedures for removal of all ACM in the work area:
1. Removal of the ACM, unless specified otherwise, shall be executed in a regulated work area.
 2. The Abatement Contractor shall isolate the work area for the duration of the project, completely sealing all openings including, but not limited to, HVAC ducts, diffusers and grilles, skylights, doorways, and windows, with 6-mil polyethylene taped securely to a clean surface.

Attic spaces are to be inspected and sealed is necessary.

3. HVAC systems shall be shut down. The Abatement Contractor shall design his work area preparation and engineering controls as specified and/or as required to prevent damage to and contamination of the affected HVAC system.
4. The Abatement Contractor shall remove all movable objects from the work areas that are vulnerable to damage or contamination, or that will impede or prevent the completion of the work. All movable objects removed from the work area shall be clean before being moved to the designated storage area.
5. Clean and cover fixed and movable objects that can remain in the work area with 6-mil polyethylene sheeting taped securely in place. Special precautions shall be taken to protect fixed objects vulnerable to damage or contamination.
6. All fixed and movable objects requiring cleaning shall be washed with amended water or cleaned with a HEPA filtered vacuum.
7. Seal all wall, plumbing, duct and other cavities to prevent asbestos materials from falling into such cavities during the work.
8. The Abatement Contractor shall check regularly (at beginning, middle and end of each shift as a minimum) all polyethylene isolation and containment (protective) barriers for punctures, loose seals, contact with heat-generating devices, etc. Problem areas shall be repaired or mended immediately.
9. Maintain existing emergency exits from the building. Maintain a minimum of two exits from work areas where possible. Establish alternative exits satisfactory to fire officials where existing building or work area emergency exits are unavoidably blocked by activities of this project.
10. Provide and maintain appropriate fire extinguisher inside and outside the work area. One 30-pound type "ABC" fire extinguisher is required for each 2,000 square feet of floor area.
11. The Abatement Contractor shall take all precautions necessary, including inspections and testing, to insure the safety of his employees and other building occupants from electrical hazards during the course of the Project. Existing fire, smoke detection and other life safety systems shall be kept in operation at all times, or, the Abatement Contractor shall install and maintain a temporary system or alternate acceptable to Owner and fire officials.
12. Notify the observation service 24 hours in advance of when preparatory steps will be completed. Asbestos abatement work shall not commence until all preparation requirements have been completed; all tools, equipment, and materials are on hand; all required submittals, notices and permits have been approved, and until the Observation Service authorizes in writing that work may commence.

4.2 DECONTAMINATION ENCLOSURE SYSTEMS

- A. Decontamination Enclosure System for asbestos-abatement work in "Isolated" work areas:
 1. Construction of an equipment decontamination enclosure system is optional.

- a. A washroom with an air lock to a designated staging area of the work area and a curtained doorway to the holding room.
- b. A holding room with a curtained doorway to the washroom and a doorway to an uncontaminated area.

4.3 ASBESTOS REMOVAL

- A.** Before removal, asbestos materials shall be sprayed with amended water. The asbestos materials shall be sufficiently saturated without causing excessive dripping and to prevent emission of airborne fibers. Spray materials repeatedly during the work process to maintain a wet condition. If the materials are not easily saturated, then the work area shall be constantly misted to keep fiber emission minimal.
- B.** Asbestos material shall be removed in manageable sections by a multi-person team, some of whom are wetting and the remainder removing and cleaning. Any material which falls to the floor shall be wetted and picked up immediately. Material shall not be allowed to dry out. Material drop shall not exceed 15 feet. For heights up to 50 feet, provide inclined chutes or scaffolding to intercept drop. For heights exceeding 50 feet, provide enclosed dust-proof chutes. Before a second area can be started, removed material shall be packed into approved and labeled packaging while it is still wet. The outside of all containers shall be clean before leaving the work area. Move containers to the washroom (shower room when equipment decontamination system is not required), wet-clean each container thoroughly, and move to holding area pending removal to uncontaminated areas.
- C.** Asbestos material applied to concrete, steel decks, beams, columns, pipes, tanks, and other nonporous surfaces shall be wet-cleaned to a degree that no traces of debris or residue are visible.
- D.** Asbestos material debris on surfaces within accessible ceiling cavities and other accessible areas shall be removed in the same manner and cleaned to the degree as specified above.
- E.** The work area shall be kept orderly, clean and clear of work materials, polyethylene sheeting, tape, cleaning material, and clothing, and all other disposable material or items used. Prior to exiting the contained work area for breaks or at the shifts end, all debris shall be cleaned up and properly bagged.
- F.** Protective packages and drums containing asbestos materials shall be cleaned and stored in the isolated holding area until that time when the materials are to be loaded and transported to the hazardous waste disposal facility. The packages and drums shall be stored in piles no higher than four feet, and in a manner that will not result in damage to the packages or drums. Transport bags in covered drums or carts from the holding area to the transport.
- G.** Equipment removal procedures: Clean surfaces of contaminated equipment thoroughly by wet or wiping before moving such items into the washroom (shower room when equipment decontamination system is not required) for final cleaning and removal to uncontaminated areas. Ensure that personnel do not leave work area through the equipment decontamination enclosure.

- H. Do not bag water used during abatement activities. Properly filter and drain water into building sanitary drain unless prohibited by local regulations. Filter shall have a maximum pore size of 1.0 micron.

4.4 DECONTAMINATION OF WORK AREA

- A. Decontaminated procedures for contained work areas, excluding ACM encapsulation work:
 1. Remove all visible accumulations of asbestos material and debris. Wet-clean all surfaces within the work area to remove asbestos residue.
 2. After cleaning, the Abatement Contractor shall perform a complete visual inspection of the work area to ensure that the work area is free of any visible debris or residue.
 3. Upon completion of his visual inspection, the Abatement Contractor shall notify the observation service in advance that the work area is ready for initial review.
 4. Upon proper notification, the observation service will review the work area for general conformance with the specifications. Any nonconformance of the work shall be remedied by the Abatement Contractor until the work area is in compliance, and at the Abatement Contractor's expense.
 5. Upon completion of the encapsulation work, the Abatement Contractor shall notify the observation service that the work area is ready for encapsulation review.
 6. Any nonconformance of the work shall be remedied by the Abatement Contractor until the work is in compliance and at the Abatement Contractor's expense.
 7. Sealed drums and bags, and all equipment used in the work area, shall be included in the cleanup and shall be removed from the work area at the appropriate time in the cleaning sequence.
 8. Upon written notification from the observation service that the work area has passed the criteria for visual clearance, the Abatement Contractor shall apply, when included in the contract, the asbestos-free replacement materials and re-establish objects and systems as specified in these specifications.
 9. Upon notification, the observation service and Owner's representative will review the work area. Improper application of replacement materials, unapproved damage to the facility or its contents, or improper re-establishment of objects and systems discovered during the pre-final review shall be itemized on a punch list for correction by the Abatement Contractor at his expense. If no deficiencies are discovered the specifications or this portion of the specifications shall be approved in writing by the observation service and Owner's representative as complete. If deficiencies are noted, continue with the subsequent procedures. If deficiencies noted do not prevent the school from occupancy or proceeding with reconstruction work, the contract, or this portion of the contract, shall be specified in writing by the observation service and Owner's representative as substantially complete.

10. Upon correction of punch list deficiencies the Abatement Contractor shall notify the observation service and Owner's representative in advance that the work area is ready for final review.
11. Upon notification the observation service and Owner's representative will review the corrected punch list deficiencies. If all deficiencies have been corrected, the contract, or this portion of the contract, shall be approved in writing by the observation service and Owner as complete. If deficiencies have not been properly corrected the Abatement Contractor shall repeat, at his expense, procedures above until all deficiencies have been corrected and approved. If deficiencies noted do not prevent Owner from occupancy or proceeding with reconstruction work, the specifications or this portion of the specifications shall be specified in writing by the observation service and Owner's representative substantially complete.

4.5 ASBESTOS DISPOSAL

A. Asbestos-Containing Waste Materials shall be packed into approved sealed and labeled protective packaging. The Abatement Contractor shall affix to each individual container of asbestos waste the following:

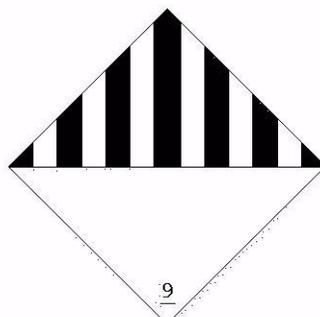
1. The warning label specified in the Cal/OSHA asbestos regulation Title 8 CCR section 1529 (n) (3):

<p>DANGER Contains asbestos Fibers Avoid Creating Dust CANCER AND LUNG DISEASE HAZARD</p>

2. The hazardous waste label specified in Title 49 CFR Part 172.304 as amended November 1, 1983, in accordance with DOSH regulation Title 22 CCR Section 66262.32 if the material is disposed of as hazardous:

<p>HAZARDOUS WASTE - State and Federal Law Prohibit Improper Disposal. If found, contact the nearest police or public safety authority or the California Department of Toxic Substance Control.</p> <p>Generators Name: _____</p> <p>Address: _____</p> <p>Manifest Document Number: _____</p>
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3. In Addition to the above labeling, the Abatement Contractor shall affix the Department of Transportation (DOT) diamond label for friable asbestos waste only to each individual container:



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- B. Containers removed from the holding area must be removed by workers wearing appropriate protective clothing, respirators with P100 filter cartridges shall clean the outside, properly labeled containers (bags drums, or wrapped components) using HEPA filter -equipped vacuum's and or wet cleaning techniques, and transport them into the waste container area .
- C. Containers of asbestos-containing wastes can be transported through the vacant building if needed.
- D. Vehicles and/or containers used for storing and/or transporting ACM to disposal sites shall have a completely enclosed, lockable storage compartment. Storage compartments shall be plasticized and sealed with a minimum of one layer of 6-mil polyethylene on the sides and top and two layers of 6-mil polyethylene on the floor. The compartments shall be thoroughly wet cleaned and/or HEPA vacuumed following the disposal of each load of material at the dump site. At the conclusion of the project (or before transport vehicles are used for other purposes), the polyethylene shall be properly removed and disposed of as contaminated waste. After this is accomplished, compartments shall once again be wet cleaned and/or HEPA vacuumed in order to eliminate all debris prior to reuse of vehicles. All plastic sheeting, tape, cleaning material, including mops and sponges, clothing, filters, and all other contaminated disposable materials shall be packaged, labeled, and disposed of as asbestos-containing waste.
- E. The Abatement Contractor shall deliver asbestos-containing waste materials to the pre-designated disposal facility in accordance with the guidelines of the EPA.
- F. The Abatement Contractor shall notify the observation service 24 hours, in advance, when asbestos-containing waste materials are to be removed from the site. The observation service must be present during the removal of asbestos-containing waste materials from the work area. A copy of the Uniform Hazardous Waste Manifest, or other document required by State or Local agencies, shall be submitted to the observation service for review and prior to transporting asbestos-containing waste materials to the disposal facility. **Owner shall sign the manifests.**
- G. At the conclusion of work, the Abatement Contractor shall provide evidence (such as a "Bill of Lading" or "Uniform Hazardous Waste Manifest") that the asbestos-containing waste material was properly disposed of. The evidence shall be submitted with the final request for payment. The Abatement Contractor shall indicate on the "Bill of Lading" or "Hazardous Waste Manifest" the weight of the asbestos-containing waste material generated from the project. This weight amount must be confirmed by a party independent from the Abatement Contractor.

- H. The Abatement Contractor shall be responsible for the safe handling and transportation of all waste, generated by the project, to the designated waste disposal facility. The Abatement Contractor shall bear all costs for all claims, damages, losses, and clean up expenses against Owner or the observation service, including but not limited to attorney's fees rising out of, or resulting from, asbestos spills on the site or spills en route to the disposal facility.
- I. Nonfriable Debris Disposal: Nonfriable ACM will not be required to be disposed of as hazardous waste, unless they are made friable during demolition. Friability will be determined by the observation service or a representative of a regulatory agency.

4.6 AIR MONITORING AND TESTING

A. Area Air Monitoring:

1. Throughout removal, encapsulation, and cleaning operations, area air monitoring shall be conducted by the observation service to ensure that the Abatement Contractor's engineering controls and work practices are minimizing worker and public exposures to airborne asbestos fibers. Fiber counting shall be phase contrast microscopy (PCM) performed in accordance with the National Institute of Occupational Safety and Health (NIOSH) Method 7400 "A" counting rules.
2. The observation service shall report the area air monitoring results to the Abatement Contractor and Owner within 72 hours. If results are unsatisfactory, the Abatement Contractor shall make changes in his engineering controls and work practices to assure compliance with these specifications. Unsatisfactory results are fiber counts within the work area in excess of the 0.1 f/cc or fiber counts outside the work area in excess of 0.01 f/cc.

B. Personal Air Monitoring:

1. Initial and periodic 8-hour TWA and 30 minute excursion limit air monitoring of worker exposures to airborne concentrations of asbestos fibers shall be conducted **by the Abatement Contractor** in accordance with Cal/OSHA requirements.
2. Once OSHA sampling requirements are satisfied the Abatement Contractor shall conduct, as a requirement of this contract, not less than one personal air sample, twice per calendar week, to determine 8-hour TWA exposures and 30 minute excursion limit exposures of workers operating in each work area. Specifications required personal sampling is not necessary while the Abatement Contractor is conducting OSHA required sampling or when Type C Respirators are in use.
3. The Abatement Contractor shall report personal monitoring results to the observation service within 48 hours from the end of the work shift. Worker exposures to airborne asbestos concentrations shall not exceed the Permissible Exposure Limit (PEL) of 0.1 f/cc expressed in an 8 hour TWA or the 1 f/cc 30 minute period excursion limit.

C. Clearance Testing:

1. The Abatement Contractor shall not be released until visual clearance is performed.

2. If the visual inspection shows the work area has not been decontaminated, the Abatement Contractor shall repeat the cleaning and/or encapsulation application until the work area is in compliance.

4.7 REIMBURSEMENT OF COSTS OF THE OWNER OR THE OBSERVATION SERVICE

In the event that reviews and/or clearance testing by the observation service or regulatory agencies shows that the work area or any portion of the work area is not decontaminated or if the work is not in conformance with the specifications, Owner and the observation service will record all time, tests and project related expenses expended to monitor the work until the work is in compliance. All time, and expenses recorded by Owner and the observation service to monitor the above work, outside the project work days, work hours or specifications time shall, at the discretion of Owner, be paid for by the Abatement Contractor. The Abatement Contractor, promptly upon receipt of the billing from Owner or the observation service, shall reimburse Owner at the normal billing rate of Owner or the observation service, or Owner is authorized to withhold funds from the specification sum.

4.8 STOPPING THE WORK

See Abatement Observation Services Section.

4.9 CLEANUP

Abatement Contractor shall maintain a clean project site during and upon completion of the project. Cleaning shall be in accordance with the general conditions.

END OF SECTION

LEAD-CONTAINING PAINT REMOVAL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS AND SECTIONS

- A. The Conditions of the Contract and Division 1, General Requirements shall be part of this Section.
- B. Examine architectural drawings and all other Sections of the Specifications for requirements of related sections affecting the work of this Section.
- C. The work of this section shall be performed as stated herein. In performing the work of this section, the Contractors shall refer to other Divisions for additional procedures. The Contractor is responsible for the coordination of the work of this section with related work.

1.2 GENERAL REQUIREMENTS

A. Definitions:

Abatement - the reduction, or removal of lead based paint from surfaces and sources that promote exposure resulting in the possibility of lead toxicity or poisoning.

Action Level - The point at which response actions are required to correct or eliminate the presence of lead. In physical health, action level would be indicated by a 25 µg/dl or greater concentration of lead in whole blood. In regards to lead in paint, action level would be indicated by the presence of 1.0 mg/cm² of lead or 5,000 parts per million (PPM). In air, the action level is $\geq 30 \mu\text{g} / \text{m}^3$.

Air Monitoring - Collection of air samples for documentation of lead aerosol concentrations within and outside the lead paint control area. Samples are representative of the airborne concentrations of lead dust, which may reach the worker's breathing zone.

Amended Water: Water containing a wetting agent or surfactant.

Approved Respirators - NIOSH recommends a half-mask air purifying respirator equipped with high efficiency filters for low airborne concentration of lead (not in excess of 0.5 mg/m³ 8 hr TWA) and full face-piece, self-contained breathing apparatus as operated in positive-pressure demand mode for greater than 100 mg/m³ of airborne concentration of lead.

Applicable Surface - all intact and non-intact interior and exterior painted surfaces of a residential structure.

Barrier - Polyethylene sheeting that completely seals off the work area to prevent the migration of lead particulates to the surrounding area.

Blood Lead Level - the amount of lead absorbed in the blood stream.

Blood Lead Level Testing - must include: Hemoglobin & Hematocrit, Red Cell Indices, Peripheral Smear Morphology, Urea Nitrogen, Serum Creatinine, Zinc Protoporphyrin, Microscopic Urinalysis

Blood Lead Testing - Testing done by laboratories in which results indicate the amount of lead absorbed in the blood.

Blood Lead Level Units - OSHA - $\mu\text{g}/100\text{g}$ - most labs use $\mu\text{g}/\text{dl}$ blood (micrograms/deciliter of blood) scientific literature - $\mu\text{mol}/\text{L}$ (micromoles/liter)

Blood Lead Level Unit Conversions - $\mu\text{g}/100\text{g}$ roughly equals $\mu\text{g}/\text{dl}$ (density correction factor is 1.056) To convert $\mu\text{g}/\text{dl}$ to $\mu\text{mol}/\text{L}$, use the gram molecular weight of lead (207 g/mole, or 207 $\mu\text{g}/\mu\text{mole}$).

Caustic - Capable of corrosion by chemical action.

Center for Disease Control (CDC) allowable blood lead level in children is 25 $\mu\text{g}/\text{dl}$, and may be reduced to 10 or 15 $\mu\text{g}/\text{dl}$.

Clean-up - Area where lead paint abatement is being done and cleaned daily of large paint chips and any obvious dust. These materials should be bagged and disposed of in a manner not accessible. Work clothes should not be worn from the general area that is being abated since lead dust contaminates other areas.

Clean Room: Uncontaminated change room directly adjacent to the work area having facilities for storage of employees' personal clothing and uncontaminated work clothes, materials and equipment provided when airborne exposure to lead is above the PEL.

Component Removal: Abatement process utilized to completely remove a component identified as containing hazardous materials; also included in the abatement process is pre- and post-cleaning.

Critical Barrier - A layer of 6 mil Polyethylene sheeting preventing access to surrounding clean areas during abatement activities.

Deleading Contractor - Lead Paint Abatement Contractor (to be determined).

Defective Lead-Based Paint Surface - Painted surfaces having a lead content of greater than or equal to 1.0 mg/cm^2 , that are cracking, chipping, peeling or loose.

Deleading - The act of reducing or removing lead from a surface.

Deteriorated Condition - Condition of surfaces such as walls, windows, baseboards, etc. that are in need of repair or replacement due to breakdown of wood, paint or other materials.

Dip-tank - a method of removing paint where the entire product is removed and dipped into a tank containing a chemical stripper. The dipping method must be followed by a neutralizing wash down.

Disposal - Lead containing paint debris must be disposed of in accordance with applicable local, state or federal requirements.

Dry Scraping - a method of removing paint by scraping or sanding with no measures to control fine particles or dust. This method is not recommended as it potentially produces the greatest exposure hazards to workers and/or residents.

Encapsulate - a material that surrounds or embeds lead-based paint in an adhesive matrix to prevent migration of lead and exposures consequent to that migration.

Environmental Survey - Systematic checking of a home or other building for the presence of lead-based paint. This may be done by use of an XRF analyzer or through chemical analysis of paint samples.

EPA - Environmental Protection Agency

Exposures above the action level require: 1) Exposure monitoring 2) Medical surveillance 3) Training and education

Exposure Monitoring - is the exposure, which would occur whether or not a respirator is used.

Exposure Monitoring Techniques 1) Full shift Sampling and analytical error allowed is + or - 20% at 95% confidence level. 2) Use lab accredited by the American Industrial Hygiene Association. 3) Employees will be copied on all results. 4) If exposures above PEL, employer must provide a written statement that overexposure has occurred and how it will be corrected.

Final Clean-Up - the thorough cleaning that should be done following the completion of an abatement process. Particular attention should be paid to cleaning up any dust produced during the abatement. High phosphate detergents should be used for cleaning in addition to a HEPA vacuum.

Fixed Object - a unit of equipment or furniture, which cannot be removed from the work area(s) without demolition of other components.

Heat Gun - an apparatus that emits hot air at temperatures in excess of 100 degrees F.

HEPA Filter Equipment: High efficiency particulate air (HEPA) filtered vacuuming or exhaust ventilation equipment with a UL 586 filter system. Filters shall be of 99.97 percent efficiency for retaining 0.3 micrometer diameter particles.

HEPA Vacuum - Vacuum equipped with a HEPA filter that is able to filter particulates of 0.3 microns or greater.

High Phosphate Detergent - Detergents high in phosphate are recommended for cleaning during and after abatements since lead particulates tend to bond to these detergents.

Lead Action Level: Concentration of lead above 30 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) as a time-weighted average (TWA) over any 8-hour work shift.

Lead-Based Paint - A paint identified as having a lead content greater than or equal to 1.0 mg/cm^2 , as documented by XRF testing and/or as defined by any other regulations.

Lead-Containing Paint (LCP) - A paint identified as having a lead content greater than laboratory detection levels or as defined by any other regulations.

Lead Exposure - Being subjected to the presence of lead in situations that could present the opportunity for ingestion or inhalation. Some possible exposure sources are lead-based paint chips, lead-based paint dust, lead in water from pipe solder and fumes and/or dusts produced during paint removal by means of sandblasting or open flame burning.

Lead Paint Hazard - The presence of lead-based paint in places and conditions that would pose a potential danger to people if ingested or inhaled.

Lead Poisoning - The condition of becoming ill due to absorption of lead in the blood. In early stages most people are asymptomatic. However, some indicators of lead poisoning, particularly in children, are loss of interest in play, excessive sleeping, loss of recently acquired skills, lack of energy and headaches.

Local Exhaust Ventilation System: Pressure differential system utilizing HEPA filtration capable of maintaining a lower air pressure inside of the work area and a constant air flow from adjacent areas into the work area and exhausting that air outside the work area.

Micron - One Millionth of a Meter (1 Meter = 39.37 inches)

mg/m³ - Milligrams per cubic meter

µg/m³ - Micrograms per cubic meter

Occupied Area: Any area adjacent to the work area, which is occupied or potentially accessible by unprotected employees, workers, or the public during any time abatement activities are performed.

Organic Solvents - Carbon compound-based solutions.

OSHA - Occupational Safety and Health Administration

OSHA Construction Lead Standard (29 CFR 1926.62) - Applies to all construction. Lead based paint abatement is technically construction, so the OSHA standard should guide all lead-based paint abatement projects.

OSHA PEL - (Permissible Exposure Limit) for general industry is 50 µg /m³. HUD guidelines also use this PEL.

OSHA Action Level - 30 µg /m³ TWA.

OSHA Allowable Blood Lead Level - 40 µg/100g of whole blood; if above 50, the worker must be removed from exposure at no loss in pay or benefits.

Paint Failure - the breakdown of paint due to abrasion and/or exposure to elements that results in chipping, peeling, flaking, blistering, and/or chalking.

Paint Residue - Dry or chemically softened paint that remains on a surface after the initial paint removal.

Paint Scrapings - the waste material produced during an abatement process consisting of paint removed by scraping.

Permissible Exposure Limit-Lead (PEL): 50 µg/m³ of air, based upon an 8-hour time-weighted average.

Primary Prevention - Preventing the possibility of lead toxicity or poisoning by removing accessible lead-based paint and paint residue prior to a person becoming ill.

Prior Experience: Experience required of Deleading Contractor and its employees and sub-Deleading Contractors on abatement projects of similar magnitude and scope to ensure capability of performing the abatement in a satisfactory manner. Similarities shall be in areas related to material composition, project size, number of employees and engineering work practices and personal protection controls required.

Removal - the act of removing contaminated materials from the structure to a suitable disposal site.

Sample Location: Area or place where a sample is taken.

Secondary Sources - Sources of lead exposure other than the obvious ones related to lead-based paint. Secondary sources can include some ink used in newsprint, some glazes used in ceramics, bullets and battery casings.

Signs where PEL is exceeded:

WARNING
Lead Work Area
Poison
No Smoking or Eating

Substandard Dwelling - A dwelling or residence which does not meet minimum local housing codes or is unsafe for habitation because of fire, safety, or health code violations.

Supplemental Ventilation - Use of a fan during the abatement process to provide additional ventilation. An exhaust fan is preferable.

Time-Weighted Average (TWA): - Time Weighted Average - The average concentration of a contaminant in air during a specific time period, usually an 8-hour work shift.

Volatile Materials - those materials, particularly solvents, that vaporize readily at a relatively low temperature.

Wet Scraping - a method of removing paint in which the painted surface is dampened with water or a chemical in order to reduce the amount of dust and fine particles produced in the removal process.

Wet Cleaning: Process of eliminating contamination from surfaces, equipment and other objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as lead-contaminated wastes.

Work Area: Controlled area consisting of designated rooms, spaces or areas of the project in which abatement actions are undertaken or which may be contaminated as a result of such abatement actions. A contained work area is a work area, which has been sealed and equipped, with a decontamination area for personnel and equipment. A non-contained work area is an isolated or controlled-access work area that has no fixed containment barriers erected, such as a building exterior.

B. Qualifications of Deleading Contractor

1. The Deleading Contractor submittals shall be submitted to THE OWNER and to the Observation Service.

- a. Medical monitoring information for licensed supervisors and deleader workers including, as required OSHA 1926.62, blood lead testing results and pulmonary function tests (PFT).
- b. Current approved training certificates for lead workers.
- c. Proposed EPA-licensed hazardous waste treatment or disposal facility.
- d. Bid Submittals (Submit the Following Items):
 1. A List of projects similar in size and scope to the work of this report which have been completed by the Contractor (or by the subcontractor(s)) engaged to perform any portion of the Work of this Section. Include names and telephone numbers of references for verification of completion and quality of work.
 2. Certificate and identification number of the laboratory used for personnel blood monitoring.
 3. Listing of any citations or judgments issued by any regulatory agency or court of law.
 4. Listing of assessed penalties or liquidated damages, and project(s) in which they occurred.
 5. Written description and shop drawings, showing in detail the proposed design and materials.

C. Notifications

Provide within 10 working days, all required notifications to relevant Federal, State, and local authorities and obtain and comply with the provisions of all permits or applications required by the work specified, as well as make all required submittals required under those auspices. The costs for all permits, applications, and the like, are to be assumed by the Deleading Contractor.

D. Pre-Construction Meeting:

Meet with the Owner and the Observation Service and any major sub-trades, for a Pre-Construction meeting prior to commencing work of the project. The meeting shall be at the facility of the Owner at a mutually convenient time and date to be determined by the Owner and Deleading Contractor. At the meeting, the Deleading Contractor shall be represented by authorized representatives and the licensed deleading supervisor(s) who shall supervise the project on a daily basis, and shall present evidence that all requirements for initiation of the work have been met. The minimum agenda for the meeting shall be:

1. Project submittals,
2. Construction schedule, including sequence of critical work,
3. Scheduled values, designated by trade and specification section,
4. Designation of responsible personnel,

5. Health and safety procedures, security, quality control, housekeeping, notifications and related matters,
6. Use of premises, facilities, and utilities.

E. Pre-Construction Submittals:

At a minimum the pre-construction meeting shall be attended by designated representatives of the Owner and the Observation Service. At this meeting, the selected Contractor shall present the following Pre-Construction Submittals. Provide copies each of the following for the acceptance of the Owner and the Observation Service:

1. Copies of all notifications, permits, applications, licenses and like documents required by Federal, State, or local regulations and this specification obtained or submitted in proper fashion.
2. Copies of recent blood lead testing, pulmonary function test (PFT for respirator use, and medical records as required by OSHA 1926.62.
3. Copies of Supervisor's and workers' training certificates and licenses. The abatement supervisor shall be a California Department of Public Health (CDPH) certified lead related construction supervisor. All workers and supervisors performing deleading activities shall have successfully completed CDPH training.
4. Record of successful respirator fit testing performed by a qualified individual within the previous 6 months, for each employee to be used on this project with the employee's name and social security number with each record.
5. Employers Hazard Communication Program as required by OSHA 1926.62, including proposed respiratory protection program and medical monitoring for all employees throughout all phases of the job, including make, model and NIOSH approval numbers of respirators to be used.
6. Written description, for the Owner's review and acceptance, of all proposed procedures, methods, or equipment to be utilized that differ from the Contract Specifications, including manufacturers' specifications on any equipment not specified for use. In all instances, Deleading Contractor must comply with all applicable federal, state and local regulations.
7. Proposed electrical safeguards to be implemented, including but not limited to location of transformers, GFCI outlet and power panels necessary to safely perform the job.
8. Proposed worker orientation plan which at a minimum includes a description of lead hazards and abatement methodologies, a review of worker protection requirements.
9. A list of all equipment to be used on site, by make and model, including ventilation equipment, HEPA vacuums, etc..
10. Chain of Command of responsibility at work site including supervisors and competent person, their names, resumes and certificates of training.

11. List of total number of supervisors and workers intended to be assigned to the project.
12. The name and address of Deleading Contractor's blood lead testing lab, OSHA-CDC listing, and Certification in the State where work site is located.
13. The name and address of Deleading Contractor's personal air monitoring and waste disposal lead testing laboratory(s) including certification(s) of AIHA accreditation, listing of relevant experience in air and debris lead analysis.
14. Material Safety Data Sheets on potentially hazardous materials to be used on the project.
15. Name, address, and ID number of the proposed hazardous waste hauler, waste transfer route, and proposed disposal reclamation or treatment facility.
16. Name and address of the proposed construction debris site.
17. Proof of Insurance
18. Work schedule, identifying firm dates and completion for actual areas, including a general graphic schedule indicating Phases.
19. Definition of responsibility of work, site isolation, and security procedures
20. Description of the final clean-up procedures to be used
21. Documentation that each and every employee to be utilized on the project has had instruction on the hazards of lead exposure, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures regarding lead paint abatement
22. Written description and sketch of the security and emergency procedures plan
23. Proposed progress schedule for lead paint abatement and related repair
24. Samples of all proposed replacement materials to be installed in the Work. Include independent test reports or manufacturer's certification that materials meet or exceed performance criteria specified in the Contract Documents, installation information, MSDS sheets, and all other pertinent information.

No work of the project will be allowed to begin until the Pre-Job Submittals as listed herein are approved by the Owner and the Observation Service. Any delay caused by the Deleading Contractor's refusal to submit this documentation in a timely fashion does not constitute a claim for extra compensation or a time extension

- F. Submit the following to the observation service and the Owner at the completion of the project:
1. Copies of waste manifests and receipts acknowledging disposal of all lead waste material from the project, showing delivery date, quantity, and appropriate signature of landfill's authorized representative,

2. A copy of the daily list of workers and site entry-exit logbook,
 3. All personnel monitoring results,
 4. All TTLC, TCLP and STLC testing results collected by the observation service.
- G. At no time will the Owner permit storage of debris generated from abatement activities to be stored inside building at the site, and any storage of materials will be subject to the Owner's approval. Such approval will not be unreasonably denied. Assure security of debris at all times.
- H. Spill Contingency and Waste Disposal Plan
- Bidders shall prepare a waste disposal and spill contingency plan that includes waste hauling procedures, proposed waste haulers, disposal site(s), and method and frequency of waste testing. Testing of waste materials shall be done by the observation service. The Spill Contingency Plan will include sections on spill containment, staging area protocol, and shop drawings of spill containment structures.

1.03 SCOPE OF WORK

- A. The work of this Section, without limiting the generality thereof, includes the furnishing of labor, materials, tools, equipment, services and incidentals necessary to complete abatement in accordance with the specifications, which are intended to describe, and provide for, completed abatement as required by regulations and this specification; what is called for by any portion of these documents shall be complete in every detail, notwithstanding whether or not every item necessarily involved is particularly mentioned.
- B. Nothing in this scope of work shall prohibit the Contractor from exploring work procedures or technological developments in the realm of lead paint abatement. Only those activities that hasten the completion of project phases (without themselves compromising lead dust generation or control) or that in themselves provide enhanced dust control or lower airborne dust concentrations will be considered. Proposed methods or equipment must be submitted in writing giving all details and shop drawings. **Prior to implementation of work incorporating these alternatives, a written approval from the Owner and the Observation Service must be obtained.**

The contractor shall furnish all labor, materials, services, insurance, equipment and decontamination facilities required to carry out the **COMPLETE PAINT STABILIZATION AND REMOVAL, INCLUDING WASTE DISPOSAL** of lead-based and components as described in this document.

Materials

- a. WARNING LABELS AND SIGNS: In conformance with OSHA
- b. OTHER MATERIALS: Provide all other materials, such as lumber, nails and hardware, which may be required to construct and dismantle the decontamination unit and other barriers, as needed to isolate the work area.
- c. AIR PURIFYING VACUUM EQUIPMENT: Equipped with HEPA filters for lead dust fibers becoming airborne during removal. Air is to pass through the HEPA filters where 99.97 percent of lead dust are removed and retained on the filter.

- d. **TEMPORARY WATER SERVICE CONNECTION:** All connections to the Owner water system shall include backflow protection. Valves shall be temperature and pressure rated for operation at higher temperatures and pressures than those anticipated. After completion of use, connections and fittings shall be removed and restored to original condition.
- e. **WATER HOSES:** Employ heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide the maximum pressure of water into the work area.
- f. **ELECTRICAL SERVICE:** Electrical service will be provided by the Owner. Any special electrical needs or extensions will be provided by the Contractor at the Contractor's expense.

Ground Fault Protection: Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug-in connection of all power tools and equipment.

- g. **FIRST AID:**

First Aid Supplies: Comply with governing regulations and recognized recommendations within the construction industry.

- h. **FIRE EXTINGUISHERS:**

Fire Extinguishers: Provide Type "ABC" dry chemical fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil-flammable liquid fires.

B. **General:**

- 1. Furnish all labor, materials, equipment, and services required for performance of the work included in this Section.
- 2. Prepare work areas as required, including erection of polyethylene barriers at access/egress points, ventilation, changing areas and any other preparations required by Federal, State, or local regulations. Work areas must be approved by the Observation Service prior to beginning abatement.
- 3. Clean-up and decontaminate according to procedures described herein.
- 4. Dispose of all abatement materials in accordance with all federal RCRA requirements and state and local regulations.
- 5. Approvals and Inspections: All work procedures, temporary facilities, equipment, material and services must meet all the requirements of this section, as well as all applicable local, state and federal regulations and guidelines. Where an overlap exists, the most stringent shall apply.

C. **The Scope of Work:** The following items, at a minimum, are required to be performed by the Deleading Contractor.

- 1. Furnish all labor, materials, equipment, and services required for performance of the work included in this Section.

2. Compliance with all applicable federal, state and local regulations pertaining to hazardous materials abatement as well as all requirements of this Section.
3. Paint Removal
 - a. Removal and disposal of loose and peeling paint on building surfaces
 - b. Stabilization of remaining intact paint as necessary to facilitate renovation work.
4. Component Removal
 - a. Removal of components shall be limited to those identified in the scope of work. Execution of component removal shall follow methods specified in section 3.03.

1.04 SPECIAL CONSIDERATIONS

- A. For the work of this section, the Contractor shall field-verify existing conditions and quantities of materials.

1.05 CODES AND STANDARDS

- A. All work shall conform to the standards set by applicable Federal, State and local laws, regulations, ordinances, and guidelines in such form in which they exist at the time of the work on the contract and as may be required by subsequent regulations.
- B. In addition to any detailed requirements of the Specification, the Deleading Contractor shall at his own cost and expense comply with all laws, ordinances, rules and regulations of Federal, State, Regional and Local Authorities regarding handling and storing of lead waste material.
- C. The following references are cited as applicable standard and regulations as amended:
 1. Department of Labor, Occupational Safety and Health Administration Title 29 CFR 1926.62 Lead Standard.
 2. Environmental Protection Agency – Resource Conservation Recovery Act (RCRA) 40 CFR 241, 257, 261, 262.
 - a. General Applicability of Codes, Regulations, and Standards: Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith. In cases where there is a conflict between regulations, the more stringent regulations will be enforced.
 - b. Waste Generator Responsibility: the Owner, per EPA and State of California regulations, is ultimately responsible for the disposition of waste materials. However, this does not relieve the Contractor from liability relating to compliance with all applicable Federal, State, and Local regulations pertaining to work practices, hauling and disposal of wastes (including testing of lead abatement wastes), and

protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations, maintaining medical records of personnel, and providing blood lead testing as required by the applicable HUD, Federal, State, and Local regulations. The Contractor shall hold the Owner and the Observation Service harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

- c. Work shall be in strict compliance with current issue of the following regulations, codes, standards, and attachments. In the case of a conflict between regulations, the most stringent shall be the binding regulation.

Federal Requirements, which govern, lead abatement work or hauling and disposal of lead waste materials include, but are not limited to the following:

- Occupational Safety and Health Administration (OSHA)

29 CFR 1910	General Industry Standard
29 CFR 1910.1025	Lead Hazard Standard
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.1200	Hazard Communication Specifications
29 CFR 1910.145	for Accident Prevention Signs and Tags
29 CFR 1926	Construction Industry Standard
29 CFR 1926.62	Lead - Construction Industry Standard

- Environmental Protection Agency (EPA):

40 CFR 260, 261, 262, 263, 264, and 265 Hazardous Waste Regulations

- Department of Transportation (DOT):

49 CFR 171, 172, 173, 177, 178 and 179 Regulations for Labeling, Mailing and Transporting Hazardous Waste

- American National Standard Institute (ANSI) Publications:

Z88.2-80 Practices for Respiratory Protection

- All attachments, memos and information sheets submitted by Federal, State, and Local agencies.

- All state, county and city codes and ordinances as applicable. Provide a copy on site of EPA, OSHA, State, and City Regulations available for review at any time, governing the work.

- D. All regulations by the above and other governing agencies in their most current version are applicable throughout this project. Where there is a conflict between this Specification and the cited State, Federal, or local regulations, the more restrictive or stringent requirements shall prevail.

- E. This Section refers to many requirements found in these references, but in no way is it intended to cite or reiterate all provisions therein or elsewhere. It is the Deleading Contractor's responsibility to know, understand, and abide by all such regulations and common practices.

1.06 CLEANING

- A. Maintain the work site in a neat and orderly manner at all times, so as not to interrupt or infringe upon the work of other trades.
- B. Perform all final cleaning of abatement work areas as required by California Regulations to the approval of the observation service. Upon completion of work in any given area, Contractor shall remove all material and equipment associated with the work, not necessary to complete other phases of the work in that area.
- C. Daily Clean-Up
 - 1. Thirty (30) minutes prior to the end of each work day, all abatement work areas must be cleaned of all debris and the work area vacuumed with a HEPA vacuum. Under no circumstances will clean-up be permitted to commence when active lead paint abatement work is in progress. All interior surfaces in the work area(s) shall also be cleaned.
 - 2. Cleaning of areas adjacent to the work area(s) will be required if visible debris generated during the work contaminates areas adjacent to the work areas and building exteriors. It is at the discretion of the Observation Service to determine the extent of cleaning. Such cleaning shall include a thorough HEPA vacuuming of all affected surfaces, as determined by the observation service, as well as washdown, and repeated HEPA vacuuming of the surfaces once dry.
 - 3. It is the prerogative of the observation service to test wherever deemed necessary and the Contractor is responsible for meeting and correcting any deficiencies discovered which do not meet the current applicable regulations and requirements of these specifications.

1.07 COORDINATION

- A. At no time shall Deleading Contractor cause or allow to be caused conditions, which may cause risk or hazard to the general public, or conditions that might impair safe use of the facility. The use of the facility's electricity, water or like utilities by the Deleading Contractor shall be as specified in Division 1.
- B. Coordinate the work of this section with that of all other trades. Phasing and scheduling of this project will be subject to the approval of the Owner. The work of this Section shall be scheduled and performed so as not to impede the progress of the project as a whole. Work shall not proceed in any area without the express consent of the Owner. The Deleading Contractor shall be available within 24 hours notice for additional work if after acceptance of the work it is found that full abatement was not achieved from the initial work effort as determined by the observation service.
- C. The proposed schedule for the work in this Section shall show the time involved from start to finish of abatement operations, including preparation, removal, clean-up, testing, and de-mobilization portions of the job.

1.08 COOPERATION AND WORK PROGRESS

- A. The work in this Section shall be carried on under the usual construction progress conditions, in conjunction with all other work at the site. Cooperate with the Owner, the Observation Service, and all sub-Deleading Contractors and equipment suppliers working

on the site, coordinate his/her work with the work of others, and proceed in a manner so as not to delay the progress of the project.

- B. Coordinate his work with the progress of the work of other trades so that the work shall be completed as soon as conditions permit. No work is to extend beyond the stipulated work day unless approved by the observation service, and the Owner.

1.10 SUBSTITUTION OF MATERIALS OR METHODS

- A. The Owner and the Observation Service's approval are required for all modifications to methods, procedures, and design that may be proposed by the Deleading Contractor. It is the intent of these documents to allow the Deleading Contractor to present alternative methods to the abatement processes herein, for review by the Owner and the Observation Service. Any such modifications or substitutions to methods, procedures, or design shall comply with applicable regulations. Deleading Contractor shall submit the proposed modification or substitution in accordance with the requirements of the General Conditions, and no later than five work days prior to planned commencement of proposed modification, for review and approval.
- B. Unless requests for modification or substitution are made in accordance with the above instructions and the instruction of the General Conditions, supported by sufficient proof of equality, Deleading Contractor shall be required to furnish the specifically named or designed items, methods or procedures designated in this Section.
- C. If the modification or substitution necessitates changes or additional work, same shall be provided and the Deleading Contractor shall assume the cost and the entire responsibility thereto unless performed under an approved Change Order Process.
- D. The Owner and the Observation Service's permission to make such substitution shall not relieve the Deleading Contractor from full responsibility for the work.

PART 2 – PRODUCTS

2.01 MATERIALS AND EQUIPMENT

All material and equipment proposed to be used on this project shall be subject to the acceptance of the Owner and the Observation Service.

- A. Polyethylene sheeting, minimum thickness of six (6)-mil.
- B. Plastic bags, minimum thickness of six (6)-mil.
- C. Duct Tape, 2-inch width
- D. Lead Warning Signs as described in HUD Guidelines and OSHA Hazard Communication requirements.
- E. Spray adhesive
- F. Personal Protective Equipment, NIOSH approved respirators and filters
- G. HEPA vacuums
- H. Other materials, tools and equipment necessary for abatement.

- I. Cloth tarpaulin
- J. All other materials required by related sections

2.02 PROTECTIVE CLOTHING

- A. Coveralls (whole body protective coverings). Disposable full-body coverall and disposable head covers shall be worn by all workers in the work area. Sleeves shall be secured at the wrist and pant legs at the ankle with tape. In heat-stress conditions, breathable clothing, such as cotton coveralls, shall be provided. Where non-disposable coveralls are provided, these coveralls shall be cleaned after each wearing. Cleaning of coveralls and other non-disposable clothing shall be in accordance with the provisions for cleaning in 29 CFR 1910.1025.
- B. Boots. Work boots with non-skid soles shall be worn by all workers and where required by OSHA, safety boots (steel toe or steel toe and shank) shall be worn. Provide boots at no cost to workers.

2.03 PROTECTIVE MATERIALS

- A. Polyethylene Sheeting. Flame-resistant polyethylene film in the largest size possible to minimize seams, and six-mil thick, shall be provided. Frosted, clear or black film may be used. Reinforced sheeting may be required when contained area is exposed to outside.
- B. Hazardous Waste Storage Containers. Containers shall be Department of Transportation approved carbon steel 55-gallon drum containers and in accordance with 49 CFR 178, 179. Hazardous Waste Dumpsters must be front loading, lockable. Deleading Contractor shall keep dumpsters locked at all times unless in use.

PART 3 – EXECUTION

3.01 GENERAL

- A. Approvals and Inspection

All temporary facilities, work procedures, equipment, materials, services, and agreements must strictly adhere to and meet this Section along with EPA, OSHA, regulations and recommendations as well as federal, state, and local regulations. Where there exists overlap of these regulations, the most stringent one applies. All work performed by the Deleading Contractor is further subject to approval of the Owner and/or the Observation Service.

- B. Isolation Work Areas

All abatement work areas shall remain isolated from all other trades of the project and remain inaccessible to the public. Deleading Contractor shall monitor the access to the abatement work areas.

- 1. Potential Lead Hazard:

The disturbance or dislocation of lead-based paint may cause lead dust to be released into the building's atmosphere, thereby creating a potential health hazard to workers and building occupants. Apprise all workers, supervisory personnel, and

subcontractors who will be at the job site of the seriousness of the hazard and of proper work procedures that must be followed.

Where in the performance of the work, workers, supervisory personnel, and subcontractors may encounter, disturb or otherwise function in the immediate vicinity of any identified lead-based paint or debris, take appropriate continuous measures as necessary to protect all building occupants from the potential hazard of exposure to airborne lead dust. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state and local agencies.

C. Environmental Monitoring

1. The Observation Service may perform area air sampling and analysis for phases of the work in this Section.
2. During removal, wipe and generated waste samples may be collected by the Observation Service from work areas or locations adjacent to work areas.

D. Personnel Sampling- Deleading Contractor

1. Perform personnel air sampling during all abatement work to determine worker exposure limits. The results of such sampling shall be posted, provided to individual workers, and submitted to the observation service.
2. Provide sampling to check personal exposure levels. Representative sampling shall be taken for the duration of the work shift or for eight hours, whichever is less. Personal samples need not be taken for repeated working conditions if working conditions remain unchanged, but must be taken every time there is a change in the removal operation, either in terms of the location or the type of work. Sampling will be used to determine eight-hour Time-Weighted-Averages (TWA).
3. Air sampling results shall be transmitted to the observation service and made available to individual workers at the job site in written form no more than 48 hours after the completion of a sampling cycle. The reporting document shall list each sample's result, sampling time and date, personnel monitored and their social security numbers, flow rate, sample duration, sample yield, cassette size, and analysts' name and company, and shall include an interpretation of the results. Air sample analysis results will be reported in $\mu\text{g}/\text{m}^3$.
4. The Deleading Contractor's testing lab shall be an AIHA accredited for analysis of metals. Deleading Contractor shall submit for the Owner review and acceptance the name and address of the laboratory, certification(s) of AIHA accreditation for metal analysis, listing of relevant experience in air lead analysis, and presentation of a documented Quality Assurance and Quality Control program.
5. Air monitoring frequency will be established in accordance with the requirements set forth in 29 CFR 1926.62 and 1910.1025 (d).
6. The following establishes the action level and PEL:
 - a. Action Level (lead): $30 \mu\text{g}/\text{m}^3$
 - b. PEL (lead): $50 \mu\text{g}/\text{m}^3$

E. Work Review

1. The Observation Service will review the Deleading Contractor's work practices prior to the start of and during all abatement related work and will report any violations to the Owner. If the Deleading Contractor fails to correct deficiencies within 24 hours, the Observation Service will request that work be stopped and the Owner will be contacted to intervene. The on-site inspector representing the Observation Service may stop the work at any time due to violation of regulations and violation of specification requirements.
2. The Owner and the Observation Service have the authority to stop work due to adverse weather conditions, including but not limited to excessive rain, wind, and heat, which cause or may cause contamination of adjacent areas on surfaces, increased worker exposure, or potential harm to workers.
3. The Observation Service will record a daily log of Deleading Contractor's work practices, and workers working on the project, and make these daily logs a part of the final project documents (Job Book).

F. Respirators and Protective Clothing

1. Personal protection, in the form of disposable coveralls and NIOSH approved respirators, is required for all workers, supervisors, and visitors entering the work area during the removal and cleaning operations.
2. Work clothes shall consist of disposable full-body coveralls, head covers, gloves, boot or shoe covers, and eye protection.
3. Supply workers and supervisory personnel with NIOSH approved respirators and HEPA filters. Respiratory protection shall be implemented for all work performed under this Section unless the Observation Service approves lesser requirements. The respirators shall be sanitized and maintained according to the manufacturer's specifications. Disposable respirators shall not be considered acceptable under any circumstances. Maintain on site a sufficient supply of HEPA filters to allow workers and supervisory personnel to change contaminated filters when needed. The Deleading Contractor is solely responsible for means and methods used and for compliance with applicable regulations and shall use as a minimum:
 - a. Half-mask, negative pressure, air-purifying respirators equipped with high efficiency filters shall be used during removal and cleaning.
4. Respirators shall be individually assigned to removal workers for their exclusive use. All respiratory protection shall be provided to workers in accordance with the written submitted respiratory protection program, which includes all items in OSHA 29 CFR 1910.134 (b) (1-11). A copy of this program shall be kept at the work site, and shall be posted in the clean area.
5. Provide personal sampling to check personal exposure levels. Samples shall be taken for the duration of the work shift or for eight hours, whichever is less. Personal samples need not be taken every day but must be taken in accordance with 29 CFR 1910.1025. Sampling will determine if the eight-hour Time-Weighted-Averages (TWA) exceeds the action level.

6. Comply with all OSHA requirements of worker medical examinations for approval to wear respiratory protection.
7. Blood monitoring and medical surveillance of workers shall occur as follows:
 - a. Periodic medical examination and blood monitoring for all workers and supervisors shall occur within at least two months prior to the start of the work of this Contract.
 - b. All workers on this project shall have blood tests performed after a maximum two months into the work of this Contract. Workers shall be removed from the work site as soon as three blood sample tests average 25 µg/dl or a single test averages 30 µg/dl or above.
 - c. All workers and supervisors shall have indicated, prior to the start of work, a blood lead level of below 30 µg/dl of whole blood.
 - d. More frequent medical examinations are required upon notification that a worker is pregnant, a worker requests medical attention, a worker shows signs of difficulty in breathing during respirator fit-test or use, or as appropriate for workers removed from the work due to lead exposure.
 - e. Workers shall not be sent back to perform deleading work until three blood tests average below 25 µg/dl over a two-week period.

G. Work Procedures - General

In order to avoid possible exposure to dangerous levels of lead and to prevent possible contamination to building occupants and the environment, work shall conform to the following general guidelines:

1. Before leaving an area of work, the worker shall remove all gross contamination, debris and dust from the coveralls by HEPA vacuuming;
2. All persons leaving the exterior removal area must remove their personal protective equipment before leaving the containment. Coveralls shall be removed "inside out" to minimize the dispersal of lead dust and bagged immediately;
3. At the completion of work at each work area, Deleading Contractor shall perform cleaning of the entire work area by the use of HEPA vacuuming.
4. Under no circumstances shall workers or supervisory personnel eat, drink, smoke, chew gum, or chew tobacco in a work area; to do so shall be grounds for the Observation Service to stop all removal operations. Only in the case of life-threatening emergency shall workers or supervisory personnel be allowed to remove their protective respirators while in a work area; in this situation, respirators are to be removed for as short of a duration as possible.

H. Deleading Contractor is responsible for using safe procedures and complying with OSHA regulations to avoid electrical hazards.

I. Security

1. It will be the Deleading Contractor's responsibility to allow only authorized personnel into the work area, and to secure all assigned entrances and exits at the end of the work day.
 2. Maintain a log book in which any person entering or leaving the abatement work area must sign and enter the date and time.
 3. Use of waste containers on site shall be controlled under the following requirements:
 - a. Location of waste containers on site shall be coordinated with General Deleading Contractor, subject to the observation service and the Owner's approval;
 - b. Waste containers lined with two layers of six-mil polyethylene sheeting shall be solid, enclosed containers and locked and secured at all times;
 - c. Deleading Contractor shall comply with all federal, state and local regulations and ordinances regarding hazardous material waste storage;
 - d. Waste storage containers shall not be removed from the site without prior notice and approval by the Observation Service and the Owner.
- J. Training Requirements: The abatement supervisor shall be a CDPH certified lead related construction supervisor. All workers and supervisors performing deleading activities shall have successfully completed training, at a minimum, in the following topics:
1. Health risks of lead, including the nature of occupational lead poisoning, routes of exposure, known dose-response relationships, effects on nervous system, reproductive system, muscular-skeletal systems and kidneys, and the differences in health effects between adults and children.
 2. Personal protective equipment including the types and characteristics of respirator classes, limitations of respirators, proper selection, inspection, donning, use, maintenance and storage of respirators, field-testing the facepiece-to-face seal (positive and negative pressure-fitting tests), qualitative and quantitative fit-testing procedures, variations between laboratory and field fit factors, factors that affect respirator fit (e.g., facial hair), in accordance with 29 CFR 1910.1025 (f) (2) (i), and selection and use of disposable clothing, use and handling of launderable clothing, non-skid shoes, gloves, eye protection, and hard hats.
 3. Medical monitoring requirements for workers including required and recommended tests, reasons for medical monitoring and employee access to records.
 4. Monitoring procedures for workers including description of equipment and procedures, reasons for monitoring, types of samples, and current standards with recommended changes.
 5. Work practices for lead abatement including but not limited to proper set-up of polyethylene barriers, work area preparation, clean-up procedures, posting of warning signs, electrical lockout, proper working techniques, permitted and prohibited practices, and lead waste disposal.

6. Personal hygiene including entry and exit procedures to/from the clean area, prohibition of eating, drinking, smoking, chewing or applying cosmetics in the clean or work area, and potential tracking of lead contamination or otherwise exposing worker's family and/or the public.
7. Special safety hazards that may be encountered including but not limited to electrical hazards, air contaminants, fire and explosion hazards, scaffold and ladder hazards, slippery surfaces, confined spaces, heat stress, and noise.
8. Contamination prevention measures including but not limited to procedures to prevent ambient air, ground or ground water contamination.

3.02 PRE-REMOVAL REQUIREMENTS

A. Abatement - Interior

1. Prior to the commencement of any abatement procedures, a yellow caution tape barrier shall be placed around each work area at a distance sufficient enough to keep bystanders out of the immediate work areas. This area is considered the Regulated Area.
2. All debris must be properly bagged and removed from work areas at the end of the work shift.
3. Clean Area: The Deleading Contractor shall select a clean area outside of the abatement and decontamination unit areas for workers to change into protective equipment. This area shall contain warm water hand-washing facilities (potable water), clean cloths, storage for a HEPA vacuum, and respirator storage space. Table, chairs, and a rest facility shall also be available at this location. Contaminated equipment or personnel shall not be permitted in this area. The floor and walls shall be covered with six-mil polyethylene sheeting.
4. Signs shall be posted at all approaches to the work area warning that deleading work is being conducted in the vicinity. The signs shall read:

**WARNING:
LEAD PAINT REMOVAL HAZARD
UNAUTHORIZED ENTRY PROHIBITED**

**NO SMOKING EATING OR DRINKING
ALLOWED IN THE WORK AREA**

5. Maintain barriers as long as needed for the safe and proper completion of the work. Any breaches in the work area barriers shall be corrected immediately and as necessary during the workday with such breaches reported immediately to the Owner. Work will not be allowed to commence until all barriers are in place and acceptable to the Observation Service.

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5. Maintain barriers as long as needed for the safe and proper completion of the work. Any breaches in the work area barriers shall be corrected immediately and as necessary during the workday with such breaches reported immediately to the Owner and observation service. Work will not be allowed to commence until all barriers are in place and acceptable to the Observation Service.
- B. Barriers and Isolation - Exterior Abatement: Contractor shall perform the following work area preparation methods for the abatement of components considered exterior to the building as described in the scope of work:
1. Prior to the commencement of any abatement procedures, notification requirements must be met, required signs shall be posted and movable objects if any shall be moved a minimum of twenty (20) feet from the perimeter of the building.
 2. Pre-abatement work shall be performed prior to any abatement or component removal commences.
 3. A yellow caution tape barrier shall be placed around each work area at a distance sufficient enough to keep bystanders out of the immediate work areas. This area is considered the Regulated Area.
 4. Construct and maintain sealed polyethylene barriers on all windows and doors of the building to isolate the exterior work area from the interior of the building. At no time shall workers enter the dwellings after the commencement of deleading activities on the exterior.
 5. The polyethylene barriers termed "critical barriers" for any exterior abatement (if applicable) shall consist of the following:

- a. Pre-Clean all interior window surfaces with a HEPA-equipped vacuum.
 - b. Seal duct tape lip to inner most sill, casing and header surfaces of the window.
 - c. Seal two layers of six mil polyethylene sheeting from the duct tape lip on the inside sill of the window and extend up to the inside surface of the top interior casing. The first layer of sheeting applied shall be sealed to the inside faces of the window casing. The polyethylene sheeting shall be sealed to a piece of three inch width duct tape forming a lip attached to the interior window perimeter of the window casing.
 - d. There shall be no cavity in the polyethylene sheeting created that would allow lead dust to accumulate, which cannot be removed with HEPA vacuuming. This shall allow for removal of this polyethylene sheeting from the exterior of the building, without the generation of lead dust, once the window is removed and cleanup is complete.
 - e. The second layer of polyethylene sheeting shall be applied over the first layer and sealed directly to the inner face of the cut tape lip and window sill and casing.
 - f. This sealing of windows shall be done from the interior prior to the beginning of any exterior work.
6. Remove with the use of HEPA vacuum all visible paint chips and debris from base of buildings, on ground, on asphalt and concrete surfaces and all underlying surfaces.
 7. Seal all other openings to the interior of the building with polyethylene sheeting and duct tape at all seams. These openings shall include but not be limited to vents, shafts, conduit/cable openings, etc., at all heights of the building.
 8. The exterior of the building and the ground surrounding the building shall be covered with cloth tarpaulins from the edge of the building to a distance 20 feet from the building on all sides. The tarpaulin must be secured to the ground with stakes and weighted to prevent wind movement of tarpaulins. Protect trees, shrubs and landscaping.
 9. Signs shall be posted at all approaches to the work area warning that deleading work is being conducted in the vicinity. The signs shall read:

**WARNING:
LEAD PAINT REMOVAL HAZARD
UNAUTHORIZED ENTRY PROHIBITED**

**NO SMOKING EATING OR DRINKING
ALLOWED IN THE WORK AREA**

Signs shall be in bold lettering not smaller than two inches tall.

10. Maintain barriers as long as needed for the safe and proper completion of the work. Any breaches in the work area barriers shall be corrected immediately and as necessary during the workday with such breaches reported immediately to the

Owner. Work will not be allowed to commence until all barriers are in place and acceptable to the Observation Service.

11. No barriers shall be removed until the exterior surfaces of the openings are thoroughly cleaned of all visible debris and vacuumed with a HEPA vacuum, the area has been approved by the Observation Service, all debris has been properly bagged and removed from work areas, and lead surface wipe or soil samples have been taken in accordance with provisions detailed herein.
12. Weather - Do not conduct work if wind speeds are greater than 20 miles per hour. Work must stop and cleanup must occur before it rain begins or work should proceed from the inside only,

3.03 ABATEMENT METHODS

A. Abatement - General

1. Feasible engineering controls (i.e., misters, ventilation with HEPA filtration) shall be implemented by Deleading Contractor as requested by the Observation Service, to minimize the possibility of contamination of areas adjacent to the work area.
2. At no time will the following be allowed on this project prior to removal of LCP:
 - a. Wire brushing
 - b. Flame torching
 - c. Open flame burning
 - d. Heat guns
 - e. Chemical stripping with methylene chloride based paint strippers;
 - f. Uncontained abrasive blasting;
 - g. Uncontained power washing;
 - h. Dry sanding or scraping;
 - i. Power sanding without high efficiency particulate air (hepa) attachment;
 - j. Sanding of wood after chemical stripping.

B. Paint Removal

Paint removal shall occur on items specified in the scope of work. Loose and peeling paint removal must be down to the bare substrate or intact paint. The Observation Service will inspect the paint removal. The Observation Service will inspect the paint removal after final cleaning procedures are completed, and before removal of any containment systems. Methods for paint removal must meet the requirements of these specifications and any manufactures recommendations and procedures, as applicable.

The following paint removal methods are available as methods for removal

1. Caustic Paste Application
2. Power washing/sand blasting
3. On-site Paint Removal – Scraping
4. Component removal

C. Component Removal

- a. Removal of components shall be limited to those identified in the scope of work. Execution of component removal shall follow methods specified in section 3.03
- b. Preparation of component removal work areas shall be performed by placing two layers of six mil polyethylene sheeting on the floor of the work area to remain in place until work is completed.
- c. Wet the component to be removed with water to help keep the dust down during the removal process. Before applying the water, be sure there are no electrical circuits inside the component.
- d. For surfaces from which the components are removed, all visible debris shall be removed and any excess paint on the structure from which the component was removed shall be removed by Contractor. This includes paint over-runs, caulking, and putty etc., existing on the substrate and adjacent substrate.
- e. The component shall be removed, wrapped in two layers of six-mil polyethylene sheeting and then stored for waste stream testing and disposal.
- f. The components shall be removed according to this prescribed sequence:
 1. Score paint and caulk lines to the walls adjoining the component to be removed with razor knife. This will provide a space for a pry instrument and will minimize paint chipping and dust generation during removal.
 2. Remove any screws or other fasteners. Using a flat pry instrument and a hammer, carefully pry the affected building component away from the surface to which it is attached. The pry bar should be inserted into the seam at the nail (or other fastening device) at one end of the component and pressure applied. This process should repeat at the other fastening locations until the end of the component is reached. By prying in this manner, the component will be removed intact and dust generation will be minimized. A pry point pad or softener may be required to minimize damage to adjoining surfaces.
 3. Clean up with a HEPA-vacuum all paint chips and flakes generated.
 4. A thorough cleaning of adjoining fixtures shall be performed to include removal of all visible debris and dust from where component was removed by the use of a HEPA filtered vacuum.
 5. Clean-up shall occur daily, and occur in conjunction with the generation of any debris or dust. HEPA filtered vacuums shall be employed to clean up dust and debris associated with the removal of LCP coated

building components.

6. Disposal of all components removed shall be performed in accordance with Section 3.06.

3.04 CLEARANCE

- A. The observation service will perform a visual inspection for remaining lead dust and debris and encapsulation effectiveness before contractor's demobilization.

3.05 FINAL CLEAN-UP PROCEDURES

- A. Upon completion of the abatement in a given work area, final clean-up will be performed by the Deleading Contractor. Final clean-up includes removal of any contaminated material, equipment or debris including polyethylene sheeting from the work area. The polyethylene sheeting shall first be sprayed or misted with water for dust control, then folded in upon it to contain dust particles. All polyethylene sheeting used for critical barriers shall remain in place until final clearance testing results have passed criteria set forth herein.
- B. Once the polyethylene is removed from the work area, cleaning shall begin with a thorough HEPA vacuuming of all surfaces.
- C. Special attention shall be given to personal hygiene and the cleaning of supplies and/or equipment. All mop heads, sponges, and rags shall be replaced or changed daily at a minimum. Rags, mop heads or sponges may be reused if Deleading Contractor has them cleaned via a washing system specially equipped with HEPA filtration.
- D. Clearance testing shall be in the form of a visual inspection for remaining dust and debris, to be performed by the Observation Service. Soil sampling may be performed to determine lead concentrations are below Title 17 recommended levels (400 parts per million) for non child play area.

3.06 DISPOSAL OF WASTE MATERIAL

- A. General
 1. All disposal costs shall be borne by the Deleading Contractor.
 2. The following materials, individually and at a minimum, **shall be tested by Observation Service** and results made available to the Owner and the Hazardous Removal Contactor, to determine whether or not they are to be classified as hazardous waste:
 - a. HEPA filters, respirator cartridges;
 - b. Waste water;
 - c. Sand (if used)
 - d. Dust from HEPA filters and from damp sweeping;
 - e. Plastic sheets, duct tape, or tape used to cover floors and other services during lead-based paint abatement;
 - f. Liquid waste, such as wash water used to decontaminate wood after removal has been performed;
 - g. Rags, sponges, mops, scrapers, and other materials used for testing, abatement, and clean-up;

used for disposal.

9. Deleading Contractor shall ensure that all waste is transported in covered vehicles to a landfill, or lined landfill, if available, in accordance with applicable DOT and EPA regulations.
10. Deleading Contractor shall submit to the observation service and the Owner the waste transfer procedure and route and shall comply with all state, local and DOT regulations concerning hazardous and non-hazardous waste removal and transportation.

C. Disposal of Hazardous Waste

1. Deleading Contractor and transporting Sub-Contractor will be required to comply with RCRA and with all applicable state and local regulations.
2. Deleading Contractor shall comply with all EPA regulations for waste treatment, transfer and disposal.
3. Materials testing as hazardous shall be prepared for disposal as follows:
 - a. Packaged and sealed in approved containers;
 - b. Containers shall be numbered to correspond to the seal number, labeled with the type of materials, date it was filled and sealed, seal number, and weight of sealed container in addition to the information required under 49 CFR 172;
 - c. A log shall be prepared at time of filling, identifying each numbered container and the information from "b" above. A copy of this log shall be furnished to the Observation Service within three working days after the containers are filled;
 - d. Name, location and telephone number of the disposal site used; copy of the state license in which the disposal site is located, locally-issued license, and a signed agreement that the disposal site will accept the hazardous lead waste shall be provided to the Observation Service;
 - e. Name, address and telephone number of any waste Sub-Contractors used; provide copies of licenses and signed agreements to the Observation Service;
 - f. Submit copies of the Hazardous Waste manifest as required by these specifications.
4. Waste Containers. Deleading Contractor will comply with EPA and DOT regulations for containers. Deleading Contractor shall contact state and local authorities to determine their criteria for containers, and present this information to The Owner and the Observation Service. The more stringent regulation shall apply.
5. Waste Transportation. If Deleading Contractor is not a certified hazardous waste transporter, a contract shall be entered into with a certified transporter to move the waste. Transporter shall be at approval of the Owner. Deleading Contractor

shall require the certified hazardous waste transporter to fully comply with RCRA and DOT regulations.

6. Prior to removal of any hazardous waste the following information must be received in writing by the Observation Service and the Owner for their review and approval. Notify the Owner and the Observation Service not less than 48 hours prior to the proposed time of removing and delivery of contaminated waste to the landfill. The Owner and the Observation Service may elect to observe this operation:
 - a. Quantity of hazardous waste;
 - b. Type of waste materials;
 - c. Method of containerizing waste or waste treatment and appropriate licensing, certification and regulatory approvals;
 - d. Proposed waste hauler and disposal route;
 - e. Proposed waste disposal site or landfill.

Once approval is received by Deleading Contractor from the Observation Service, the waste may be transported as required.

7. Receipts from waste hauler and waste disposal site or landfill must be received and approved by the Owner and the Observation Service prior to approval of completion of the applicable phase of work.

D. Waste Reduction Techniques

1. Contractor shall perform all waste reduction techniques such as chipping, paint stripping, in accordance with all federal RCRA and state regulations. The following EPA regulations and requirements are applicable to this work:

40 CFR 61
40 CFR 241
40 CFR 257
40 CFR 261 and 262

Contractor shall obtain federal and state regulatory approval for waste reduction, as applicable.

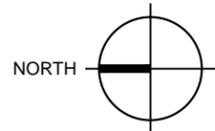
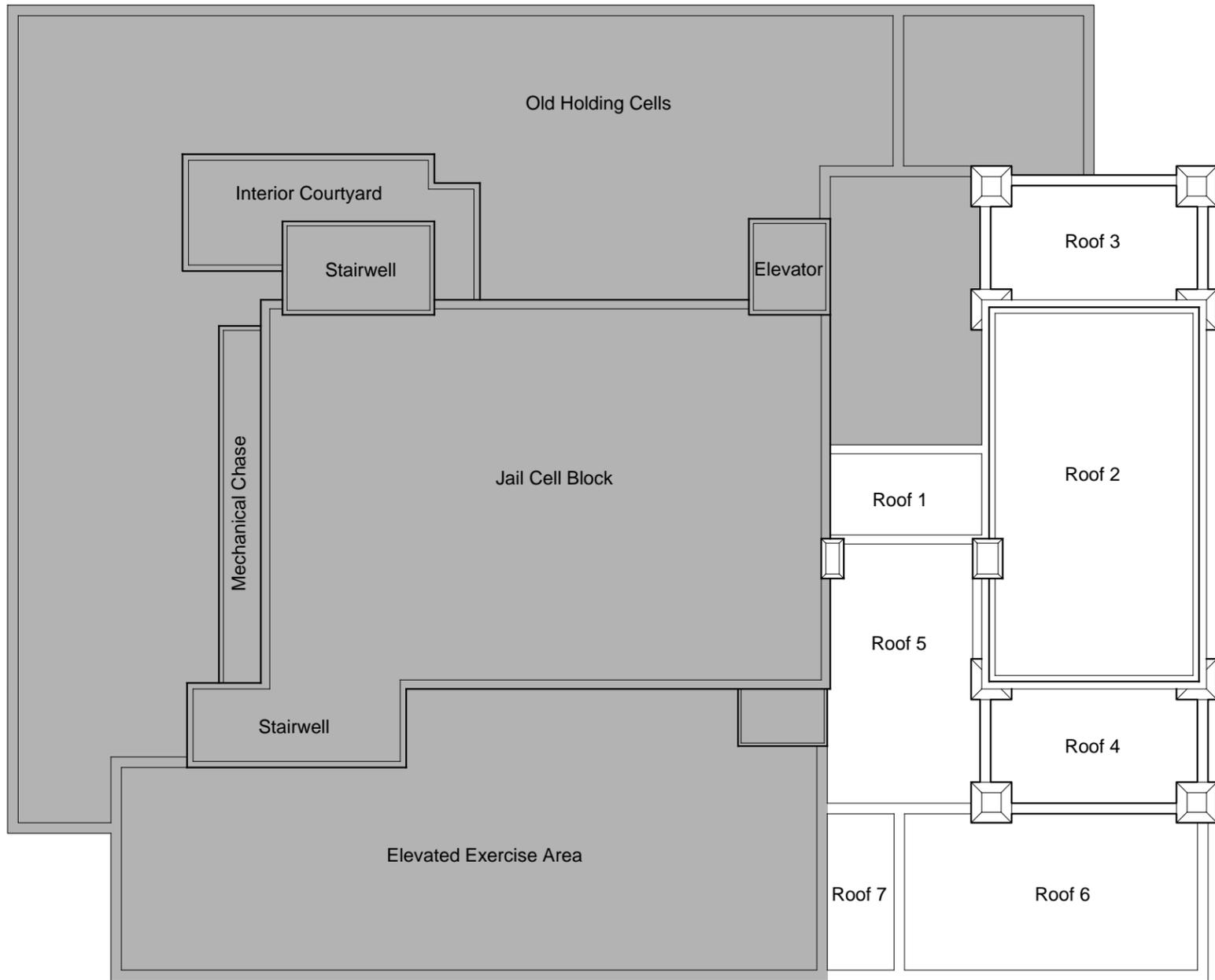
2. Waste reduction is considered a lead abatement procedure and only licensed, trained, and qualified lead abatement workers and supervisors are allowed to perform this work item, including the handling, transfer, and waste reduction of lead abatement wastes from this project.
3. All waste reduction techniques shall first be reviewed and approved by the observation service and the Owner and/or its authorized representative prior to use in this project.
4. No treatment of hazardous waste will be allowed on this project. At no time shall Contractor render lead-containing waste non-hazardous as a process of waste reduction. Reduction of waste volume shall incorporate removal of lead-bearing constituents from abated components only. Any alternatives to this requirement must be presented to the observation service and the Owner in writing for review and approval.

5. Waste reduction shall occur under proper health and safety procedures. Contractor shall submit a Waste Reduction Health and Safety Plan to the Owner for review and approval. This Health and Safety Plan shall include the following as a minimum:
 - a. Worker protection procedures and compliance with OSHA 29 CFR 1926 as currently amended;
 - b. Isolation and containment procedures;
 - c. Procedures to eliminate visible emissions;
 - d. Final cleaning of waste reduction enclosure/work area;
 - e. Wash water filtration/recovery/disposal procedures;
 - f. Final waste reduction processing and disposal matrix;
 - g. All other manifest and transport requirements of this Section.
 6. All costs associated with waste reduction and compliance shall be included in the Contractor's Base Bid, including but not limited to rental of equipment and trailers, power connections, permits, fees, and license.
- E. Cost for Disposal of Hazardous Waste
1. The cost for the correct disposal of all waste of this project shall be included in the Total Base Bid, including the lead abatement waste to be disposed as non-hazardous or hazardous waste as listed in item 3.06 A, and according to 40 CFR 241, 261, and 262.
 2. Deleading Contractor shall submit to its approved laboratory for testing, samples of each type of component removed as part of the work of this project. The Owner's Total Base Bid shall include minimum requirements for testing of materials required by the disposal sites, hazardous and non-hazardous, and as referred to in this Section.

END OF SECTION

APPENDIX A

M³ Hazardous Material Location Plan



ADMINISTRATION WING - ROOF PLAN

SCALE: 1/16"=1'-0"

LEGEND Asbestos Containing Materials

Roof 1

- a) Approximately 180 square feet of black built-up roofing material.
- b) Approximately 30 square feet of light gray parapet mastic located around the perimeter of the roof.
- c) Approximately 5 square feet of gray mastic (located on the HVAC duct connections).
- d) Approximately 50 square feet of black/gray parapet roofing material located around the perimeter of the roof.

Roof 2

- a. Approximately 825 square feet of black built-up roofing material.
- b. Approximately 120 square feet of light gray parapet mastic located around the perimeter of the roof.
- c. Approximately 25 square feet of black mastic located on the roof penetrations.
- d. Approximately 12 square feet of dark gray mastic located on the HVAC duct connections.
- e. Approximately 5 square feet of white mastic located on the HVAC duct connections.
- f. Approximately 2 square feet of off-white duct tape located on the HVAC ductwork.
- g. Approximately 430 square feet of black/gray parapet roofing material located around the perimeter of the roof.

Roof 3

- a. Approximately 260 square feet of black built-up roofing material.

GENERAL NOTES

- 1. All Field Quantities being removed during renovation activities should be field verified by the abatement contractor.
- 2. Shaded areas = No work in these areas



ENVIRONMENTAL CONSULTING LLC

9821 BLUE LARKSPUR LANE, SUITE 100
MONTEREY, CALIFORNIA 93940
PHONE: 831.649.4623
FAX: 831.649.4624
WWW.M3ENVIRONMENTAL.COM

The use of the plans and specifications is restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reuse, reproduction or publication by any method is whole or in part is prohibited. Title to the plans and specifications remains with the architect, and visual contact with them constitutes prima facie evidence of the acceptance of these restrictions.

**TECHNICAL SPECIFICATION FOR
HAZARDOUS MATERIAL ABATEMENT**

COUNTY OF MONTEREY
 OLD JAIL RE-ROOF PROJECT
 142 WEST ALISAL STREET
 SALINAS, CA 93901

JOB NO.

11032.0 TASK 3

PRINT DATE:

PLOT DATE: 4/15/2011

DRAWN BY: AG

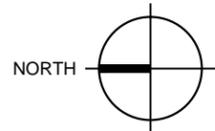
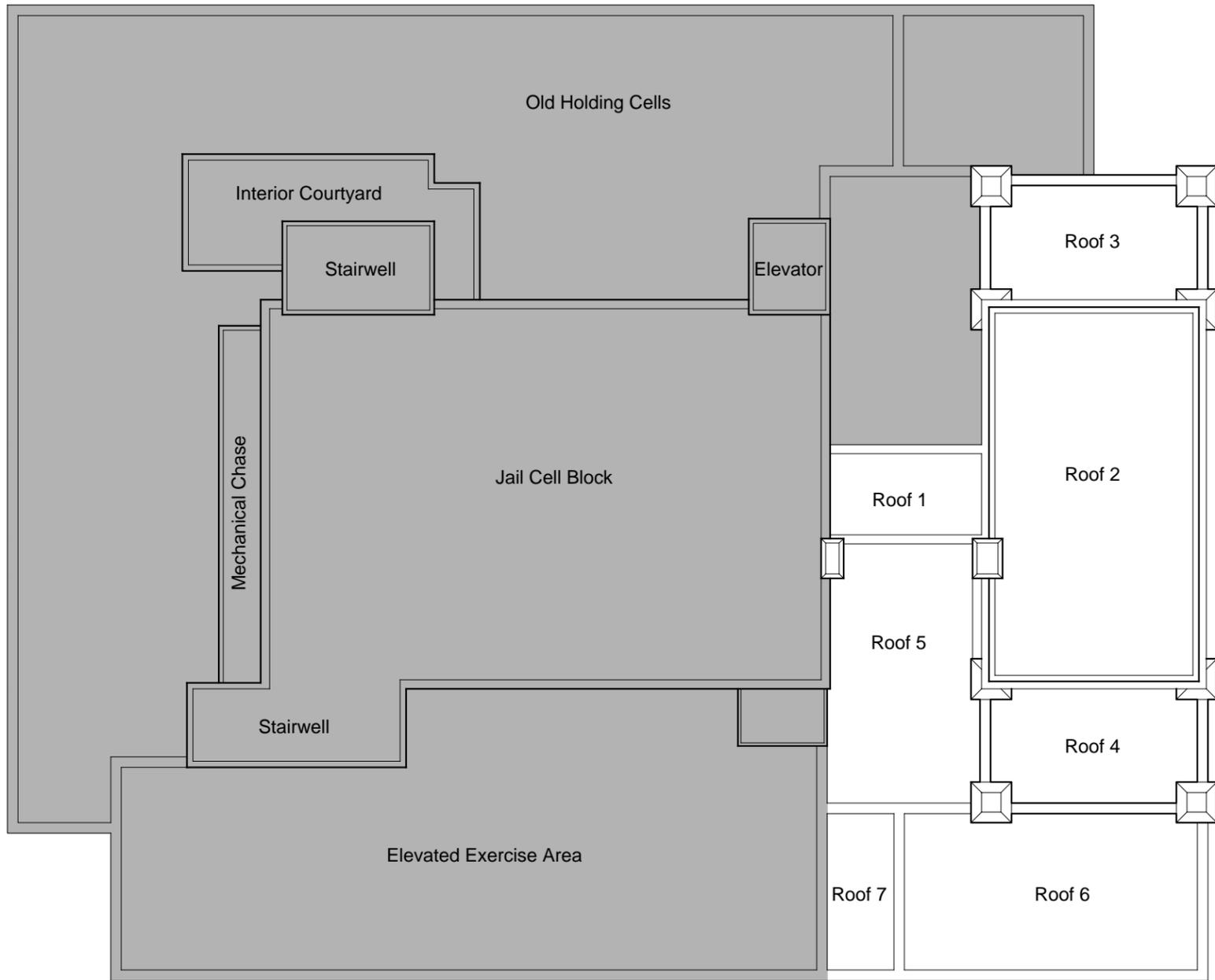
CHECKED BY: LCA

SHEET NAME:

ASBESTOS MATERIAL LOCATIONS

SHEET NO.:

1 of 2



ADMINISTRATION WING - ROOF PLAN

SCALE: 1/16"=1'-0"

LEGEND Asbestos Containing Materials

Roof 4

- a. Approximately 290 square feet of black built-up roofing material.
- b. M Approximately 6 square feet of black mastic located on the roof penetrations.
- c. Approximately 70 square feet of light gray parapet wall mastic located around the perimeter of the roof.
- d. Approximately 36 square feet of black/gray parapet roofing material located around the perimeter of the roof.

Roof 5

- a. Approximately 490 square feet of black built-up roofing material.
- b. Approximately 110 square feet of light gray parapet mastic located around the perimeter of the roof.
- c. Approximately 110 square feet of black/gray parapet roofing material located around the perimeter of the roof.
- d. Approximately 2 square feet of black pipe insulation located on the hot water pipes.
- e. Approximately 8 square feet of gray mastic located on the HVAC ductwork.

Roof 6

- a. Approximately 510 square feet of black built-up roofing material.
- b. Approximately 135 square feet of light gray parapet mastic located around the perimeter of the roof.
- c. Approximately 135 square feet of black/gray parapet roofing material located around the perimeter of the roof.
- d. Approximately 1 square foot of gray caulking on the wall vent.

Roof 7

- a. Approximately 170 square feet of black built-up roofing material.
- b. Approximately 40 square feet of black/gray parapet roofing material located around the perimeter of the roof.

GENERAL NOTES

- 1. All Field Quantities being removed during renovation activities should be field verified by the abatement contractor.
- 2. Shaded areas = No work in these areas



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CHECKED BY: LCA

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SHEET NO.:

2 of 2

APPENDIX B

M³ Environmental Hazardous Materials Inspection Survey



March 25, 2011

Mr. Tony Mitre
County of Monterey
Public Works Department
168 West Alisal Street, 2nd Floor
Salinas, California 93901
831.796.3031 (t)

Via e-mail
mitret@co.monterey.ca.us

Re: Results for Asbestos Inspection Services for the Roofs of the Old County Jail Located at 142 West Alisal Street in Salinas, California
M³ Project No.11032.0 Task 2

Dear Mr. Mitre:

At your request, M³ Environmental Consulting, LLC (M³) conducted inspections for suspect asbestos-containing materials on the roofs of the Old County Jail located at 142 West Alisal Street in Salinas, California. It is to M³'s understanding that the roofs are to undergo future renovations and repair.

The inspection was performed from February 10, 2011 to February 11, 2011 by Mr. Garrett Rodewald, California Certified Site Surveillance Technician (CSST) No 09-4531, under the direction of Ms. Linda C. Arceo, State of California Certified Asbestos Consultant (CAC) No. 92-0760 and California Department of Public Health (CDPH) Inspector /Assessor, and Director of Environmental Services of M³.

The asbestos inspections were performed to identify ACM that will be impacted by the planned renovation project. The Monterey Bay Unified Air Pollution Management District (MBUAPCD) Rule 424 requires a comprehensive survey be conducted for ACM prior to any planned renovation or demolition activity in accordance with the Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation (Title 40 Code of Federal Regulations [CFR] Part 61 Subpart M).

Inspection

The following services were performed during this survey:

- Review reports and other documentation before conducting field work to become familiar with the building.
- Conducted a walk through inspection of the roofs to delineate the scope of work, and to collect core samples from each roof elevation. Asbestos samples were analyzed by polarized light microscopy (PLM).
- Confirmed the presence and quantities of the materials identified in previous reports.
- Inspected, sampled and analyzed suspect ACM not identified in previous reports, specifically checking for layers of roofing.
- Collect two core samples to the base substrate on each of the roof elevations.

- Conducted destructive sampling during this assessment. Patched the sampled locations but cannot guarantee the integrity of the roofs.
- Analyze collected samples in an American Hygiene Association-accredited laboratory using polarized light microscopy (PLM) according to the Environmental Protection Agency-recommended method. Results of analysis will be presented as estimated percentages of asbestos by type (e.g., amosite, chrysotile, crocidolite), as well as types of non-asbestos fibrous materials identified.

Observations

A total of seven roofs were inspected during the asbestos survey. Each roof varied in size and elevation; however, all were of the same composition. The roofs were parapet in construction, consisting of several layers of rolled-on composition roofing materials, and separate parapet roofing materials around the perimeter. Flue penetrations were noted on each roof, sealed with penetration mastic. Each roof was covered with a plastic tarp, adhered to the roof with mastic, and sealed around the perimeter parapet walls. Several of the roofs consisted of water drainage systems to and from the adjacent roofs. Each roof, except roof #4, incorporated the heating, ventilation, and air conditioning (HVAC) system, consisting of HVAC units, ductwork, and penetrations.

Sampling and Analysis

A total of 43 ACM bulk samples were collected and submitted to EMC Labs, Inc. of Phoenix, Arizona for analysis. Laboratory results and Chains of Custody are presented in Appendix A.

Samples were analyzed by Polarized Light Microscopy (PLM) using the Environmental Protection Agency (EPA) Method (EPA/600/R-93/116, July 1993) "Method for the Determination of Asbestos in Bulk Building Materials". The laboratory results of the materials sampled during the field investigation are presented as estimated percentages of asbestos by type (e.g. amosite, chrysotile, crocidolite) as well as types of non-asbestos fibrous materials identified.

Results

Roof 1

Asbestos

The following materials were analyzed and determined to contain detectable concentrations of asbestos:

- Material No. 1 – Approximately 180 square feet of black roofing material (core sample) (containing 40% chrysotile asbestos) located on the roof. Non-friable.
- Material No. 3 – Approximately 30 square feet of light gray parapet mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- Material No. 4 – Approximately 5 square feet of gray mastic (containing 5% chrysotile asbestos) located on the HVAC duct connections. Non-friable.
- Material No. 8 – Approximately 50 square feet of black/gray parapet roofing material (containing 60% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

Non-Asbestos

The following materials were analyzed and determined not to contain detectable concentrations of asbestos:

- Material No. 2 – Dark gray mastic – Adhering the tarp to the roof
- Material No. 5 – White mastic – HVAC duct connections
- Material No. 6 – Residual duct tape/wrap – HVAC ductwork
- Material No. 7 – Black penetration mastic – Metal drainage spout from adjacent roof

Roof 2

Asbestos

The following materials were analyzed and determined to contain detectable concentrations of asbestos:

- Material No. 1 – Approximately 825 square feet of black roofing material (core sample) (containing 50% chrysotile asbestos) located on the roof. Non-friable.
- Material No. 3 – Approximately 120 square feet of light gray parapet mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- Material No. 4 – Approximately 25 square feet of black penetration mastic (containing 10% chrysotile asbestos) located on the roof penetrations. Non-friable.
- Material No. 5 – Approximately 12 square feet of dark gray mastic (containing 10% chrysotile asbestos) located on the HVAC duct connections. Non-friable.
- Material No. 6 – Approximately 5 square feet of white mastic (containing <1% tremolite asbestos) located on the HVAC duct connections. Non-friable.
- Material No. 7 – Approximately 2 square feet of off-white duct tape (containing 85% chrysotile asbestos) located on the HVAC ductwork. Non-friable.
- Material No. 10 – Approximately 430 square feet of black/gray parapet roofing material (containing 60% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

Non-Asbestos

The following materials were analyzed and determined not to contain detectable concentrations of asbestos:

- Material No. 2 – Dark gray mastic – Adhering the tarp to the roof
- Material No. 8 – Foil wrap over fiberglass insulation – HVAC duct penetration
- Material No. 9 – White caulking – Skylight window frame

Roof 3

Asbestos

The following material was analyzed and determined to contain detectable concentrations of asbestos:

- Material No. 1 – Approximately 260 square feet of black roofing material (core sample) (containing 8% chrysotile asbestos) located on the roof. Non-friable.

Non-Asbestos

The only material sampled was determined to contain detectable concentrations of asbestos.

Roof 4

Asbestos

The following materials were analyzed and determined to contain detectable concentrations of asbestos:

- Material No. 1 – Approximately 290 square feet of black roofing material (core sample) (containing 40% chrysotile asbestos) located on the roof. Non-friable.
- Material No. 3 – Approximately 6 square feet of black penetration mastic (containing 5% chrysotile asbestos) located on the roof penetrations. Non-friable.
- Material No. 4 – Approximately 70 square feet of light gray parapet wall mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- Material No. 5 – Approximately 36 square feet of black/gray parapet roofing material (containing 50% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

Non-Asbestos

All of the materials sampled were determined to contain detectable concentrations of asbestos.

Roof 5

Asbestos

The following materials were analyzed and determined to contain detectable concentrations of asbestos:

- Material No. 1 – Approximately 490 square feet of black roofing material (core sample) (containing 12% chrysotile asbestos) located on the roof. Non-friable.
- Material No. 3 – Approximately 110 square feet of light gray parapet mastic (containing 8% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- Material No. 4 – Approximately 110 square feet of black/gray parapet roofing material (containing 60% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- Material No. 5 – Approximately 2 square feet of black pipe insulation (containing 5% chrysotile asbestos) located on the hot water pipes. Non-friable.
- Material No. 7 – Approximately 8 square feet of gray mastic (containing 12% chrysotile asbestos) located on the HVAC ductwork. Non-friable.

Non-Asbestos

The following material was analyzed and determined not to contain detectable concentrations of asbestos:

- Material No. 6 – White fibrous insulation material – Underneath support clamps on hot water pipes

Roof 6

Asbestos

The following materials were analyzed and determined to contain detectable concentrations of asbestos:

- Material No. 1 – Approximately 510 square feet of black roofing material (core sample) (containing 10% chrysotile asbestos) located on the roof. Non-friable.

- Material No. 3 – Approximately 135 square feet of light gray parapet mastic (containing 10% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- Material No. 4 – Approximately 135 square feet of black/gray parapet roofing material (containing 8% chrysotile asbestos) located around the perimeter of the roof. Non-friable.
- Material No. 8 – Approximately 1 square foot of gray caulking (containing 10% chrysotile asbestos) on the wall vent. Non-friable.

Non-Asbestos

The following materials were analyzed and determined not to contain detectable concentrations of asbestos:

- Material No. 2 – Dark gray mastic – Adhering the tarp to the roof
- Material No. 5 – Black penetration mastic – Metal flue penetration
- Material No. 6 – Gray duct tape and residual gray mastic – HVAC unit and ductwork
- Material No. 7 – Gray flex connector – HVAC unit

Roof 7

Asbestos

The following materials were analyzed and determined to contain detectable concentrations of asbestos:

- Material No. 1 – Approximately 170 square feet of black roofing material (core sample) (containing 10% chrysotile asbestos) located on the roof. Non-friable.
- Material No. 6 – Approximately 40 square feet of black/gray parapet roofing material (containing 15% chrysotile asbestos) located around the perimeter of the roof. Non-friable.

Non-Asbestos

The following materials were analyzed and determined not to contain detectable concentrations of asbestos:

- Material No. 4 – Black parapet roofing material – Around wood penetration
- Material No. 5 – White caulking (plaster) – Metal drainage spout from adjacent roof
- Material No. 7 – Gray duct tape – HVAC duct penetration

Standards and Guidelines

Asbestos

State Regulations

The State of California has specific regulations regarding asbestos. California standards for the workplace are issued primarily by the California Occupational Safety and Health Administration (Cal/OSHA). Specific asbestos requirements are contained in Title 8 of the California Code of Regulations (CCR) and in the California Health and Safety Code. Under Cal/OSHA, an ACM means any material containing 1% asbestos. Any manufactured construction materials (friable and non-friable) containing more than 0.1% asbestos by weight are defined as asbestos containing construction material (ACCM). The ACCM designation is applicable only to reporting (user registration, temporary worksite notification, and incident reporting). The removal or disturbance of 100 square feet or more of ACM must be performed by a contractor certified by the California Contractor's State License Board to conduct

asbestos-related work and/or an employer/contractor registered with the California Division of Occupational Safety and Health (DOSH) to perform asbestos-related work.

Monterey Bay Unified Air Pollution Control District

The MBUAPCD under Rule 424, has adopted regulations and policies to implement the asbestos demolition and renovation requirements developed by the USEPA under the NESHAP regulation. An asbestos notification must be submitted to the MBUAPCD at least ten working days prior to (1) any regulated demolition, or (2) any renovation disturbing at least 160 square feet of RACM, 260 linear feet of asbestos-containing pipe insulation, or 35 cubic feet of RACM (where the length or area could not be measured previously) from facility components.

Recommendations

- Prior to demolition or renovation activities that will impact the materials identified in this report as containing asbestos, the materials must be removed and disposed of by a certified asbestos abatement contractor using proper engineering controls and worker protection.
- The use of M³ or another qualified environmental consulting firm to assist in the design of asbestos abatement specifications, observe abatement activities, conduct area air monitoring during abatement, and conduct final visual clearance inspections after abatement activities.
- If any other suspect ACM not identified in this report is found during any demolition, work should cease and additional sampling and analysis should be performed to determine if the materials contain asbestos.
- Contractors and others responsible for any demolition activities on the property should be notified as to the presence of the asbestos so that compliance with regulatory requirements may be met in any planning and bidding phases.
- Abatement contractors must notify the nearest Cal/OSHA district office at least 24 hours prior to any asbestos related work.
- Notification to the appropriate Planning and Building Department and Monterey Bay Unified Air Pollution Control District advising that this survey has been conducted.

Limitations

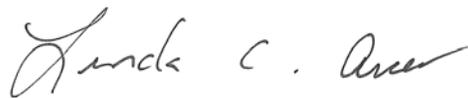
A reasonable effort is made by M³ personnel to locate and sample suspect materials. However, for any facility the existence of unique or concealed hazardous material debris is a possibility. M³ does not warrant, guarantee or profess to have the ability to locate or identify all hazardous material in a facility. M³'s hazardous material testing, results are applicable for the time that testing was conducted and for the condition of surfaces at the time they were tested. During demolition/renovation operations, materials may be uncovered which were not identified during our assessment. Personnel in charge of demolition/renovations should be alerted to note materials uncovered during these operations, which differ substantially from those included in this assessment. M³ does not guarantee or warrant that the areas surveyed are safe, nor does M³'s involvement in this property relieve the Owner of any continuing responsibility of providing a safe environment. M³ is not, and has no responsibility as a generator, operator, treater, storer, transporter or disposer of hazardous materials or waste found or identified as a result of M³'s work.

Thank you for this opportunity to be of service to you. If you have any questions regarding the survey or report, please do not hesitate to contact our office at 831.649.4623.

Sincerely,
M³ Environmental Consulting LLC



Garrett Rodewald
Environmental Technician
Site Surveillance Technician No. 09-4531



Linda C. Arceo
Director of Environmental Services
California Certified Asbestos Consultant No. 92-0760

Attachments:

Appendix A – Laboratory Results
Appendix B – Roof Plans with Sample Locations

APPENDIX A
LABORATORY RESULTS
AND
CHAINS OF CUSTODY



EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096511

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/22/2011
Project Name/	COUNTY OF MONTEREY-ROOF 1	Date Reported:	02/22/2011
Address:	OLD SAIL ROOFS	EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096511-001 1A	ROOF	LAYER 1 Roof Core Sample, Gray/ Tan/ Black	No		Cellulose Fiber 20% Quartz Carbonates Binder/Filler 80%
		LAYER 2 Roof Core Sample, Black	No		Cellulose Fiber 40% Quartz Binder/Filler 60%
		LAYER 3 Roof Core Sample, Black	No		Cellulose Fiber 40% Quartz Binder/Filler 60%
		LAYER 4 Roof Core Sample, Black	No		Cellulose Fiber 40% Quartz Binder/Filler 60%
PLEASE SEE EMC LABS SAMPLE NUMBER 0096511-009 FOR ADDITIONAL LAYERS					
0096511-002 2A	ROOF	Tarp Mastic, Dk. Gray/ Black	No		Cellulose Fiber 10% Carbonates Binder/Filler 90%
0096511-003 3A	ROOF	Parapet Mastic, Lt. Gray/ Black	Yes	Chrysotile 10%	Carbonates Binder/Filler 90%
0096511-004 4A	ROOF	HVAC Duct Mastic, Gray/ Black	Yes	Chrysotile 5%	Cellulose Fiber 2% Quartz Carbonates Binder/Filler 93%
0096511-005 5A	ROOF	HVAC Duct Mastic, White	No		Talc 5% Carbonates Quartz Binder/Filler 95%

EMC LABS, INC.

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Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

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Project Name/	COUNTY OF MONTEREY-ROOF 1	Date Reported:	02/22/2011
Address:	OLD SAIL ROOFS	EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096511-006 6A	ROOF	LAYER 1 Residual HVAC Duct Tape/ Wrap, Off White	No		Cellulose Fiber 80% Fibrous Glass 5% Quartz Gypsum Binder/Filler 15%
		LAYER 2 Residual HVAC Duct Tape/ Wrap, Silver/ Off White	No		Cellulose Fiber 50% Fibrous Glass 10% Aluminum Mica Perlite Binder/Filler 40%
		LAYER 3 Residual HVAC Duct Tape/ Wrap, Off White	No		Cellulose Fiber 40% Fibrous Glass 5% Carbonates Quartz Binder/Filler 55%
0096511-007 7A	ROOF	Penetration Mastic, Black	No		Cellulose Fiber 15% Carbonates Binder/Filler 85%
0096511-008 8A	ROOF	LAYER 1 Parapet Roofing Material, Black/ Gray	No		Cellulose Fiber 35% Synthetic Fiber 5% Quartz Binder/Filler 60%
		LAYER 2 Parapet Roofing Material, Black	Yes	Chrysotile 5%	Cellulose Fiber 30% Carbonates Binder/Filler 65%
		LAYER 3 Parapet Roofing Material, Black/ Brown	Yes	Chrysotile 60%	Cellulose Fiber 5% Quartz Binder/Filler 35%

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Project Name/	COUNTY OF MONTEREY-ROOF 1	Date Reported:	02/22/2011
Address:	OLD SAIL ROOFS	EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096511-009 1A	ROOF- ADDITIONAL LAYERS	LAYER 1 Roof Core Sample, Black	No		Cellulose Fiber 60%
		LAYER 2 Roof Core Sample, Black	No		Quartz Binder/Filler 40% Cellulose Fiber 40%
		LAYER 3 Roof Core Sample, Black	Yes	Chrysotile 40%	Quartz Binder/Filler 60% Cellulose Fiber 5%
		LAYER 4 Roof Core Sample, Black	Yes	Chrysotile 40%	Quartz Binder/Filler 55% Quartz Binder/Filler 60%



Analyst - Johann Hofer



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51ST St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 96511
 TAT: 3 day
 Rec'd: FEB 16 PM
 EMC USE ONLY

COMPANY NAME: **M3 Environmental Cons.**
 9821 Blue Larkspur Ln, Ste 100
 Monterey, CA 93940
 CONTACT: Chris Gatward
 Phone/Fax: (831) 649-4623 / (831) 649-4624
 Email: Chris@m3environmental.com

BILL TO: _____
 (If Different Location)

Now Accepting: **VISA - MASTERCARD** Price Quoted: \$ 6 / Sample \$ ___ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required
 ****Additional charges for rush analysis (please call marketing department for pricing details)
 ****Laboratory analysis may be subject to delay if credit terms are not met

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] / [Return samples to me at my expense]
 (If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: County of Monterey - Old Jail Roofs
 P.O. Number: _____ Project Number: 11032.0 Task 2

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	1A		43 samples See attached logs	Y N			
				N			
				Y N			
				Y N			
				Y N			
8	8A			Y N			
9	1A		Additional layers	Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS: _____
 Sample Collector: (Print) Chris Gatward (Signature) [Signature] 9:30
 Relinquished by: [Signature] Date/Time: 2/16/11 Received by: Diana Federico Date/Time: 2/16/11
 Relinquished by: Diana Federico Date/Time: 2/16/11 Received by: [Signature] Date/Time: 2-16-11
 Relinquished by: _____ Date/Time _____ Received by: _____ Date/Time: 16 20

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

96511

Asbestos Bulk Sampling Log



Client: MoCo
 Project Name: old Jail
 Site Address: _____
 Building: _____
 Project No.: 110320 Task 2

Sample Date: 2/10-11/2011
 Inspector: Rodenwald
 CAC No. _____
 SST No. _____

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
1A			Roof 1	Root core sample				
2A				Dark gray mastic on tarp				6" around perimeter
3A				Light gray parapet mastic				6" around perimeter
4A				Gray mastic on HVAC duct connections				2" x 25' (small duct)
5A				White mastic on HVAC duct connections				1" x 50' (big duct)
6A				Residual HVAC duct tape/wrap				Residual small amount hanging
7A				Black penetration mastic				on metal water way from adjacent roofs
8A				Black Black/gray parapet roofing material				Around perimeter

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096512

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 2	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096512-001 1A	ROOF 2	LAYER 1 Roof Core, Black	No		Cellulose Fiber 40% Gypsum Quartz Binder/Filler 60%
		LAYER 2 Roof Core, Black	No		Cellulose Fiber 40% Gypsum Quartz Binder/Filler 60%
		LAYER 3 Roof Core, Black	No		Cellulose Fiber 40% Gypsum Quartz Binder/Filler 60%
		LAYER 4 Roof Core, Black	Yes	Chrysotile 50%	Gypsum Quartz Binder/Filler 50%
PLEASE SEE EMC LABS SAMPLE NUMBERS 0096512-012 & 0096512-013 FOR ADDITIONAL LAYERS					
0096512-002 1B	ROOF 2	LAYER 1 Roof Core, Black	Yes	Chrysotile 40%	Cellulose Fiber 10% Gypsum Quartz Binder/Filler 50%
		LAYER 2 Roof Core, Black	Yes	Chrysotile 40%	Cellulose Fiber 10% Gypsum Quartz Binder/Filler 50%
		LAYER 3 Roof Core, Black	Yes	Chrysotile 40%	Cellulose Fiber 10% Gypsum Quartz Binder/Filler 50%
		LAYER 4 Roof Core, Black	No		Cellulose Fiber 40% Quartz Binder/Filler 60%
PLEASE SEE EMC LABS SAMPLE NUMBERS 0096512-014 & 0096512-015 FOR ADDITIONAL LAYERS					

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096512

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 2	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096512-003 12A	ROOF 2	Mastic, Dk. Gray	No		Cellulose Fiber 10% Carbonates Binder/Filler 90%
0096512-004 3A	ROOF 2	Parapet Mastic, Lt. Gray	Yes	Chrysotile 10%	Carbonates Binder/Filler 90%
0096512-005 4A	ROOF 2	LAYER 1 Mastic, Dk. Gray	Yes	Chrysotile 10%	Carbonates Binder/Filler 90%
		LAYER 2 Tar, Black	No		Cellulose Fiber 3% Quartz Binder/Filler 97%
0096512-006 5A	ROOF 2	Mastic, Dk. Gray	Yes	Chrysotile 10%	Quartz Binder/Filler 90%
0096512-007 6A	ROOF 2	Mastic, White	Yes	Tremolite <1%	Talc 2% Non-Fibrous Tremolite 2% Carbonates Quartz Binder/Filler 95%
0096512-008 7A	ROOF 2	HVAC Duct Tape, Off White	Yes	Chrysotile 85%	Cellulose Fiber 2% Fibrous Glass 3% Gypsum Quartz Binder/Filler 10%

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Laboratory Report
0096512

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 2	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096512-009 8A	ROOF 2	LAYER 1 Insulation, Yellow	No		Fibrous Glass 97% Cellulose Fiber 1% Quartz Binder/Filler 2%
		LAYER 2 Foil Wrap, Silver/ Tan	No		Cellulose Fiber 50% Fibrous Glass 10% Aluminum Quartz Binder/Filler 40%
		LAYER 3 HVAC Duct Penetration, Off White	No		Cellulose Fiber 90% Quartz Binder/Filler 10%
0096512-010 9A	ROOF 2	Caulking, White	No		Carbonates Binder/Filler 100%
0096512-011 10A	ROOF 2	LAYER 1 Parapet Roofing Material, Gray	Yes	Chrysotile 10%	Carbonates Binder/Filler 90%
		LAYER 2 Parapet Roofing Material, Black	Yes	Chrysotile 40%	Cellulose Fiber 5% Fibrous Glass 5% Gypsum Quartz Binder/Filler 50%
		LAYER 3 Parapet Roofing Material, Black	Yes	Chrysotile 40%	Cellulose Fiber 5% Fibrous Glass 5% Gypsum Quartz Binder/Filler 50%
		LAYER 4 Parapet Roofing Material, Black	Yes	Chrysotile 60%	Quartz Binder/Filler 40%

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Laboratory Report
0096512

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 2	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096512-012 1A	ROOF 2- ADDITIONAL LAYERS	LAYER 1 Roof Core, Black	No		Cellulose Fiber 40%
		LAYER 2 Roof Core, Black	No		Quartz Binder/Filler 60%
		LAYER 3 Roof Core, Black	No		Cellulose Fiber 40%
		LAYER 4 Roof Core, Black	No		Carbonates Binder/Filler 60%
0096512-013 1A	ROOF 2- ADDITIONAL LAYERS	LAYER 1 Roof Core, Black	No		Cellulose Fiber 40%
		LAYER 2 Roof Core, Black	No		Quartz Binder/Filler 60%
		LAYER 3 Roof Core, Black	No		Cellulose Fiber 40%
		LAYER 4 Roof Core, Black	No		Carbonates Binder/Filler 60%

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Laboratory Report
0096512

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 2	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096512-014 2A	ROOF 2- ADDITIONAL LAYERS	LAYER 1 Roof Core, Black	No		Cellulose Fiber 30%
		LAYER 2 Roof Core, Black	No		Quartz Binder/Filler 70%
		LAYER 3 Roof Core, Black	No		Cellulose Fiber 40%
		LAYER 4 Roof Core, Black	No		Carbonates Binder/Filler 60%
0096512-015 2A	ROOF 2- ADDITIONAL LAYERS	LAYER 1 Roof Core, Black	No		Cellulose Fiber 40%
		LAYER 2 Roof Core, Black	No		Quartz Binder/Filler 60%
		LAYER 3 Roof Core, Black	No		Cellulose Fiber 40%
		LAYER 4 Roof Core, Black	No		Carbonates Binder/Filler 60%

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Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096512

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 2	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
---------------------	--------------------	------------------------------------	----------------------	----------------------	------------------------------



Analyst - Johann Hofer



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51ST St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 96572
 TAT: 3 day
 Rec'd: FEB 16 P.M.
 EMC USE ONLY

COMPANY NAME: M3 Environmental Cons.
9821 Blue Larkspur Ln, Ste 100
Monterey, CA 93940
 CONTACT: Chris Gattward
 Phone/Fax: (831) 649-4623 / (831) 649-4624
 Email: Chris@m3environmental.com

BILL TO: (If Different Location)

Now Accepting: **VISA - MASTERCARD**

Price Quoted: \$ 6 / Sample \$ ___ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required

****Additional charges for rush analysis (please call marketing department for pricing details)

****Laboratory analysis may be subject to delay if credit terms are not met

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]

(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS			
					ON	OFF	FLOW RATE	
1	1A		43 samples See attached logs	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
11	10A			<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
12	1 A			Additional layers ↓	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N		
13	1 A		<input type="checkbox"/> Y		<input type="checkbox"/> N			
14	2 A		<input type="checkbox"/> Y		<input type="checkbox"/> N			
15	2 A		<input checked="" type="checkbox"/> Y		<input type="checkbox"/> N			
			<input type="checkbox"/> Y		<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			
				<input type="checkbox"/> Y	<input type="checkbox"/> N			

SPECIAL INSTRUCTIONS:

Sample Collector: (Print) Chris Gattward (Signature) [Signature]
 Relinquished by: [Signature] Date/Time: 2/16/11 Received by: Diana Federica Date/Time: 2/16/11 9:30
 Relinquished by: Diana Federica Date/Time: 2/16/11 Received by: [Signature] Date/Time: 2-16-11 / 1620
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

96512

Asbestos Bulk Sampling Log



Client: Mogo
 Project Name: Old Jail
 Site Address: _____
 Building: Task 2
 Project No.: 11032

Sample Date: 2/10-11/2011
 Inspector: R. Donald
 CAC No. _____
 SST No. _____

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
1A			Roof 2	Root core sample				
1B				✓				
2A				Dark gray mastic on tarp				perimeter & penetrations (all - pipes & ducts)
3A				Light gray parapet mastic				perimeter parapet (on top of wall) *
4A				Black penetration mastic				penetrations (pipes) flues
5A				Dark gray mastic on HVAC duct connections				2" X 70'
6A				White mastic on HVAC duct connections				1" X 50'
7A				Off-white HVAC duct tape				1" X 12'
8A				Foil insulation wrap on HVAC duct penetration	12			fiberglass
9A				White caulking on skylight window framing				window putty 1" X 30'

* and on penetration (HVAC ducts)

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096513

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/18/2011
Project Name/	COUNTY OF MONTEREY-ROOF 3	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096513-001 1A	ROOF 3	LAYER 1 Roof Core, Black	Yes	Chrysotile 8%	Cellulose Fiber 2% Gypsum Quartz Binder/Filler 90%
		LAYER 2 Roof Core, Black	No		Fibrous Glass 30% Quartz Binder/Filler 70%
		LAYER 3 Roof Core, Black/ Brown	No		Cellulose Fiber 90% Quartz Binder/Filler 10%



Analyst - Johann Hofer



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.



ENVIRONMENTAL CONSULTING LLC

Asbestos Bulk Sampling Log

96513

Client: Mog
 Project Name: Old Jail
 Site Address: _____
 Building: _____
 Project No.: 11932-0

Sample Date: 2/10-11/2011
 Inspector: Redwood
 CAC No. _____
 SST No. _____

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
1A			Roof 3	Root core sample				
2A				Dark gray mastic on truss				
3A				Light gray mastic on parapet roofing				
4A				Black/gray parapet roofing material				
5A				Dark gray mastic on HVAC duct				2" x 8' (vertical section)
6A				Dark gray off-white duct tape on HVAC duct				2" x 15' (horizontal section)
7A				Black penetration mastic (HVAC duct)		12		

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096514

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/22/2011
Project Name/	COUNTY OF MONTEREY-ROOF 4	Date Reported:	02/22/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096514-001 1A	ROOF 4	LAYER 1 Roof Core Sample, Tan/ Black	No		Cellulose Fiber 20% Quartz Carbonates Binder/Filler 80%
		LAYER 2 Roof Core Sample, Black	No		Cellulose Fiber 40% Quartz Binder/Filler 60%
		LAYER 3 Roof Core Sample, Black	No		Cellulose Fiber 40% Quartz Binder/Filler 60%
		LAYER 4 Roof Core Sample, Black	Yes	Chrysotile 40%	Cellulose Fiber 2% Fibrous Glass 3% Quartz Binder/Filler 55%
PLEASE SEE EMC LABS SAMPLE NUMBER 0096514-005 FOR ADDITIONAL LAYERS					
0096514-002 3A	ROOF 4	Penetration Mastic, Black/ Off White	Yes	Chrysotile 5%	Cellulose Fiber 7% Fibrous Glass 3% Carbonates Binder/Filler 85%
0096514-003 4A	ROOF 4	LAYER 1 Parapet Wall Mastic, Lt. Gray/ Black	Yes	Chrysotile 10%	Carbonates Binder/Filler 90%
		LAYER 2 Coating, Beige	No		Quartz Binder/Filler 100%
0096514-004 5A	ROOF 4	Parapet Wall (Rolled-on) Roofing Material, Gray/ Black	Yes	Chrysotile 50%	Gypsum Carbonates Quartz Binder/Filler 50%

EMC LABS, INC.

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Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096514

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/10/2011	Date Analyzed:	02/22/2011
Project Name/	COUNTY OF MONTEREY-ROOF 4	Date Reported:	02/22/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096514-005 1A	ROOF 4- ADDITIONAL LAYERS	LAYER 1 Roof Core Sample, Black	Yes	Chrysotile 40%	Fibrous Glass 5%
		LAYER 2 Roof Core Sample, Black	Yes	Chrysotile 40%	Quartz Binder/Filler 55%
		LAYER 3 Roof Core Sample, Black	No		Quartz Binder/Filler 60%
		LAYER 4 Roof Core Sample, Black	No		Cellulose Fiber 40%
					Quartz Binder/Filler 60%



Analyst - Johann Hofer



Signatory - Lab Director - Kurt Kettler

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CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51ST St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 96514
 TAT: 3 day
 Rec'd: FEB 16 PM
 EMC USE ONLY

COMPANY NAME: M3 Environmental Cons.
9821 Blue Larkspur Ln, Ste 100
Monterey, CA 93940
 CONTACT: Chris Gathward
 Phone/Fax: (831) 649-4623 / (831) 649-4624
 Email: Chris@m3environmental.com

BILL TO: _____

Now Accepting: VISA - MASTERCARD Price Quoted: \$ 6 / Sample \$ ___ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required
 ****Additional charges for rush analysis (please call marketing department for pricing details)
 ****Laboratory analysis may be subject to delay if credit terms are not met

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
 (If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: County of Monterey - Old Jail Roofs
 P.O. Number: _____ Project Number: 11032.0 Task 2

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	1A		43 samples	Y N			
2	1		See attached logs	Y N			
				Y N			
				Y N			
4	5A			Y N			
				Y N			
5	1A		Additional layers	Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS: _____
 Sample Collector: (Print) Chris Gathward (Signature) [Signature]
 Relinquished by: [Signature] Date/Time: 2/16/11 Received by: Diana Federico Date/Time: 2/16/11 9:30
 Relinquished by: Diana Federico Date/Time: 2/16/11 Received by: [Signature] Date/Time: 2-16-11
 Relinquished by: _____ Date/Time: _____ Received by: [Signature] Date/Time: 16/11

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096515

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/11/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 5	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096515-001 1A	ROOF 5	LAYER 1 Roof Core Tar, Black	No		Cellulose Fiber 5% Carbonates Quartz Binder/Filler 95%
		LAYER 2 Roof Core, Black	Yes	Chrysotile 12%	Carbonates Binder/Filler 88%
		LAYER 3 Roof Core, Black	No		Cellulose Fiber 25% Fibrous Glass 15% Gypsum Binder/Filler 60%
0096515-002 3A	ROOF 5	Parapet Wall Mastic, Lt. Gray	Yes	Chrysotile 8%	Carbonates Binder/Filler 92%
0096515-003 4A	ROOF 5	LAYER 1 Rolled Roofing, Black/ Beige	Yes	Chrysotile 8%	Fibrous Glass 2% Carbonates Quartz Binder/Filler 90%
		LAYER 2 Rolled Roofing, Black/ Gray	Yes	Chrysotile 15%	Carbonates Quartz Binder/Filler 85%
0096515-004 5A	ROOF 5	Pipe Insulation, Black/ Gray	Yes	Chrysotile 5%	Gypsum Carbonates Binder/Filler 95%

EMC LABS, INC.

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Laboratory Report
0096515

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/11/2011	Date Analyzed:	02/21/2011
Project Name/	COUNTY OF MONTEREY-ROOF 5	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096515-005 6A	ROOF 5	LAYER 1 Pipe Clamp Insulation coating, Beige/yellow	No		Fibrous Glass 10% Gypsum Quartz Binder/Filler 90%
		LAYER 2 Pipe Clamp Insulation, yellow	No		Fibrous Glass 100%
		LAYER 3 Pipe Clamp Insulation Mud, dk. Gray	No		Fibrous Glass 25% Gypsum Carbonates Quartz Binder/Filler 75%
0096515-006 7A	ROOF 5	HVAC Mastic, Beige/ Black/ Gray	Yes	Chrysotile 12%	Carbonates Quartz Binder/Filler 88%



Analyst - Kenneth Scheske



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51ST St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 96515
 TAT: 3 day
 Rec'd: FEB 16 PM
 EMC USE ONLY

COMPANY NAME: M3 Environmental Cons.
9821 Blue Larkspur Ln, Ste 100
Monterey, CA 93940
 CONTACT: Chris Gatward
 Phone/Fax: (831) 649-4623 / (831) 649-4624
 Email: Chris@m3environmental.com

BILL TO: (If Different Location)

Now Accepting: **VISA - MASTERCARD**

Price Quoted: \$ 6 / Sample \$ ___ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required

****Additional charges for rush analysis (please call marketing department for pricing details)

****Laboratory analysis may be subject to delay if credit terms are not met

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
 (If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: County of Monterey - Old Jail Roofs
 P.O. Number: _____ Project Number: 11032.0 Task 2

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
<u>1</u>	<u>1A</u>		<u>43 samples see attached logs</u>	<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			
<u>6</u>	<u>7A</u>			<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			
				<u>Y</u> N			

SPECIAL INSTRUCTIONS:

Sample Collector: (Print) Chris Gatward (Signature) [Signature] 9:30
 Relinquished by: [Signature] Date/Time: 2/16/11 Received by: Diana Federico Date/Time: 2/16/11
 Relinquished by: Diana Federico Date/Time: 2/16/11 Received by: [Signature] Date/Time: 2/16/11 1630
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.



ENVIRONMENTAL CONSULTING LLC

Asbestos Bulk Sampling Log

96575

Client: MCG
 Project Name: Old Saw
 Site Address: _____
 Building: _____
 Project No.: 11032's Task 2

Sample Date: 2/16/14
 Inspector: Rosenwald
 CAC No. _____
 SST No. _____

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
1A			Roofs	Root core sample				
1B				Dark gray mastic on tarp				
2A				Light gray parapet wall mastic				Around perimeter (4" thick)
3A				Gray/black roofing material on parapet wall (rolled-on)				@ night of parapet material
4A				Black pipe insulation				
5A				White fibrous pipe clamp insulation		2		on hot water lines (not the team) (elbows/pens)
6A				Gray HVAC air Landler mastic		2		on hot water lines (clamp fixatures)
7A								(2" x 5") x 10 duct work pieces connect

EMC LABS, INC.

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Laboratory Report

0096516

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/11/2011	Date Analyzed:	02/18/2011
Project Name/	COUNTY OF MONTEREY-ROOF 6	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096516-001 1A	ROOF 6	LAYER 1 Roof Core, Gray/ Black	Yes	Chrysotile 10%	Cellulose Fiber 2% Gypsum Quartz Binder/Filler 88%
		LAYER 2 Roof Core, Black	No		Cellulose Fiber 5% Quartz Binder/Filler 95%
		LAYER 3 Roof Core, Black	No		Cellulose Fiber 30% Quartz Binder/Filler 70%
		LAYER 4 Roof Core, Black	No		Cellulose Fiber 30% Quartz Binder/Filler 70%
0096516-002 2A	ROOF 6	Mastic, Dk. Gray/ Black	No		Cellulose Fiber 10% Carbonates Binder/Filler 90%
0096516-003 3A	ROOF 6	Parapet Mastic, Lt. Gray/ Black	Yes	Chrysotile 10%	Quartz Binder/Filler 90%
0096516-004 4A	ROOF 6	Parapet Mastic, Lt. Gray/ Black	Yes	Chrysotile 8%	Fibrous Glass 2% Quartz Binder/Filler 90%
0096516-005 5A	ROOF 6	Penetration Mastic, Black	No		Cellulose Fiber 5% Quartz Binder/Filler 95%
0096516-006 6A	ROOF 6	LAYER 1 HVAC Duct Tape, White/ Off White	No		Cellulose Fiber 98% Quartz Binder/Filler 2%
		LAYER 2 Residual Tape Mastic, Gray	No		Cellulose Fiber 4% Fibrous Glass 1% Carbonates Binder/Filler 95%

EMC LABS, INC.

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Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096516

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/11/2011	Date Analyzed:	02/18/2011
Project Name/	COUNTY OF MONTEREY-ROOF 6	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096516-007 7A	ROOF 6	HVAC Hex Connector Material, Gray	No		Fibrous Glass 98% Carbonates Binder/Filler 2%
0096516-008 8A	ROOF 6	Caulking Wall Vent, Black	Yes	Chrysotile 10%	Carbonates Binder/Filler 90%



Analyst - Johann Hofer



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51ST St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 96516
 TAT: 3 day
 Rec'd: FEB 16 P.M.
 EMC USE ONLY

COMPANY NAME: **M3 Environmental Cons.**
 9821 Blue Larkspur Ln, Ste 100
 Monterey, CA 93940
 CONTACT: Chris Gatward
 Phone/Fax: (831) 649-4623 / (831) 649-4624
 Email: Chris@m3environmental.com

BILL TO: (If Different Location)

Now Accepting: **VISA - MASTERCARD** Price Quoted: \$ 6 / Sample \$ ___ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required
 ****Additional charges for rush analysis (please call marketing department for pricing details)
 ****Laboratory analysis may be subject to delay if credit terms are not met

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] / [Return samples to me at my expense]
 (If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: County of Monterey - Old Sail Roofs
 P.O. Number: _____ Project Number: 11032.0 Task 2

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1			43 samples See attached logs	Y N			
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
8				Y N			
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						
	Y N						

SPECIAL INSTRUCTIONS: _____

Sample Collector: (Print) Chris Gatward (Signature) [Signature] 9:30

Relinquished by: [Signature] Date/Time: 2/16/11 Received by: Diana Federico Date/Time: 2/16/11

Relinquished by: Diana Federico Date/Time: 2/16/11 Received by: [Signature] Date/Time: 2-16-11

Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: 16:30

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

96516

Asbestos Bulk Sampling Log



Client: M66
 Project Name: old Jail
 Site Address: _____
 Building: _____
 Project No.: 1032-0 Task 2

Sample Date: 2/8/11
 Inspector: Rode Wald
 CAC No. _____
 SST No. _____

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
1A			Roof 6	Root core sample				
TB								
2A				Dark gray mastic on tarp				Along perimeter + along parapet walls (8")
3A				Light gray parapet mastic				Along perimeter + along parapet walls (1")
4A				Black/gray parapet roof material				Along walls + on top of walls
5A				Black penetration mastic	1			One metal flue penetration
6A				Gray HVAC duct tape + residual tape mastic (gray)				On HVAC system + ducting (connections) (2" x 70')
7A				Gray HVAC Hex connector material	16			2 connections (8 square feet each)
8A				Gray caulking on wall vent				1" around 3' x 1" vent

EMC LABS, INC.

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Laboratory Report
0096517

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/11/2011	Date Analyzed:	02/18/2011
Project Name/	COUNTY OF MONTEREY-ROOF 7	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0096517-001 1A	ROOF 7	LAYER 1 Roof Core Mastic, Black	Yes	Chrysotile 10%	Gypsum Quartz Binder/Filler 90%
		LAYER 2 Roof Core Tarp, Black	No		Cellulose Fiber 60% Quartz Binder/Filler 40%
0096517-002 4A	ROOF 7	LAYER 1 Parapet Roofing, Dk. Gray/ Black	No		Cellulose Fiber 15% Quartz Binder/Filler 85%
		LAYER 2 Tar, Black	No		Cellulose Fiber 3% Quartz Binder/Filler 97%
0096517-003 5A	ROOF 7	Caulking Plaster, White	No		Cellulose Fiber 3% Fibrous Glass 1% Gypsum Mica Carbonates Binder/Filler 96%
0096517-004 6A	ROOF 7	LAYER 1 Parapet Roofing, Black	Yes	Chrysotile 15%	Cellulose Fiber 2% Carbonates Binder/Filler 83%
		LAYER 2 Mastic, Black	No		Cellulose Fiber <1% Carbonates Binder/Filler 99%
0096517-005 7A	ROOF 7	Duct Tape, Gray	No		Cellulose Fiber 97% Quartz Binder/Filler 3%

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0096517

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONSULTING	Job# / P.O. #:	11032.0 TASK 2
Address:	9821 BLUE LARKSPUR LN, STE 100 MONTEREY CA 93940	Date Received:	02/16/2011
Collected:	02/11/2011	Date Analyzed:	02/18/2011
Project Name/	COUNTY OF MONTEREY-ROOF 7	Date Reported:	02/21/2011
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	CHRIS GATWARD
		Collected By:	Customer

Lab ID	Sample	Layer Name /	Asbestos	Asbestos Type	Non-Asbestos
Client ID	Location	Sample Description	Detected	(%)	Constituents



Analyst - Johann Hofer



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

CHAIN OF CUSTODY

EMC Laboratories
 9830 S. 51ST St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 96517
 TAT: 3day
 Rec'd FEB 16 PM
 EMC USE ONLY

COMPANY NAME: M3 Environmental Cons.
9821 Blue Larkspur Ln, Ste 100
Monterey, CA 93940
 CONTACT: Chris Gathward
 Phone/Fax: (831) 649-4623 / (831) 649-4624
 Email: Chris@m3environmental.com

BILL TO: _____

Now Accepting: VISA - MASTERCARD Price Quoted: \$ 6 / Sample \$ ___ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required
 ****Additional charges for rush analysis (please call marketing department for pricing details)
 ****Laboratory analysis may be subject to delay if credit terms are not met

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] / [Return samples to me at my expense]
 (If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: County of Monterey - Old Jail Roofs
 P.O. Number: _____ Project Number: 11032.0 Task 2

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	1A		43 samples	Y N			
5	7A		See attached logs	Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS: _____
 Sample Collector: (Print) Chris Gathward (Signature) [Signature]
 Relinquished by: [Signature] Date/Time: 2/16/11 Received by: Diana Federico Date/Time: 2/16/11 9:30
 Relinquished by: Diana Federico Date/Time: 2/16/11 Received by: [Signature] Date/Time: 2-21-11
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: 09:00

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

96517

Asbestos Bulk Sampling Log



Client: M660
 Project Name: old jail
 Site Address: _____
 Building: _____
 Project No.: 11032-0 Task 2

Sample Date: 2/11/14
 Inspector: R. Rosenthal
 CAC No. _____
 SST No. _____

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
1A			Roof. 7	Root core sample				
UB								
2A				Dark gray mastic on tarp				Around roof perimeter (all 4 sides) & wood box penetration
3A				Light gray parapet mastic				Around roof perimeter (only 3 sides) & metal penetration on top & sides (12")
4A				Black parapet roofing on wood penetration				2" around 15" O.D. metal drainage pipe from roof
5A				White caulking (plaster) around duct				Roof perimeter (only 3 sides) ↑ 6"
6A				Black/dark gray parapet roofing at base of walls				On HVAC duct penetration 15" O.D. metal
7A				Gray duct tape	3			

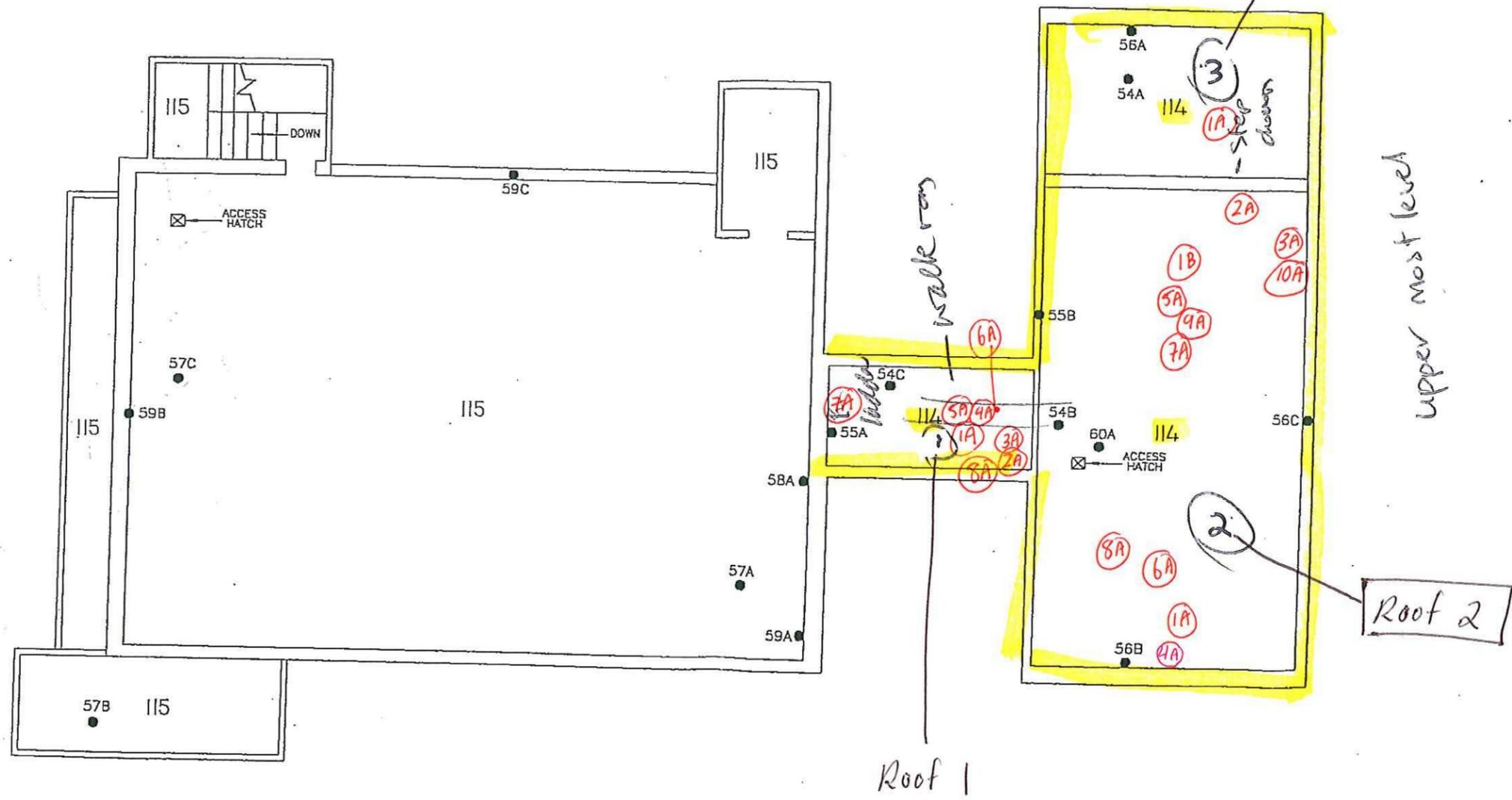
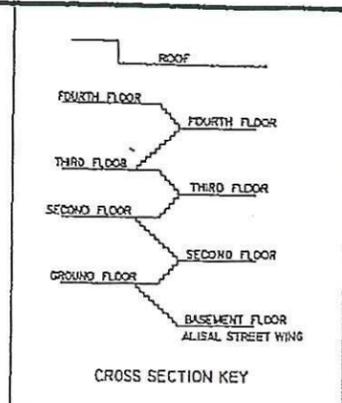
APPENDIX A

FLOOR PLANS
WITH
SAMPLE LOCATIONS



Asbestos Sample Locations :

Old County Jail - Roof Plan
 142 W. Alisal St., Salinas, CA
 m³ project No. 11032.0 Task 2
 Asbestos Pre-Renovation Survey
 2/10/11 - 2/11/11 Barrett Rodewald
 Page 1 of 4



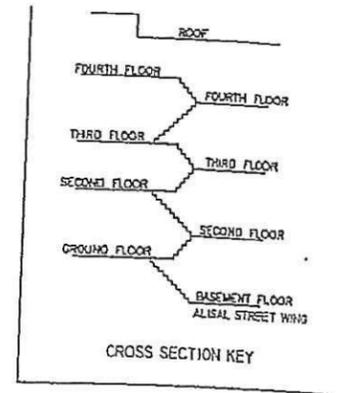
LEGEND:
 ● NEGATIVE ASBESTOS SAMPLE LOCATION
 ⊗ POSITIVE ASBESTOS SAMPLE LOCATION

ASBESTOS SAMPLE LOCATION MAP		FIGURE: 5	OF 9
ROOF		PROJECT #: 11081.0050	AUGUST 1998
COUNTY OF MONTEREY OLD COUNTY JAIL 142 WEST ALISAL STREET SALINAS, CALIFORNIA			



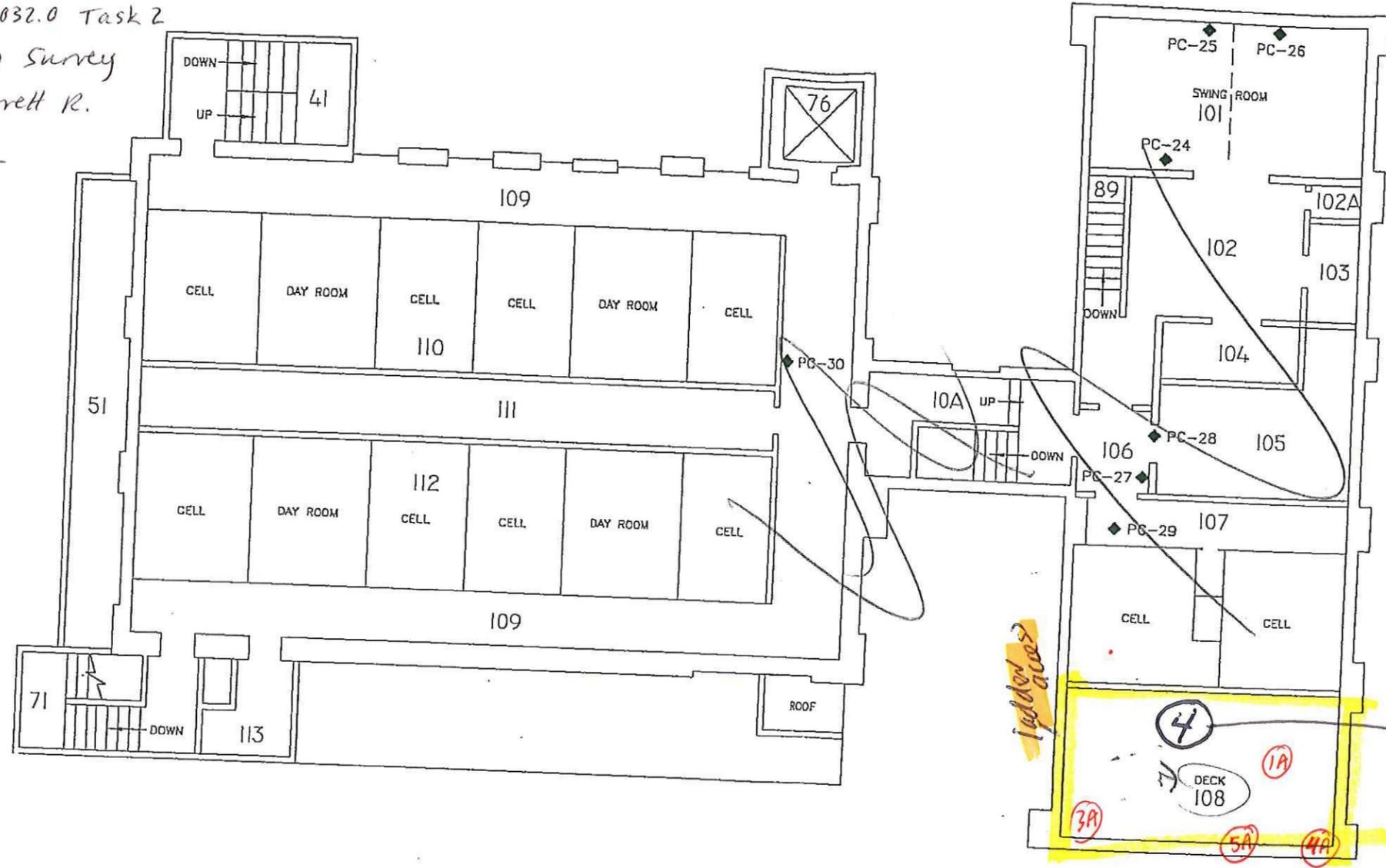
Asbestos Sample Locations:

Old County Jail - Roof plan
 142 W. Alisal St., Salinas, CA
 m3 Project No. 11032.0 Task 2
 Asbestos Pre-Remo Survey
 2/10/11 - 2/11/11 Garrett R.
 Page 2 of 4



C

D



A

B

UPPER FOURTH FLOOR

LOWER FOURTH FLOOR

LEGEND:
 ◆ PAINT CHIP SAMPLE LOCATION

NOT TO SCALE

FIGURE: 9 OF 9

PAINT CHIP SAMPLE LOCATION MAP
 FOURTH FLOOR

PROJECT #: 11081.0050 AUGUST 1998

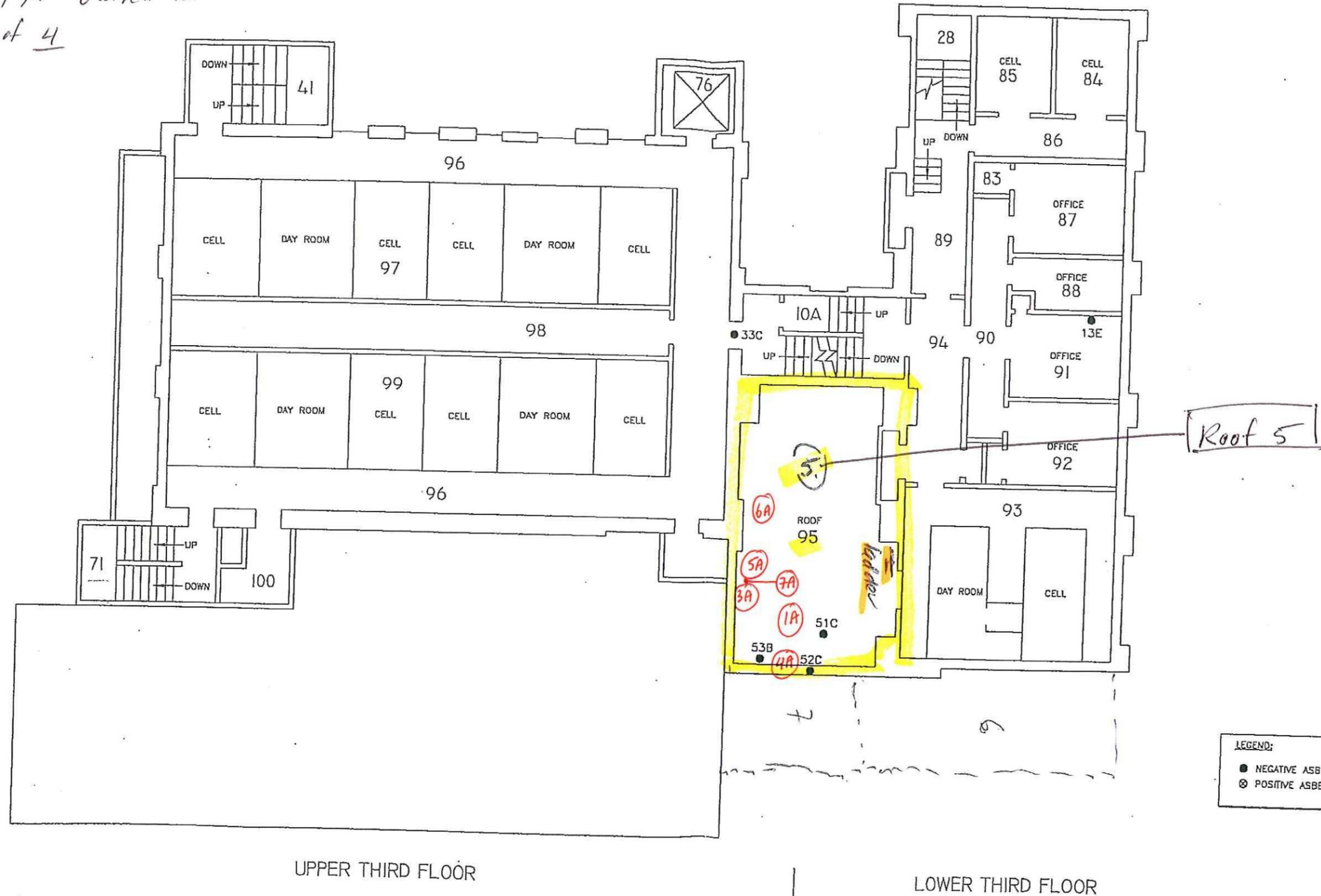
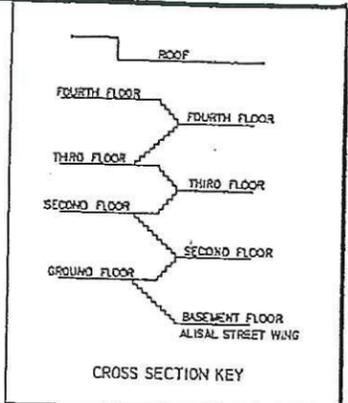
COUNTY OF MONTEREY
 OLD COUNTY JAIL
 142 WEST ALISAL STREET
 SALINAS, CALIFORNIA



Asbestos Sample Locations:

RFP #10149 EXHIBIT H

Old County Jail - Roof Plan
 142 W. Alisal St., Salinas, CA
 m³ Project No. 11032.0 Task 2
 Asbestos Pre-Reno Survey
 2/10/11 - 2/11/11 Garrett R.
 Page 3 of 4



LEGEND:
 ● NEGATIVE ASBESTOS SAMPLE LOCATION
 ⊗ POSITIVE ASBESTOS SAMPLE LOCATION

FIGURE: 3 OF 9
 ASBESTOS SAMPLE LOCATION MAP
 THIRD FLOOR
 PROJECT #: 11081.0050 AUGUST 1998
 COUNTY OF MONTEREY
 OLD COUNTY JAIL
 142 WEST ALISAL STREET
 SALINAS, CALIFORNIA



Asbestos Sample Location:

RFP #10149 EXHIBIT H

Old County Jail - Roof Plan
 m³ Project No. 11032.0 Task 2
 2/10/11 - 2/11/11 Barrett R.
 Page 4 of 4

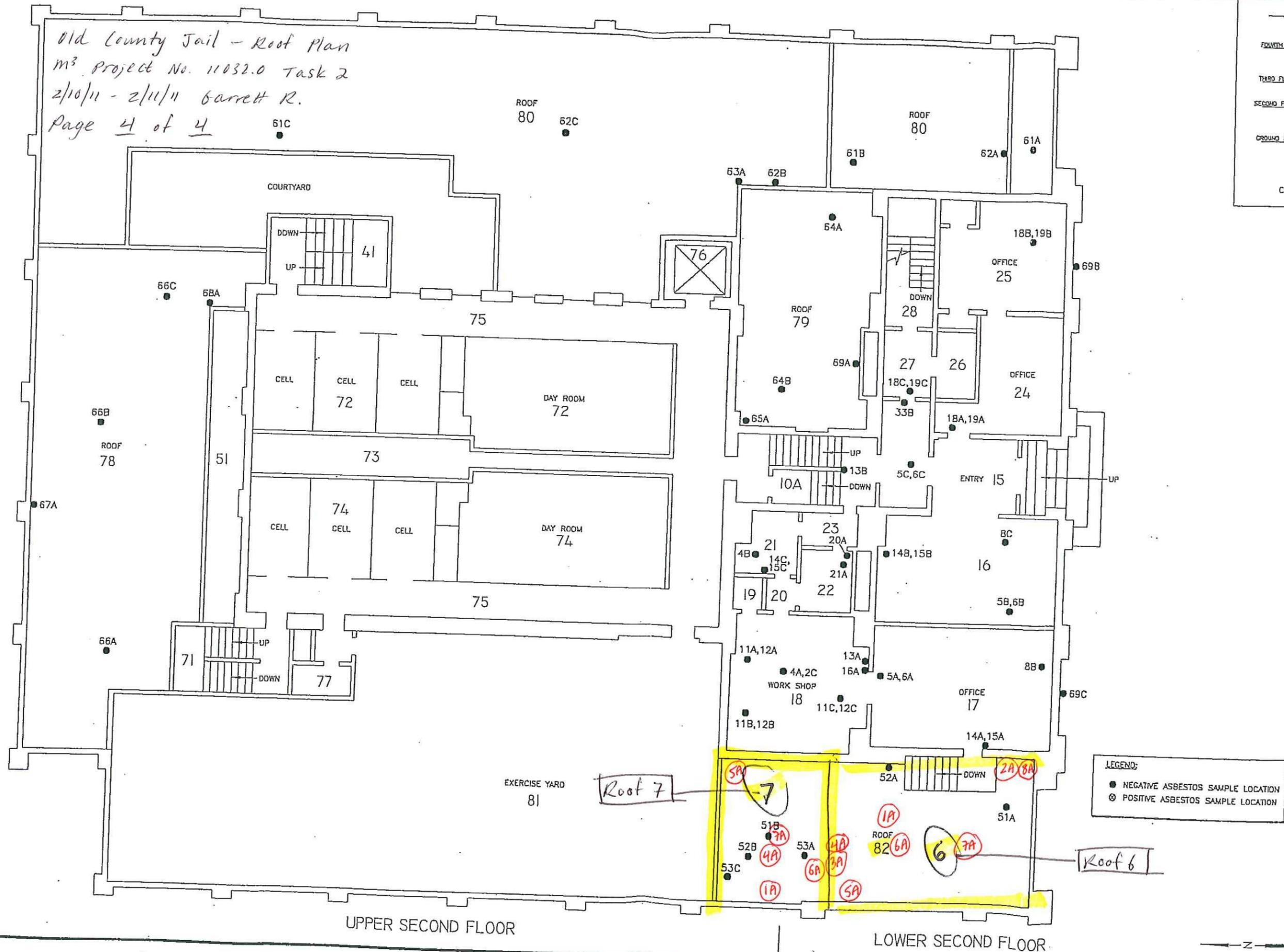
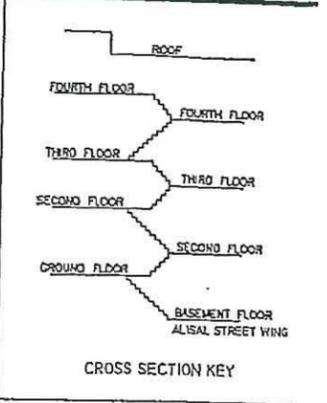


FIGURE: 2 OF 9
 ASBESTOS SAMPLE LOCATION MAP
 SECOND FLOOR
 PROJECT #: 11081.0050 AUGUST 1998

COUNTY OF MONTEREY
 OLD COUNTY JAIL
 142 WEST ALISAL STREET
 SALINAS, CALIFORNIA



LEGEND:
 ● NEGATIVE ASBESTOS SAMPLE LOCATION
 ⊙ POSITIVE ASBESTOS SAMPLE LOCATION

