



**CITY OF SAUSALITO
SPECIFICATIONS AND BID DOCUMENTS**

**FOR
2013 Street Improvement Project**

April, 2013

**TODD TEACHOUT
CITY ENGINEER**

**CITY OF SAUSALITO
420 LITHO STREET
SAUSALITO, CALIFORNIA**

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APPENDIX

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NOTICE TO BIDDERS**2013 Street Improvement Project**

NOTICE IS HEREBY GIVEN that the City of Sausalito will receive sealed bids for the **2013 Street Improvement Project**. Such sealed bids shall be received at the Office of the City Engineer of the City of Sausalito at 420 Litho St. **until May 23, 2013 at 2:00 PM**, at which time they will be publicly opened and read.

GENERAL DESCRIPTION OF WORK: The project provides for crack sealing, terminal blend chip sealing, slurry sealing, pavement and base failure repairs, removing and reconstructing PCC pavement, HMA roadway construction, curb ramps, striping, sanitary sewer line replacement and ancillary work along various streets in Sausalito as shown on the project plans.

PRE-BID MEETING:

Time: 5/13/2013, 2:00 PM

Location: City Hall Conference Room, 420 Litho St., Sausalito, CA

BIDDERS' REQUIREMENTS: Each Bid shall be made in accordance with the Plans, Specifications and Contract Documents prepared therefore, and available for review at the office of the City Engineer.

As noted in the Instructions to Bidders, all bid questions must be in writing and can be emailed to: tteachout@ci.sausalito.ca.us.

Bids shall be submitted only upon proposal forms included in the bid documents. The Contract will be awarded, if at all, to the responsible Bidder submitting the lowest responsive Bid based on the Total Base Bid and Bid Alternate amount.

Each Bid must be accompanied by a Proposal Guarantee in the form of a certified or cashier's check, currency or Bid Bond, equal to ten percent (10%) of the aggregate amount of the Bid. The check or Bond shall be made payable to the City of Sausalito. Bidders must use the bond form enclosed with the bid documents; other bond forms will not be accepted. Any Bid not accompanied by a Bid Security may be rejected. Such amount accompanying the Bid shall be given as a guarantee that the Bidder will enter into the contract if awarded thereto and the Bidder will file the Contract Bonds and other requisite documents required within the specified time period in accordance with the Instructions to Bidders.

The City Council reserves the right to reject any and all Bids, to make any awards or rejections in which it alone considers to be the best interest of the City, and to waive any irregularity or informality in any Bid received.

Pursuant to Section 1770, *et seq.* of the California Labor Code, the Contractor and all Subcontractors shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations and shall be responsible for complying with requirements concerning the employment of apprentices and apprenticeable occupations.

Bidders shall be licensed in accordance with California law at the time bids are submitted. The license required to perform this project is a class A (GENERAL ENGINEERING).

Bidders should have fully inspected the project site in all particulars and become thoroughly familiar with the terms and conditions of the Contract Documents and local conditions affecting the performance and costs of the work prior to submitting a bid. Submission of a Bid by Bidder warrants that Bidder has visited the site of the Project and is thoroughly familiar with the work required of the Contract Documents.

Upon award of the contract, the successful bidder shall furnish a bond for faithful performance in the amount of one hundred percent (100%) of the contract price; it shall also furnish a labor and material bond to secure the payment of all claims of labor and material in the amount of 100 percent (100%) of the contract price. Such bonds shall be secured from a surety company satisfactory to the City of Sausalito. No bid or bid security may be withdrawn for 60 calendar days after the bids are opened. Payment and Performance Bonds are required to be filed and approved by the City Engineer before the Contractor begins the Work. Aforementioned Faithful Performance Bond, upon City acceptance of Notice of Completion, shall serve as an one-year Warranty Bond or the Contractor shall submit a new one-year Warranty Bond to the City in the amount of 10% of Faithful Performance Bond.

Contract amounts to be paid under this contract will be subject to 10% retention to ensure performance. Pursuant to Public Contract Code Section 22300, for monies earned by the CONTRACTOR and withheld by the City of Sausalito to ensure the performance of the Contract, the CONTRACTOR may, at its option, choose to substitute securities meeting the requirements of Public Contract Code Section 22300. The value of any securities so substituted shall be valued by the City's Finance Director, whose decision on the valuation of the securities shall be final.

By order of the City Council of the City of Sausalito, County of Marin, State of California.

Dated: June 28, 2011

CITY OF SAUSALITO

by: _____

Todd Teachout, City Engineer

BID PROPOSAL

PROPOSAL TO THE CITY COUNCIL OF THE CITY OF SAUSALITO

STATE OF CALIFORNIA, FOR PROJECT KNOWN AS:

"2013 Street Improvement Project"

Name of bidder:

Address of bidder:

Telephone Number:

Fax Number:

Date of bid:

The undersigned as bidder declares that the only person or persons interested in this proposal as Principal, are those named herein; that the proposal is made without collusion with any other person, firm or corporation, that he has carefully examined the site and the location of the proposed work and improvement and all the contract documents relating to said project, and that he proposes to provide all necessary transportation, equipment, tools, apparatus, permits, materials and other means of construction, and to do all the work and labor required and specified for the following amount:

All addenda bound with the Specifications or issued during time of bidding are included in this proposal. Receipt of the following addenda and date thereof is acknowledged:

The undersigned has carefully checked all bid figures and agrees that City shall not be responsible or

chargeable for any errors or omissions on the part of the undersigned in making up this bid.

Accompanying this bid is a guarantee in the form of corporate surety bond, cashier's or certified check or cash in the sum of _____ dollars (\$ _____), payable to or in favor of City.

This bid may not be withdrawn for a period of sixty (60) days from opening thereof.

In compliance with Public Contract Code Sections 4100 *et seq.*, there is set forth in the attached list of subcontractors the name and location of the mill, shop or office of each subcontractor who will perform work, labor or render service to the undersigned in or about the construction of the work or improvement contemplated by the bid and the portion of the work to be done by said subcontractor.

Bidder is licensed by the State of California under Contractor's license:

No. _____, Class _____.

INDIVIDUAL

Name of bidder: _____

Address of bidder:

CORPORATION

If bidder is a corporation, state legal name of corporation, state of incorporation, and name of president and secretary.

Name of corporation: _____

Name of president: _____

Name of secretary: _____

State of incorporation: _____

PARTNERSHIP

If a partnership, state full name of all general partners and name under which business is conducted.

Name of partnership:

Names of general partners: _____

Signature of Bidder:

Base Bid Forms

Item	Description	Quantity	Unit	Unit Price	Price
1	Storm Water Pollution Prevention Plan	1	LS		
2	Storm Water Annual Report	1	EA		
3	Rain Event Action Plan	2	EA		
4	Tow Vehicle	6	EA		
5	Construction Area Signs	1	LS		
6	Traffic Control System	1	LS		
7	Remove Concrete Pavement (Roadway)	5,970	SY.IN		
8	Lead Compliance Plan	1	EA		
9	Clearing and Grubbing	1	LS		
10	Class II Aggregate Base	226	TON		
11	Crack Treatment	1	LS		
12	Asphalt Concrete Pavement Repair	2,090	SF		
13	Asphalt Concrete Base Repair	9,010	SF		
14	Hot Mix Asphalt (Type A)	250	TON		
15	Place Seal Coat	13,628	SY		
16	Terminal Blend Asphalt Rubber	4,770	GAL		
17	Screenings (preheated/precoated)	150	TON		
18	Place Slurry Seal	18,000	SY		
19	Slurry Aggregate (Type II, Black Rock)	150	TON		
20	Latex Emulsified Asphalt	5,700	GAL		
21	Jointed Plain Concrete Pavement	5,970	SY.IN		
22	Pavement Anchor	30	CY		
23	Reinforcement (JPCP)	7,800	LBS		
24	Reinforcement (Pavement Anchor)	3,100	LBS		
25	Subdrain (3-inch perforated PVC)	26	LF		
26	Minor Concrete (Curb Ramp)	10	EA		
27	Mobilization	1	LS		

	Sanitary Sewer Work				
28	Sanitary Sewer Lateral Condition Assessment	2	EA		
29	Supplemental Work (Sanitary Sewer Lateral Replacement)	16	EA		
TOTAL PRICE					

The City reserves the right to reject any and all Bids and to waive any and all irregularities and informalities in Bids not involving price, time or changes in the Work. The City reserves the right to reject any nonconforming, nonresponsive, incomplete, unbalanced or conditional Bids.

In case of discrepancy between the unit price and the line item cost set forth for a unit price item, the unit price shall prevail and, shall be utilized as the basis for determining the lowest responsive, responsible bidder. However, if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or is the same amount as the entry in the "Item Cost" column, then the amount set forth in the "Item Cost" column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between bid amounts stated in words and in figures will be resolved in favor of the amount stated in words. Final payment shall be determined by the Engineer from measured quantities of work performed based upon the unit price.

If the contract is to be awarded, it will be awarded to responsible Bidder that submits the lowest responsive bid. **City of Sausalito will determine the lowest bid on the basis of the grand total of the base bid Schedule Plus alternate bid schedule.**

BIDDER'S BOND**KNOW ALL PERSONS BY THESE PRESENTS:**

That we,

as Principal, and

as Surety, are held and firmly bound unto the City of Sausalito, County of Marin, State of California (hereinafter call "City") in the penal sum of 10% of the total aggregate amount of the bid of the Principal above named, submitted by said Principal to City for the Work described below, 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, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that a bid to City for certain construction specifically described as follows,

2013 Street Improvement Project

has been submitted by Principal to City:

NOW, THEREFORE, if the aforesaid Principal shall not withdraw said bid within the period specified therein after the opening of the same or, if no period be specified, within sixty (60) days after said opening, and shall within the period specified therefore, or if no period be specified, within ten (10) calendar days after the prescribed forms are presented to him for signature, enter into a written contract with City, in the prescribed form, in accordance with the bid as accepted, and file the two bonds with City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, and evidence of the required insurance, or in the event of the withdrawal of said bid with the period specified or the failure to enter into such contract and give such bonds and evidence of insurance within the time specified, if the Principal shall pay the City the difference between the amount specified in said bid and the amount for which the City may procure the required Work, if the latter amount be in excess of the former, together with all costs incurred by the City in again calling for bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and effect.

Surety for value received, hereby stipulates and agrees that no change, extension of time, alterations, 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 anyway 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 specifications.

In the event suit is brought upon said bond by City and judgment is recovered, the Surety shall pay all costs incurred by City in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this ___ day of _____, 2013.

_____(Seal)

_____(Seal)

_____(Seal)

Principal

_____(Seal)

_____(Seal)

_____(Seal)

Surety

Address

NOTE: Signature of those executing for Surety must be acknowledged and evidence of corporate authority attached.

DESIGNATION OF SUBCONTRACTORS/SUPPLIERS

In compliance with the Subletting and Subcontracting Fair Practices Act of the Public Contract Code of the State of California, each bidder shall set forth below: (a) the name and the location of the place of business and (b) the portion of the work which will be done by each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work in an amount in excess of one-half of one percent (0.5%) of the Contractor’s Total Bid Price. Notwithstanding the foregoing, if the work involves streets and highways, then the Contractor shall list each subcontractor who will perform work or labor or render service to Contractor in or about the work in an amount in excess of one-half of one percent (0.5%) of the Contractor’s Total Bid Price or \$10,000, whichever is greater. No additional time shall be granted to provide the below requested information.

If no subcontractor is specified, for a portion of the work, or if more than one subcontractor is specified for the same portion of Work, to be performed under the Contract in excess of one-half of one percent (0.5%) of the Contractor’s Total Bid Price or \$10,000, whichever is greater if the work involves streets or highways, then the Contractor shall be deemed to have agreed that it is fully qualified to perform that Work, and that it shall perform that portion itself.

Portion of Work	Subcontractor	Location of Business

Portion of Work	Subcontractor	Location of Business

By: _____
Bidder's Signature

CONTRACTOR'S LICENSING STATEMENT

The undersigned is licensed in accordance with the laws of the State of California providing for the registration of Contractors.

Contractor's License Number

Name of Individual Contractor (Print or Type):

Signature of Owner

Business Address and Telephone Number

Name of Firm

Business Address and Telephone Number

Signature, title, and address of members signing on behalf of the partnership:

Name _____ Title

Address

Name _____ Title

Address

or

Name of Corporation

Business Address and Telephone Number

Corporation organized under the laws of the State of

Signature of President of Corporation

Signature of Secretary of Corporation

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CONTRACTOR'S EXPERIENCE STATEMENT

The following outline is a record of the undersigned Bidder's experience in construction of a type similar in magnitude and character to that contemplated under this Contract. Additional numbered pages may be attached as needed.

CONTRACTOR INFORMATION AND EXPERIENCE FORM

A. INFORMATION ABOUT BIDDER

Indicate not applicable ("N/A") where appropriate.

NOTE: Where Bidder is a joint venture, pages shall be duplicated and information provided for all parties to the joint venture.

1.0 Name of Bidder: _____

2.0 Type, if Entity: _____

3.0 Bidder Address: _____

Facsimile Number

Telephone Number

4.0 How many years has Bidder's organization been in business as a Contractor?

5.0 How many years has Bidder's organization been in business under its present name?

5.1 Under what other or former names has Bidder's organization operated?: _____

6.0 If Bidder's organization is a corporation, answer the following:

6.1 Date of Incorporation: _____

6.2 State of Incorporation: _____

6.3 President's Name: _____

6.4 Vice-President's Name(s): _____

6.5 Secretary's Name: _____

6.6 Treasurer's Name: _____

7.0 If an individual or a partnership, answer the following:

7.1 Date of Organization: _____

7.2 Name and address of all partners (state whether general or limited partnership):

8.0 If other than a corporation or partnership, describe organization and name principals:

9.0 List other states in which Bidder's organization is legally qualified to do business.

10.0 What type of work does the Bidder normally perform with its own forces?

11.0 Has Bidder ever failed to complete any work awarded to it? If so, note when, where, and why:

12.0 Within the last five years, has any officer or partner of Bidder's organization ever been an officer or partner of another organization when it failed to complete a contract? If so, attach a separate sheet of explanation:

14.0 List Trade References:

15.0 List Bank References (Bank and Branch Address):

16.0 Name of Bonding Company and Name and Address of Agent:

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LIST OF COMPLETED PROJECTS - LAST THREE YEARS

****Duplicate Page if needed for listing additional completed projects.****

The Bidder shall list below at least three (3) projects completed in the last three (3) years of at least \$100,000 in Contract Amount involving construction of sewer pipeline rehabilitation that indicate the Bidder's experience as a Contractor. If the Bid is submitted by a Joint Venture, list at least four (4) completed projects, at least two (2) of which shall be by the Joint Venture. It is acceptable to submit this information on other forms as long as the information required below is included. Failure to provide this information with the Bid may render the Bid non-responsive and may be the basis for rejection of the Bid. Please include only those projects which are similar enough in size and complexity to demonstrate Bidder's ability to perform the required Work.

Project / Owner/Contact Information	Description and Value of Bidder's Work	Contract Time

EXPERIENCE AND TECHNICAL QUALIFICATIONS QUESTIONNAIRE

Personnel:

The Bidder shall identify the key personnel to be assigned to this project in a management, construction supervision or engineering capacity.

1. List each person's job title, name and percent of time to be allocated to this project:

2. Summarize each person's specialized education:

3. List each person's years of construction experience relevant to the project:

4. Summarize such experience:

Bidder agrees that personnel named in this Bid will remain on this Project until completion of all relevant Work, unless replaced by personnel of equivalent experience and qualifications approved in advance by City.

SAFETY QUALIFICATION CRITERIA

The following information will be used to determine if the bidder meets the minimum safety requirements for this Project. To qualify to bid and be awarded the Project, the Contractor's three year average Workers' Compensation Experience Modification (EMR) must not be greater than 1.1 (110%). The Bidder shall list its Experience Modification Rate for the last three (3) complete years (available from your insurance carrier).

Name of Bidder: _____

Year	EMR
_____	_____
_____	_____
_____	_____

Three Year Average = _____

To verify the above information, the City will contact the Bidder's Workers' Compensation Insurance carrier. The Bidder shall authorize its carrier to release this information. Failure to release this information will result in the Bid being non-responsive and result in automatic disqualification of the Bid.

Worker's Compensation Insurance Company: _____

Contact Person for Insurance Company: _____

Telephone Number: () _____

Additional Bidder's Statements:

If the Bidder feels that there is additional information which has not been included in the questionnaire above, and which would contribute to the qualification review, it may add that information in a statement here or on an attached sheet, appropriately marked:

B. VERIFICATION AND EXECUTION

These Bid Forms shall be executed only by a duly authorized official of the Bidder:

I declare under penalty of perjury under the laws of the State of California that the foregoing information is true and correct:

Name of Bidder _____

Signature _____

Name _____

Title _____

Dated _____

**NONCOLLUSION AFFIDAVIT
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID**

State of California }
 }
 } ss.
County of Marin }

_____, being first duly sworn, deposes and says that he or she
(Bidder's Authorized Representative)

is _____ of _____ the party making the foregoing bid
(Title of Representative) *(Bidder's Name)*

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

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signature of: President, Secretary,
 Manager, Owner or
 Representative

Subscribed and sworn to before me
this _____ day of _____, 2013

Signature of Notary Public in and for

the County of _____,

State of _____.

This Affidavit to be fully executed and submitted with the bid.

DESIGNATION OF INSURANCE AGENT OR BROKER

It is proposed that the following insurance agent or broker will provide policies of insurance or insurance certificates as are required by the Contract Documents.

Insurance Agent or Broker

Street

City, Zip _____

Telephone

STATEMENT OF BIDDER

Please state whether you, or any officer of yours, or any employee of yours who may have a proprietary interest in your bid, have ever been disqualified, removed, or otherwise prevented from bidding on or completing a federal, state, or local government project because of a violation of law (including the False Claims Act) or safety regulations.

YES _____ NO _____

If your answer is yes, explain the circumstances.

I declare under penalty of perjury that the foregoing information is true and correct.

Executed at _____ on

STATEMENT OF MANDATORY SITE VISIT

The Bidder certifies that he has visited the construction site during the bid period, per the requirements in the Instructions to Bidders.

Bidder's Signature

Date

**AFFIDAVIT OF SAFETY COMPLIANCE
TO BE EXECUTED
BY BIDDER, NOTARIZED AND SUBMITTED WITH BID**

2013 Street Improvement Project

The Contractor agrees in accordance with the requirements of Section 00700-4.07, **SAFETY**, that for purposes of California Labor Code Section 6400 and related provisions of law, the Contractor, the Contractor's privities and any other entities acting pursuant to this Contract will be "employers" responsible for furnishing employment and a place of employment that is safe and healthful for the employees, if any, of such entities acting pursuant to this Contract and that the City will not be responsible for having hazards corrected and/or removed at the location where the Work under the Contract is to be performed.

The Contractor hereby acknowledges City concerns regarding safety at its facility and at the Project worksite. The Contractor shall conduct its operations to eliminate or reduce hazards and risks associated with Contractor's activities, to prevent accidents and injuries, and to prevent property damage. Therefore, the Contractor is fully responsible for and shall be in compliance with all of the most current safety, health and environmental regulations (federal, state and local). Non-compliance with these regulations may result in suspension or termination of work in progress. The Contractor's Safety Programs must accomplish the foregoing objectives. The Contractor certifies that its Safety Programs comply and will satisfy these requirements. The Contractor also certifies that each Subcontractor and Sub-subcontractors and other parties with which it has agreements to perform work on the Project worksite will also comply and will satisfy these requirements.

Parts A, B, C and D of the Contractor Safety Operations Requirements included with the Contract Documents are not required to be completed and submitted with the Bid. The completed forms shall be submitted for the City's review with the Contractor's Safety Program prior to commencement of work on the Project as required in Section 00700-4.07B, **Safety Program**. The Contractor certifies that it can furnish satisfactory evidence of compliance with the elements identified in the attached Contractor Safety Operations Requirements and the Contractor's Safety Program. The Contractor further acknowledges that it's Subcontractors and Sub-subcontractors will provide all Safety Compliance documents to Contractor in accordance with this Section 00490, **AFFIDAVIT OF SAFETY COMPLIANCE** and Section 00700-4.07, **SAFETY**.

Executed On: _____, _____

Signature

Name of Bidder

Name (Print)

Title

(Attach a Certificate of Acknowledgement for the Notary to the Affidavit)

CERTIFICATE OF ACKNOWLEDGMENT

State of California)
)
County of _____)

On _____ before me, _____,
Date Name, Notary Public

personally appeared _____,
Name, Title of Officer

personally known to me - OR - proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to within the instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

Witness my hand and official seal.

Signature of Notary

SECTION 00490 CONTRACTOR SAFETY OPERATIONS REQUIREMENTS

(To be submitted with Contractor’s Safety Program prior to commencing work)

PART A - Safety Programs

Please indicate below whether your firm has the following written safety programs. If any of the programs listed do not apply to your operations or this project, please make note of this in the “Comments” column. Include any information that you think would be helpful to us in making this assessment. Those programs that are indicated as mandatory must be available for review before commencing work on this Project. Other safety programs may be requested if it is later determined that they are applicable to the Project, and as such, must be made available for review upon request, at no additional charge to the City.

Program		Written Program		Program meets Cal/OSHA Criteria		Sub will Provide	Project Employees Trained		Training Documented		Comments
		Mandatory	Name	Yes	No		Yes	No	Yes	No	
YES	Injury and Illness Prevention										
YES	Hazard Communication										
YES	Confined Space Operations										
	Respiratory Protection										
YES	Emergency Response										
YES	Hearing Conservation										
YES	Lockout/Tagout										
YES	New Employee Orientation										
YES	Excavation Safety										
YES	Code of Safe Practices										
YES	Personal Protective Equipment (PPE)										
YES	Drugs/Alcohol										
YES	Traffic Control Safety										
YES	Fall Prevention Plan ¹										

¹ If conventional fall protection measures cannot be used.

PART B - Safety Equipment

Identify what safety equipment will be available and used for this Project.

Type	Description / Comments
[] Gas Detectors	
[] Ventilation Equipment	
[] Approved Harnesses and Lanyards	
[] Mechanical Hoists	
[] Fire Extinguishers	
[] First Aid Kits	
[] Respirators	
[] Hard Hats	
[] Hearing Protection	
[] Safety Goggles	
[] Steel Toed Footwear	
[] Hand Protection	
[] Fall Protection	
[] Confined Space Rescue Equipment	
[] Life Jackets	
[] Life Rings	
[]	

PART C - Specialized Training and Certification

Identify the areas of specialized training or certification that will have been completed by employees who will be assigned to this Project. Be prepared to provide documentation as requested.

<input type="checkbox"/>	CPR / First Aid	<input type="checkbox"/>	Fork Lift Operation
<input type="checkbox"/>	Cranes / Hoists Operation	<input type="checkbox"/>	Heavy Equipment Operation
<input type="checkbox"/>	Powder-Actuated Tools Use	<input type="checkbox"/>	Confined Space Operations and Rescue
<input type="checkbox"/>	Respirators	<input type="checkbox"/>	Trenching and Shoring Competent Person
	<input type="checkbox"/> Air-Supplying	<input type="checkbox"/>	Welding
	<input type="checkbox"/> Air-Purifying	<input type="checkbox"/>	Asbestos Abatement
<input type="checkbox"/>	Scaffolding	<input type="checkbox"/>	Flagging
<input type="checkbox"/>	Traffic Control		

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PART D – Job site Safety Practices

1. Name of person who will have responsibility for job site safety?

2. Who will be responsible for conducting and documenting accident investigations?

Does your company perform near-miss investigations? _____

Please provide sample copy of investigation forms.

3. How often are job site safety audits or inspections performed, _____

and by whom? _____

4. Does the person who is responsible for job site safety have authority to take immediate action to correct unsafe conditions of work practices? _____

5. Who will be designated the competent person for excavation safety on the project?

Provide substantiation of training for the competent person.

6. How often are job site tailgate or toolbox safety meetings held? _____

7. Briefly describe how you will ensure that workers comply with safety programs and Cal/OSHA requirements? _____

8. Please list any Cal/OSHA citations and penalties you have received in the last three years.

9. Have there been any on-the-job fatalities at any job site managed by the Contractor in the last five years? _____ If yes, please explain.

10. Does your company have a safety incentive program? _____

If yes, please explain. _____

PART E – Evaluation Worksheet

(FOR USE BY THE CITY ONLY)

Item	Mandatory Program	Contractor has Written Program	Contractor States Program Meets Cal/OSHA Criteria	Comments
Part A: Safety Programs				
Part B: Safety Equipment				
Part C: Training & Certification				
Part D: Job Site Safety Practice				
Responsible Person Named				
Accident Investigations				
Worksite Safety Inspections				
Competent Person				
Safety Meetings				
Compliance w/ Safety Requirements				
Cal/OSHA Citations/Penalties				
Fatalities				
Safety Incentives				

END OF SECTION*

SECTION 00500 AGREEMENT

**AGREEMENT FOR THE CONSTRUCTION OF
2013 Street Improvement Project**

THIS AGREEMENT, made and concluded, in triplicate, this ___ day of ____, 2013, between the CITY OF SAUSALITO ("City") and _____ ("Contractor").

The City and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

WITNESSETH:

1. That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the City, and under the conditions expressed in the two bonds, bearing even date with these presents, Contractor shall at his/her own proper cost and expense, to do all the Work and furnish all the materials necessary to construct and complete in good workmanlike and substantial manner the project entitled: 2011 Street improvement Project in strict conformity with the Contract Documents prepared therefore, which said Contract Documents are hereby specially referred to and by said reference made a part hereof.
2. Contractor hereby agrees to complete the Work in its entirety in accordance with the Contract Documents for the sum of _____ (the "Contract Sum") computed in accordance with Contractor's accepted proposal dated _____, which accepted proposal is incorporated herein by reference thereto as if herein fully set forth. Compensation shall be based upon any lump sum bid items plus the unit prices stated in the Bid Schedule times the actual quantities or units of work and materials performed or furnished. The further terms, conditions, and covenants of this Agreement are set forth in the Contract Documents, each of which is by this reference made a part hereof. Payments are to be made to the Contractor in accordance with the provisions of the Contract Documents and the Technical Specifications in legally executed and regularly issued warrants of the City, drawn on the appropriate fund or funds as required by law and order of the City.
3. City hereby promises and agrees with the Contractor to employ, and does hereby employ, the Contractor to provide the materials and to do the Work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner and upon the conditions above set forth; and the parties for themselves, their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of the covenants herein contained.
4. The Contractor and any subcontractor performing or contracting any work shall comply with all applicable provisions of the California Labor Code for all workers, laborers and mechanics of all crafts, classifications or types, including, but necessarily limited to the following:
 - (a) The Contractor shall comply with all applicable provisions of Sections 1810 to 1815, inclusive, of the California Labor Code relating to working hours. The Contractor shall, as a

penalty to the City, forfeit the sum of twenty-five dollars (\$25) for each worker employed in the execution of the Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one calendar week, unless such worker receives compensation for all hours worked in excess of eight (8) hours at not less than 1-1/2 times the basic rate of pay.

- (b) Pursuant to the provision of California Labor Code, Section 1770 et seq., the Contractor and any subcontractor under him shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Pursuant to the provisions of California Labor Code Section 1773.2, the Contractor is hereby advised that copies of the prevailing rate of per diem wages and a general prevailing rate for holidays, Saturdays and Sundays and overtime work in the locality in which the work is to be performed for each craft, classification, or type of worker required to execute the Contract, are on file in the office of the City, which copies shall be made available to any interested party on request. The Contractor shall post a copy of said prevailing rate of per diem wages at each job site.
- (c) As required by Section 1773.1 of the California Labor Code, the Contractor shall pay travel and subsistence payments to each worker needed to execute the Work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with this Section.
- (d) To establish such travel and subsistence payments, the representative of any craft, classification, or type of workman needed to execute the contracts shall file with the Department of Industrial Relations fully executed copies of collective bargaining agreements for the particular craft, classification or type of work involved. Such agreements shall be filed within ten (10) days after their execution and thereafter shall establish such travel and subsistence payments whenever filed thirty (30) days prior to the call for bids.
- (e) The Contractor shall comply with the provisions of Section 1775 of the California Labor Code and shall, as a penalty to the City, forfeit up to fifty dollars (\$50) for each calendar day, or portion thereof, for each worker paid less than the prevailing rate of per diem wages for each craft, classification, or type of worker needed to execute the Contract. The Contractor shall pay each worker an amount equal to the difference between the prevailing wage rates and the amount paid worker for each calendar day or portion thereof for which a worker was paid less than the prevailing wage rate. Contractor is required to pay all applicable penalties and back wages in the event of violation of prevailing wage law, and Contractor and any subcontractor shall fully comply with California Labor Code Section 1775, which is incorporated by this reference as though fully set forth herein.
- (f) As required under the provisions of Section 1776 of the California Labor Code, Contractor and each subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, and 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.

Said payroll shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

- (1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
- (2) A certified copy of all payroll records enumerated in Paragraph 4(f), herein, shall be made available for inspection or furnished upon request to the City, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.
- (3) A certified copy of all payroll records enumerated in Paragraph 4(f), herein, shall be made available upon request by the public for inspection or for copies thereof; provided, however, that a request by the public shall be made through the City, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to Paragraph 4(e) herein, the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the Contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal offices of the Contractor.

The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division.

Each Contractor shall file a certified copy of the records, enumerated in Paragraph 4(f) with the entity that requested the records within ten (10) days after receipt of a written request. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the City, 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 awarded the Contract or performing the Contract shall not be marked or obliterated. The Contractor shall inform the City of the location of the records enumerated under Paragraph 4(f) including the street address, city and county, and shall, within five (5) working days, provide a notice of change of location and address. The Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this Paragraph 4(f). In the event that the Contractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or the City, forfeit \$25.00 dollars for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. Responsibility for compliance with Paragraph 4(f) lies with the Contractor.

- (g) The Contractor and any subcontractors shall, when they employ any person in any apprenticeable craft or trade, apply to the joint apprenticeship committee administering

the apprenticeship standards of the craft or trade in the area of the construction site for a certificate approving the Contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected; and shall comply with all other requirements of Section 1777.5 of the California Labor Code. The responsibility of compliance with California Labor Code Section 1777.5 during the performance of this Contract rests with the Contractor. Pursuant to California Labor Code Section 1777.7, in the event the Contractor willfully fails to comply with the provisions of California Labor Code Section 1777.5, the Contractor shall be denied the right to bid on any public works contract for up to three (3) years from the date noncompliance is determined and be assessed civil penalties.

- (h) In accordance with the provisions of Article 5, Chapter 1, Part 7, Division 2 (commencing with Section 1860), and Chapter 4, Part 1, Division 4 (commencing with Section 3700) of the California Labor Code, the Contractor is required to secure the payment of compensation to its employees and for that purpose obtain and keep in effect adequate Workers' Compensation Insurance. If the Contractor, in the sole discretion of the City satisfies the City of the responsibility and capacity under the applicable Workers' Compensation Laws, if any, to act as self-insurer, the Contractor may so act, and in such case, the insurance required by this paragraph need not be provided.

The Contractor is advised of the provisions of Section 3700 of the California Labor Code, which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code and shall comply with such provisions and have Employer's Liability limits of \$1,000,000 per accident before commencing the performance of the Work of this Contract. Contractor and its subcontractors shall comply with the provisions of Section 3700 of the Labor Code, including Longshoremens' and Harbor Workers' Compensation and Jones Act coverages, if applicable, before commencing the performance of the work of this contract.

Contractor shall not commence work until the Contractor submits written evidence that it has obtained full Workers' Compensation Insurance coverage for all persons whom it employs or may employ in carrying out the Work under this Contract. This insurance shall be in accordance with the requirements of the most current and applicable state Workers' Compensation Insurance Laws. In accordance with the provisions of Section 1861 of the California Labor Code, the Contractor in signing this agreement certifies to the City as true the following statement: "I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the Work of this Contract."

A subcontractor is not allowed to commence work on the project until verification of Workers' Compensation Insurance coverage has been obtained and verified by the Contractor and submitted to the Construction Manager for the City's review and records.

- (i) In accordance with the provisions of Section 1727 of the California Labor Code, the City, before making payment to the Contractor of money due under a contract for public works, shall withhold and retain therefrom all wages and penalties which have been forfeited pursuant to any stipulation in the Contract, and the terms of Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with Section 1720). But no sum shall

be withheld, retained or forfeited, except from the final payment, without a full investigation by either the Division of Labor Standards Enforcement or by the City.

5. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this Agreement and the bid proposal of Contractor, then this Agreement shall control, and nothing herein contained shall be considered as an acceptance of the terms of Contractor's proposal conflicting herewith.
6. The Contractor agrees to provide and maintain insurance coverage, and to indemnify and save harmless the parties named and in the manner set forth in Section 00800-Article 2, **INDEMNITY AND INSURANCE**, of the Supplementary General Conditions of the Specifications.

The duty of Contractor to indemnify and save harmless, as set forth herein, shall include a duty to defend as set forth in Section 2778 of the California Civil Code; provided, however, that nothing herein shall be construed to require Contractor to indemnify against any responsibility or liability in contravention of Section 2782 of the California Civil Code.

7. The Contractor shall diligently prosecute the Work so that it shall be substantially completed within the time specified in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**.
8. Except as otherwise may be provided herein, Contractor hereby expressly guarantees for one (1) full year from the date of the Substantial Completion of the Work under this Agreement and acceptance thereof by the City, to repair or replace any part of the Work performed hereunder which constitutes a defect resulting from the use of inferior or defective materials, equipment or workmanship. If, within said period, any repairs or replacements in connection with the Work are, in the opinion of the City, rendered necessary as the result of the use of inferior or defective materials, equipment or workmanship, Contractor agrees, upon receipt of notice from the City, and without expense to the City, to promptly, and in no event more than ten (10) days, after receipt of written notice from City repair or replace such material or workmanship and/or correct any and all defects therein. If Contractor, after such notice, fails to proceed promptly to comply with the terms of this guarantee, the City may perform the work necessary to effectuate such correction and recover the cost thereof from the Contractor or its sureties.

In special circumstances where a particular item of work or equipment is placed in continuous service before substantial completion of the Work, the correction period for that item may start to run from an earlier date. This date shall be agreed upon by the Contractor and the City on or before the item is placed in continuous service.

Any and all other special guarantees which may be applicable to definite parts of the Work under this Agreement shall be considered as an additional guarantee and shall not reduce or limit the guarantee as provided by Contractor pursuant to this paragraph during the first year of the life of such guarantee.

9. The Contractor shall provide, on the execution of this Agreement, a good and sufficient corporate surety bond in the penal sum of one hundred percent (100%) of amount bid, which bond shall be on the form provided by the City in Section 00610, **BOND OF FAITHFUL PERFORMANCE**, and be conditioned upon the faithful performance of all Work required to be performed by the Contractor under this Agreement. Said bond shall be liable for any and all penalties and obligations which may be incurred by Contractor under this Agreement. The surety bond shall be issued by a corporate surety authorized to conduct business in California.

At its discretion, the City may request that a certified copy of the certificate of authority of the insurer issued by the Insurance Commissioner of the State of California be submitted by the surety to the City. At its discretion, the City may also require the insurer to provide copies of its most recent annual statement and quarterly statement filed with the Department of Insurance pursuant to Article 10 (commencing with Section 900) of Chapter 1 of Part 2 of Division 1 of the Insurance Code.

10. In addition to the bond required under Paragraph 9, hereof, Contractor shall furnish a good and sufficient corporate surety bond in the penal sum of one hundred percent (100%) of amount of bid, which bond shall be on the form provided by the City in Section 00620, **PAYMENT BOND**, and conform strictly with the provisions of Chapter 7, Title 15, Part 4, Division 3, of the Civil Code of the State of California, and all amendments thereto. The corporate surety bond shall be issued by a corporate surety authorized to conduct business in California. At its discretion, the City may request that a certified copy of the certificate of authority of the insurer issued by the Insurance Commissioner of the State of California be submitted by the surety to the City. At its discretion, the City may also require the insurer to provide copies of its most recent annual statement and quarterly statement filed with the Department of Insurance pursuant to Article 10 (commencing with Section 900) of Chapter 1 of Part 2 of Division 1 of the Insurance Code.
11. The Contractor may substitute securities for the amounts retained by the City to ensure performance of the Work in accordance with the provisions of Section 22300 of the Public Contract Code.
12. The Contractor shall be provided the time period specified in Section 01300-1.03, **MATERIAL AND EQUIPMENT SUBSTITUTIONS**, for submission of data substantiating a request for a substitution of an "or equal" item.
13. As required by Section 6705 of the California Labor Code and in addition thereto, whenever work under the Contract involves the excavation of any trench or trenches five feet or more in depth, the Contractor shall submit in advance of excavations, 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 trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety in Title 8, Subchapter 4, Article 6, California Code of Regulations, the plan shall be prepared by a registered civil or structural engineer employed by the Contractor, and all costs therefore shall be included in the price named in the Contract for completion of the Work as set forth in the Contract Documents. Nothing in this Section shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this Section shall be construed to impose tort liability on the City, the Design Consultant, Construction Manager nor any of their agents, consultants, or employees. The City's review of the Contractor's excavation plan is only for general conformance to the California Construction Safety Orders.

Prior to commencing any excavation, the Contractor shall designate in writing to the Construction Manager the competent person(s) with the authority and responsibilities designated in the Construction Safety Orders.

14. In accordance with Section 7104 of the Public Contract Code, whenever any work involves digging trenches or other excavations that extend deeper than four feet below the surface, the provisions of Section 00700-7.02, **DIFFERING SITE CONDITIONS**, shall apply.
15. In accordance with Section 7103.5 of the Public Contract Code, the Contractor and subcontractors shall conform to the following requirements. 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 City 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 pursuant to this Contract or the subcontract. Such assignment shall be made and become effective at the time the City tenders final payment to the Contractor, without further acknowledgment by the parties.
16. In accordance with Section 4552 of the Government Code, the Contractor shall conform to the following requirements. In submitting a Bid to the City, the Contractor offers and agrees that if the Bid is accepted, it will assign to the City 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 purchase of goods, materials, or services by the Contractor for sale to the City pursuant to the Bid. Such assignment shall be made and become effective at the time the City tenders final payment to the Contractor.
17. Pursuant to Public Contract Code Section 7100, the acceptance by the Contractor of an undisputed payment made under the terms of the Contract shall operate as, and shall be, a release to the City, and their duly authorized agents, from all claim of and/or liability to the Contractor arising by virtue of the Contract related to those amounts. Disputed contract claims in stated amounts may be specifically excluded by the Contractor from the operation of the release.
18. In accordance with California Business and Professions Code Section 7030, the Contractor is required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning the Contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.
19. The acceptance of each payment made to Contractor under this Agreement shall constitute a warranty that all subcontractors, laborers and material suppliers on the Project have been paid for all work, material, labor provisions, provender, equipment, or other supplies and efforts made toward the construction of improvements.
20. **INDEMNIFICATION.** Contractor shall indemnify, defend with counsel acceptable to Owner, and hold harmless to the full extent permitted by law, the City and its officers, officials, employees, agents and volunteers, Construction Manager, Design Consultant and all of their respective agents and employees; (collectively "the Indemnified Parties") in accordance with the requirements of Section 00800-2.01E, **Indemnification**.

21. **SEVERABILITY.** If any term or portion of this Agreement is held to be invalid, illegal, or otherwise enforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.

22. **LICENSE.** Contractor’s attention is directed to Business and Professions Code Sections 7000 et seq. concerning the licensing of contractors. At the time Contractor enters into this Contract and all times Contractor is performing the Work, Contractor shall have a valid license issued by the Contractors State License Board in the classification stated in the Special Provisions. All bidders and subcontractors shall be licensed in accordance with the laws of this State and any contractor or subcontractor not so licensed is subject to penalties imposed by such laws.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS’ STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS IF A COMPLAINT REGARDING A PATENT ACT OR OMISSION IS FILED WITHIN FOUR YEARS OF THE DATE OF THE ALLEGED VIOLATION. A COMPLAINT REGARDING A LATENT ACT OR OMISSION PERTAINING TO STRUCTURAL DEFECTS MUST BE FILED WITHIN 10 YEARS OF THE DATE OF THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS’ STATE LICENSE BOARD, P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement this _____ day of _____, 20_____.

CONTRACTOR

By: _____

Title: _____

THE CITY OF SAUSALITO

By: _____

Adam W. Politzer, City Manager

City of Sausalito, California

APPROVED AS TO FORM:

By: _____

Mary Anne Wagner, Esq.

City Attorney

****END OF SECTION****

SECTION 00610 BOND OF FAITHFUL PERFORMANCE

BOND NO. _____

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City Council of the City of Sausalito (hereinafter referred to as "City") has awarded to _____ (hereinafter referred to as the "Contractor") an agreement (the "Contract") for construction of the 2011 Street improvement Project (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by the Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of the Contract Documents.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the City in the sum of _____, said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify, defend and save harmless the City, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorneys' fees and expert fees, incurred by City in enforcing such obligation.

As a condition precedent to the satisfactory completion of the Project, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1)

year after the acceptance of the work by City, during which time Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the City from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the City's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by the City to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the City's option:

- (1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or
- (2) Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the City, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.
- (3) Permit the City to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the City may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the City, when declaring the Contractor in default, notifies Surety of the City's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Project.

Upon City of Sausalito filing Project Notice of Completion, this bond secures the obligation of the Contractor for a one-year warranty period.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____

Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

SIGNATURES OF THOSE SIGNING FOR SURETY MUST BE NOTARIZED, AND EVIDENCE OF CORPORATE AUTHORITY ATTACHED.

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, \$_____.

(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of Agent or Representative for service of process in California, if different from

above)

(Telephone number of Surety and Agent or of process in California

Representative for

service

****END OF SECTION****

SECTION 00620 PAYMENT BOND

BOND NO. _____

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City Council of the City of Sausalito (hereinafter referred to as "City") has awarded to _____, (hereinafter referred to as the "Contractor") an agreement (the "Contract") for construction of the 2011 Street improvement Project (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by the Contract Documents to furnish a bond to secure payment for all work, labor, materials, equipment or services furnished in connection with the Construction Contract;

NOW, THEREFORE, CONTRACTOR, as principal, and _____ (hereinafter referred to as "Surety"), as surety, are held and firmly bound unto City, as defined herein, in the penal sum of _____ DOLLARS, (\$ _____) lawful money of the United States, for the payment of which sum well and truly to be made as provided in this Payment Bond.

1. **CONTRACTOR** and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to CITY to pay for work, labor, materials, equipment, services, or other items furnished for use and actually used in the performance of the Construction Contract, which is incorporated herein by reference.

2. With respect to **CITY**, this obligation shall be null and void if **CONTRACTOR**:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2 Defends, indemnifies and holds **CITY** harmless from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for work, labor, materials, equipment, services or other items furnished for use in the performance of the Construction Contract, provided **CITY** has promptly notified **CONTRACTOR** and Surety (at the

address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to **CONTRACTOR** and Surety.

3. With respect to Claimants, this obligation shall be null and void if **CONTRACTOR** promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

4.1 Claimants who are employed by or have a direct contract with **CONTRACTOR** have given notice to Surety (at the address described below) and sent a copy, or notice thereof, to **CITY**, stating that a claim is being made under this Payment Bond and, with substantial accuracy, the amount of the claim.

4.2 Claimants who do not have a direct contract with the **CONTRACTOR**:

4.3. Have furnished written notice to **CONTRACTOR** and sent a copy, or notice thereof, to **CITY**, as required by and conforming with Civil Code sections 3252 and 3091; and

4.4. Not having been paid within 30 days of sending the required notice, have sent a written notice to Surety (at the address described below) and sent a copy to the **CITY**, stating that a claim is being made under this Payment Bond and enclosing a copy of the previous written notice furnished to **CONTRACTOR**.

5. When the Claimant has satisfied the conditions of Paragraph 4, Surety shall promptly and at Surety's expense take the following actions:

5.1 Send an answer to the Claimant, with a copy to **CITY**, within 20 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

5.2 Pay or arrange for payment of any undisputed amounts.

6. Surety's total obligation shall not exceed the amount of this Payment Bond, and the amount of this Payment Bond shall be credited for any payments made in good faith by Surety.

7. Amounts owed by **CITY** to **CONTRACTOR** under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under the Performance Bond. By **CONTRACTOR** furnishing and **CITY** accepting this Payment Bond, they agree that all funds earned by **CONTRACTOR** in the performance of the Construction Contract are dedicated to satisfy obligations of

CONTRACTOR and Surety under this Bond, subject to the **CITY'S** priority to use the funds for the completion of the work or the satisfaction of **CITY'S** claims, including liquidated damages, under the Construction Contract.

8. Surety shall not be liable to **CITY**, Claimants or others for obligations of the **CONTRACTOR** that are unrelated to the Construction Contract. **CITY** shall not be liable for payment of any costs or expenses of any Claimants under this Payment Bond, and shall have under this Payment Bond no obligation to make payments to, give notices on behalf of, or otherwise have any obligation to Claimants under this Payment Bond.

9. Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

10. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction. The prevailing party in any such action shall be entitled to recover its attorneys' fees, to be taxed as costs.

11. Notice to Surety, **CITY** or **CONTRACTOR** shall be mailed or delivered to the address shown on the signature page.

12. This Payment Bond has been furnished to comply with Civil Code sections 3247 through 3252. Any provision in this Payment Bond conflicting with those statutory requirements shall be deemed deleted and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Payment Bond shall be construed as a statutory bond and not as a common law bond.

13. Upon request by any person or entity appearing to be a potential beneficiary of this Payment Bond, the Contractor shall promptly furnish a copy of this Payment Bond or shall permit a copy to be made.

14. **DEFINITIONS**

14.1 Claimant: An individual or entity identified in California Civil Code sections 3181 or 3248.

14.2 Construction Contract: The agreement between **CITY** and **CONTRACTOR** identified above, including all Contract Documents and changes thereto.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their 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 the authority of its governing body.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

SIGNATURES OF THOSE SIGNING FOR SURETY MUST BE NOTARIZED, AND EVIDENCE OF CORPORATE AUTHORITY ATTACHED.

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, \$_____.

(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of Agent or Representative for service of process in California, if different from

above)

(Telephone number of Surety and Agent or Representative of process in California

Representative for

service

****END OF SECTION****

SECTION 00630 ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

2013 Street Improvement Project

This Escrow Agreement is made and entered into by and between; the City of Sausalito, whose address is 420 Litho Street, Sausalito, CA 94965; hereinafter called "City", and _____.

(Contractor)

whose address is _____ hereinafter called "Contractor", and _____

(Escrow Agent)

whose address is _____

hereinafter called "Escrow Agent."

For the consideration hereinafter set forth, the City, Contractor, and Escrow Agent agree as follows:

1. Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities which meet the requirements set forth in said Section 22300, with Escrow Agent, as a substitute for retention earnings required to be withheld by the City pursuant to the Construction Contract entered into between the City and Contractor for 2013 Street Improvement Project in the amount of _____ DOLLARS, (\$ _____) dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the City shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the City within ten (10) days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the City and Contractor. Securities shall be held in the name of the City, and shall designate the Contractor as the beneficial Owner.
2. The City shall make progress payments to Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.
3. When the City makes payment of retentions earned directly to the Escrow Agent the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this Contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the City pays the Escrow Agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of the City. These expenses and payment terms shall be determined by the City, Contractor, and Escrow Agent.
5. The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the City.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the City to the Escrow Agent that the City consents to the withdrawal of the amount sought to be withdrawn by Contractor.
7. The City shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven (7) days' written notice to the Escrow Agent from the City of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the City.
8. Upon receipt of written notification from the City certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on the written notifications from the City and the Contractor pursuant to Sections (5) to (8), inclusive, of this Agreement, and the City and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.
10. The names of the persons who are authorized to give written notice or to receive written notice on behalf of the City and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On Behalf of the City:

On Behalf of Contractor:

City Manager

Title

Title

Adam W. Politzer

Name

Name

Signature

Signature

420 Litho St., Sausalito, CA 94965

Address

Address

On Behalf of Escrow Agent:

Title

Name

Signature

Address

At the time the Escrow Account is opened, the City and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

City:City of Sausalito

Contractor:

City Manager _____

Title

Title

Adam W. Politzer _____

Name

Name

Signature

Signature

****END OF SECTION****

SECTION 00650 GENERAL LIABILITY ENDORSEMENT (Form A-1)

THE CITY OF SAUSALITO (City)

420 Litho Street
Sausalito, CA 94965

2013 Street Improvement Project

Article 1 – POLICY INFORMATION

1. Insurance Company: _____

Policy Number: _____

2. Policy Term (From) _____ (To) _____

Endorsement Effective Date: _____

3. Named Insured: _____

4. Address of Named Insured: _____

5. Limit of Liability Any One Occurrence / Aggregate

\$ _____

6. Deductible or Self-Insured Retention (Nil unless otherwise specified)

\$ _____

Article 2 – POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto it is agreed as follows:

1. **INSURED.** The City, the Design Consultant, the Construction Manager, City Engineer, and each of their officers, partners, employees, and agents are included as additional insureds with regard to damages and defense of claims arising from: (a) activities performed by or on behalf of the Named Insured, (b) products and completed operations of the Named Insured, or (c) premises owned, leased or used by the Named Insured.
2. **CONTRIBUTION NOT REQUIRED.** As respects: (a) work performed by the Named Insured for or on behalf of the City; or (b) products sold by the Named Insured to the City; or (c) premises leased by the Named Insured from the City, the insurance afforded by this policy shall be primary insurance as respects the City, the Design Consultant and the Construction Manager, and each of their officers, employees, and agents; or stand in an unbroken chain of coverage excess of the Named Insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents shall be excess of this insurance and shall not contribute with it.
3. **SCOPE OF COVERAGE.** The policy: (1) if primary, affords coverage at least as broad as Insurance Services Office Commercial General Liability Coverage (occurrence form CG 0001, Edition 1987); or (2) if excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding Section (1).
4. **SEVERABILITY OF INTEREST.** The insurance afforded by this policy applies separately to each insured who is seeking coverage or against whom a claim is made or a suit is brought, except with respect to the Company's limit of liability.
5. **PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS.** Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents.
6. **CANCELLATION NOTICE.** The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior notice by certified mail return receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this endorsement.

Article 3 – INCIDENT AND CLAIM REPORTING PROCEDURE

Incidents and claims are to be reported to the insurer at:

Attn: _____

(Title) *(Department)*

(Company)

(Street Address)

(Agency)

(State)

(Zip Code)

(Telephone Number)

Article 4 – SIGNATURE OF INSURER OR UNDERWRITER

I, _____ (print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company. By signature below, the surety warrants that if requested by the City, it will furnish a certified copy of the certificate of authority issued by the Insurance Commissioner of the State of California.

Signature of: _____
Insurer or Underwriter

(original signature required on endorsement furnished to the City)

ORGANIZATION: _____ TITLE: _____

ADDRESS: _____ TELEPHONE: () _____

****END OF SECTION****

SECTION 00651 AUTO LIABILITY ENDORSEMENT (Form B-1)

CITY OF SAUSALITO ("City")

420 Litho Street
Sausalito, CA 94965

2013 Street Improvement Project

Article 1 – POLICY INFORMATION

1. Insurance Company: _____

Policy Number: _____

2. Policy Term (From) _____ To) _____

Endorsement Effective Date: _____

3. Named Insured: _____

4. Address of Named Insured: _____

5. Limit of Liability Any One Occurrence / Aggregate:

\$ _____

6. Deductible or Self-Insured Retention (Nil unless otherwise specified)

\$ _____

Article 2 – POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto it is agreed as follows:

- 1. **INSURED.** The City, the Design Consultant, the Construction Manager, City Engineer, and each of their officers, partners, employees, and agents are included as additional insureds with regard to

damages and defense of claims arising from ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired, or borrowed by the Named Insured, regardless of whether liability is attributable to the Named Insured or a combination of the Named Insured and the City, the Design Consultant and the Construction Manager and each of its officers, employees, and agents.

- 2. **CONTRIBUTION NOT REQUIRED.** As respects work performed by the Named Insured for or on behalf of the City, the insurance afforded by this policy shall: (a) be primary insurance as respects the City, the Design Consultant, and the Construction Manager and each of their officers, employees, and agents; or (b) stand in an unbroken chain of coverage excess of the Named Insured's primary coverage. In either event, any other insurance maintained by the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents shall be excess of this insurance and shall not contribute with it.

- 3. **SCOPE OF COVERAGE.** The policy affords coverage to the Named Insured, which is at least as broad as Insurance Services Office form number CA 0001 (Ed. 1/87) covering automobile liability, Code 1 ("any auto").

- 4. **SEVERABILITY OF INTEREST.** The insurance afforded by this policy applies separately to each insured who is seeking coverage or against whom a claim is made or a suit is brought, except with respect to the Company's limit of liability.

- 5. **PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS.** Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents.

- 6. **CANCELLATION NOTICE.** The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior notice by Certified Mail Return Receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this endorsement.

Article 3 – INCIDENT AND CLAIM REPORTING PROCEDURE

Incidents and claims are to be reported to the insurer at:

Attn: _____
(Title) *(Department)*

(Company)

(Street Address)

(Agency) *(State)* *(Zip Code)*

(Telephone Number)

Article 4 – SIGNATURE OF INSURER OR UNDERWRITER

I, _____ (print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company. By signature below, the surety warrants that if requested by the City, it will furnish a certified copy of the certificate of authority issued by the Insurance Commissioner of the State of California.

Signature of: _____
Insurer or Underwriter

(original signature required on endorsement furnished to the City)

ORGANIZATION: _____

TITLE: _____

ADDRESS: _____

TELEPHONE: () _____

****END OF SECTION****

SECTION 00700 GENERAL CONDITIONS

1 ARTICLE 1 - GENERAL

The work embraced herein shall be done in accordance with the 2010 Standard Specifications and the 2010 Standard Plans of the State of California, Department of Transportation insofar as the same may apply and in accordance with the following special provisions.

In case of a conflict between the Standard Specifications and these special provisions, the special provisions shall take precedence over and be used in lieu of such conflicting portions, as specified in Section 1.07, "Order of Precedence".

1.01 CONTRACT AGREEMENT

A Bidder to whom award is made shall execute a written Agreement and required supplementary documents and submit them to the City within ten (10) days after the Notice of Award has been received by the Bidder at the address given in **BID FORM**. The Agreement shall be made in the form adopted by the City and incorporated in Section 00500, **AGREEMENT**.

If the lowest responsive, responsible Bidder to whom award is made fails to enter into the Contract, as herein provided, the Bidder's Security will become the property of the City, and an award may be made to the next lowest responsive, responsible Bidder, and such Bidder shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made. A corporation, partnership, or joint venture to which an award is made will be required, before the Agreement is finally executed, to furnish evidence of its corporate existence and evidence that the officer signing the Agreement and bonds for the corporation is duly authorized to do so in the form as stated in Section 00100-Article 3, **BIDDER'S SIGNATURE AND AUTHORITY**.

In the event the Contractor is a joint venture of two or more contractors, the grants, covenants, provisos and claims, rights, power, privileges and liabilities of the Contract shall be construed and held to be several as well as joint. Any notice, order, direct request or any communication required to be or that may be given by the City or the Construction Manager to the Contractor under this Contract, shall be well and sufficiently given to all persons being the Contractor if given to any one or more of such persons. Any notice, request or other communication given by any one of such persons to the City or the Construction Manager under this Contract shall be deemed to have been given by and shall bind all persons being the Contractor.

If any part of the Work to be done under this Contract is subcontracted, the subcontract shall be in writing and shall provide that all work to be performed thereunder shall be performed in accordance with the terms of the Agreement. The subcontracting of any or all of the work to be done will in no way relieve the Contractor of any part of its responsibility under the Contract. Certified copies of subcontract agreements will be provided by the Contractor to the City upon request.

Equipment supplied under this Contract shall be furnished in accordance with a written agreement, and such agreement shall provide that any equipment supply shall be performed in accordance with the terms of the Contract Documents. Certified copies of agreements for equipment supply will be provided by the Contractor to the City upon request.

The Contractor shall not assign, transfer, convey, or otherwise dispose of the Contract, or its right, title, or interest therein, or its power to execute such Contract, to any other person, firm, or corporation without previous consent in writing of the City.

1.02 WRITTEN NOTICE AND SERVICE THEREOF

Any notice to any party relative to any part of this Contract shall be in writing and considered delivered and the service thereof completed as follows:

when said notice is posted deposited in the U.S. Mail, postage prepaid, to said party at its last given address, notice will be effective two business days after mailing;

or if delivered in person to the said party or its authorized representative of the Work, notice will be effective upon delivery;

or if sent by facsimile to the said party or its authorized representative at a fax number provided in connection with the Project, notice will be effective upon receipt.

1.03 RIGHTS OF ACTION

No right of action shall accrue upon or by reason of this Agreement to or for the use or benefit of anyone other than the parties to this Agreement. The parties to this Agreement are the Contractor and the City.

1.04 PLANS AND SPECIFICATIONS

The Contract Documents are complementary; what is called for by one is as binding as if called for by all. It is the intent of the Drawings and Specifications to describe a functionally complete and operable Project (and all parts thereof) to be constructed in accordance with the requirements of the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the requirements of the Contract Documents or from prevailing custom or trade usage as being required to produce this intended result will be furnished and performed whether or not specifically called for. When words or phrases that have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. The intent of the Drawings specifically includes the intent to depict construction that complies with all applicable laws, codes and standards. Subject to applicable law, including but not limited to California Public Contract Code Section 4100 et seq., and the terms of this Contract governing subcontracting, the Divisions and Sections of the Specifications and identifications of any Drawings shall not control Contractor in dividing the Work among subcontractors or suppliers or delineating the work to be performed by any specific trade.

Reasonably implied parts of the Work shall be performed as "incidental work" even though absent from the Drawings and Specifications. "Incidental" work shall be performed by Contractor without extra cost to the City. Incidental work includes any work not shown on Drawings nor described in the Specifications, which is necessary or required to make each installation satisfactory, legally operable, functional, consistent with the intent of the Drawings and Specifications or the requirements of the Contract Documents. Incidental work shall be treated as if fully described in Specifications and shown on Drawings, and expense thereof shall be included in the Bid Price. Incidental work includes, but is not limited to, tasks required to be performed under Division 1 **GENERAL REQUIREMENTS** of the Specifications.

Upon Notice to Proceed, the Contractor may obtain from the City, free of charge, two (2) copies of the conformed Plans (half-size) and Specifications. The Contractor may also obtain from the City, free of charge, two (2) sets of full-size prints of the Plans. Additional sets of the Plans and Specifications may be procured at the cost of printing and binding. The Owner will also provide one electronic copy of the conformed Plans and Specifications upon receipt of an executed release from the Contractor. The Owner will furnish the release form at the Contractor's request.

Both the Plans and Specifications will be conformed by incorporating all addenda which may have been issued during the bid period to the original bid documents. These "Issued for Construction" documents will be provided no later than the date of the Notice to Proceed. The "Issued for Construction" documents will be produced for the convenience and efficiency of all parties involved with construction. In the event of a discrepancy or failure to include a specific item of any addendum, the addendum as issued during the bid period shall take precedence over the "Issued for Construction" documents.

The Contractor shall keep on the work site a copy of the Plans and Specifications and shall at all times give the Construction Manager access thereto. Any Drawings included in the Specifications shall be regarded as part thereof and of the Contract. Anything mentioned in these Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in these Specifications, shall be of like effect as though shown or mentioned in both. The Construction Manager will furnish from time to time such drawings, plans, profiles, and information, as it may consider appropriate for the Contractor's guidance. Unless otherwise provided in the Contract Documents, it shall be the duty of the Contractor to see that all provisions are complied with in detail irrespective of the inspections given the work during its progress by the authorized official or its representatives. Any failure on the part of the Contractor to observe the Contract Documents will be sufficient cause for the rejection of the work at any time before its acceptance.

Wherever reference specifications are referred to in these Specifications without designation of year, the reference is to the current or revised specification effective at the time of the City receiving bids, unless otherwise referenced in Section 01060, **REGULATORY REQUIREMENTS AND PERMITS**.

1.05 APPLICABILITY OF ALL PARAGRAPHS OF SPECIFICATIONS

The Technical Specifications are presented in paragraphs for convenience. However, this presentation does not necessarily delineate trades or limits of responsibility. All paragraphs of the Plans and Specifications are interdependent and applicable to the Project as a whole.

The Specifications and all notes on the Drawings are directed to the Contractor and all Work shall be performed by the Contractor even though phrases such as "the Contractor shall" or "shall be done by the Contractor" are omitted. Where terms such as "approved," "acceptable," "favorably reviewed," "review," "selected," "directed," "equivalent," "equal," or "satisfactory" are used, it shall mean by or to the Construction Manager and/or Design Consultant.

1.06 CONTRACT INTERPRETATION BY THE CONSTRUCTION MANAGER

Any discrepancies found between the Contract Documents and site conditions or any inconsistencies or ambiguities in the Contract Documents shall be immediately reported, in writing, to the Construction Manager. Questions regarding the meaning and intent of the Contract Documents shall be referred in writing by the Contractor to the Construction Manager with a Request for Information. The Construction Manager shall respond to the Contractor in writing with a decision within fifteen (15) days of receipt of the request, or if it is necessary to extend this period, the Construction Manager shall notify the Contractor in writing as to when a decision will be provided.

Work done by the Contractor after its discovery of such discrepancies, inconsistencies or ambiguities without such notice and prior to response from the Construction Manager shall be done at the Contractor's risk.

1.07 ORDER OF PRECEDENCE

In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

1. Addenda, Supplemental Agreements and Change Orders, the one dated more recently having precedence over another dated earlier.
2. Agreement (Section 00500)
3. Permits
4. General Requirements (Sections 01000-01999)
5. Supplementary General Conditions (Section 00800)
6. Instructions to Bidders (Section 00100)
7. General Conditions (Section 00700)
8. Project Plans
9. Technical Specifications (Section 00900 and all others following)
10. Typical Details
11. Reference/Standard Specifications (including Revisions to the Standard Specifications)
12. Reference/Standard Plans

Figure dimensions on Drawings shall govern over scaled dimensions, and detailed Drawings shall govern over general or standard Drawings.

1.08 BONDS

The successful Bidder shall, at the time of signing the Agreement, furnish the Bond of Faithful Performance (Section 00610) and the Payment Bond (Section 00620) executed by an admitted surety authorized to conduct business in California and be made payable to the "City of Sausalito."

The Payment Bond shall be in amount equal to one hundred percent (100%) of the Contract Price and shall be for payment of just claims for materials, equipment, labor and subcontractors employed by the Contractor thereon.

The Bond of Faithful Performance shall be in an amount equal to one hundred (100) percent of the Contract Price and shall be for the faithful performance of the Contract, and for the fulfillment of such other requirements as may be provided by Law. The performance bond shall remain in effect to guarantee the repair and replacement of defective equipment, materials, and workmanship, and payment of damages sustained by the City on account of such defects, discovered within one (1) year after final acceptance by the City, for the Work performed under the Contract which, shall remain in effect for a period of one (1) year, to guarantee the repair and replacement, and payments for damages.

Attorneys-in-fact, who sign bid bonds or contract bonds, must file with each bond a notarized and effectively dated copy of their power of attorney as required on bond forms supplied by the City for Contractor use in Sections 00610 and 00620.

The surety company shall familiarize itself with all of the conditions and provisions of this Contract, and it waives the right of special notification of any change or modification of this Contract or of extension of time, or of decreased or increased work, or of the cancellation of the Contract, or of any other act or acts by the City or its authorized agents under the terms of this Contract; and failure to so notify the aforesaid surety companies of changes shall not relieve the surety companies of their obligations under this Contract.

1.09 PENALTY FOR COLLUSION

If, at any time, it is found that the person, firm, or corporation to whom the Contract has been awarded has, in presenting any Bid or Bids, colluded with any other party or parties, then the Contract may at the City's sole election be declared null and void, and the Contractor and its sureties shall be liable for loss or damage which the City may suffer thereby, and the City may advertise for new Bids.

1.10 RIGHTS AND REMEDIES

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.

No action or failure to act by the City, the Design Consultant, or the Construction Manager shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

2 ARTICLE 2 - CONTRACT ADMINISTRATION

2.01 ADMINISTRATION OF THE CONTRACT

The City's Representative, the Construction Manager, and the Design Consultant will provide administration of the Contract as hereinafter described. These parties are designated in Section 00800-1.05, **CONTRACT ADMINISTRATION**. If the status of any of the above parties should change, the City will provide written notice to the Contractor of such change.

In case of the termination of the employment of the Design Consultant or the Construction Manager, the City shall appoint a Design Consultant or a Construction Manager whose status under the Contract Documents shall be that of the former Design Consultant or Construction Manager, respectively.

2.02 CITY'S REPRESENTATIVE

- A. General -The City's Representative has the authority to act on behalf of the City on change orders, progress payments, Contract decisions, acceptability of the Contractor's work, and early possession.
- B. Change Orders - The City's Representative has the authority to accept or reject Change Orders and cost proposals submitted by the Contractor or as recommended by the Construction Manager to the extent that budget for such costs has been approved by the City Council. Any Change Order or cost proposal that, taking into account the total of the Contract Price and the cost of all approved Change Orders and other costs, will exceed the budget approved by the City Council, shall require subsequent City Council approval before it can be authorized.
- C. Progress Payments - The City's Representative has the authority to accept or reject requests for progress payments which have been submitted by the Contractor and recommended by the Construction Manager.
- D. Contract Decisions - Should the Contractor disagree with the Construction Manager's decision with respect to the Contract, the Contractor may appeal to the City's Representative in accordance with the provisions of the Contract.
- E. Acceptability of Work - The City's Representative has the authority to make the final determination of the acceptability of the Work. The City's Representative also has the authority to accept or reject the Design Consultant's recommendations regarding retention of defective work as provided.

2.03 CONSTRUCTION MANAGER

A. General - The Construction Manager is a representative of the City employed to act as advisor and consultant to the City in construction matters related to the Contract. The term Construction Manager may include more than one individual to perform Contract administration and construction observation. Hereinafter, the term Construction Manager includes any and all designated representatives working under the direction of the Construction Manager.

All instructions to the Contractor and all communications from the Contractor to the City or the Design Consultant shall be forwarded through the Construction Manager. The Construction Manager will have authority to act on behalf of the City only to the extent provided in the Contract Documents. The City has delegated its authority to the Construction Manager to make initial decisions regarding questions which may arise as to the quality or acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work under the Contract. The Construction Manager shall interpret the intent and meaning of the Contract and shall make initial decisions with respect to the Contractor's fulfillment of the Contract and the Contractor's entitlement to compensation. The Contractor shall look initially to the Construction Manager in matters relating to the Contract.

The Construction Manager's authority to act under Section 00700-2.01, **ADMINISTRATION OF THE CONTRACT**, and any decision made by it in good faith either to exercise or not to exercise such authority, shall not be interpreted or construed as control or responsibility of any of the work performed under this Contract.

B. Representative - The Construction Manager will observe the progress, quality, and quantity of the Work to determine, in general, if the Work is proceeding in accordance with the provisions of the Contract Documents. The Construction Manager shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work.

In accordance with the provisions detailed elsewhere in these General Conditions, the Construction Manager will make decisions relative to all matters of interpretation or execution of the Contract Documents.

C. Observation and Inspections of Construction - The Construction Manager shall observe the construction and shall have the authority to reject work and materials which do not conform to the Contract Documents, and to require special inspection or testing.

Observation and inspection by an inspector is not an authorization to revoke, alter, or waive any requirements of the Specifications. Observation and inspection is the authorization to call the attention of the Contractor to any failure of the Work, materials or workmanship to conform to the Contract Documents. The inspector shall have this authority including the ability to reject materials or, in any emergency, suspend the Work. The Contractor may appeal any such issue which it disagrees with to the Construction Manager for decision. If the decision of the Construction Manager is not satisfactory to the Contractor, the Contractor may appeal such decision to the City's Representative.

D. Acceptability of the Work - The Construction Manager has the authority to make a recommendation as to the acceptability of the Work.

E. Change Orders - The Construction Manager has the authority to initiate Change Orders; to reject Change Orders proposed by the Contractor or Design Consultant; to negotiate and recommend acceptance of Change Orders; or to order minor changes in the Work at no cost to the City that do not affect the schedule or quality of the Work..

F. Construction Schedule - The Construction Manager has the authority to review and recommend acceptance of the Progress Schedule submitted by the Contractor at the start of the Work and subsequent significant revisions for conformance to the specified sequence of work and logic.

G. Progress Payments - The Construction Manager has the authority to recommend acceptance or rejection of requests for progress payments which have been submitted by the Contractor.

H. Final Payment - The Construction Manager, with the assistance of the Design Consultant, will conduct inspections to determine the dates of Substantial Completion of the Work and final completion of the Work, and will receive and forward to the City, for the City's review, written warranties, and related documents required by the Contract and assembled by the Contractor.

2.04 DESIGN CONSULTANT

A. General - The Design Consultant will have the authority to act on behalf of the City only to the extent provided in the Contract Documents.

B. Interpretations - The Design Consultant has the authority to be the initial interpreter of the technical requirements of the Contract Documents. Either party to the Contract may make written request to the Construction Manager for interpretations necessary for the proper execution or progress of the Work. The Construction Manager shall refer such written requests to the Design Consultant, who will render such interpretations. Where the Contractor has requested an interpretation from the Construction Manager, or been notified by the Construction Manager that such interpretation has been requested by the City, any work done before receipt of such interpretations, if not in accordance with same, shall be removed and replaced or adjusted as directed by the Construction Manager without additional expense to the City.

C. Acceptability of the Work - The Design Consultant has the authority to make a recommendation as to the acceptability of the Work. The Design Consultant has the authority to recommend acceptance of defective work.

D. Submittal - The Design Consultant shall receive, through the Construction Manager, shop drawings, product data and samples for review in accordance with 01300, **SUBMITTALS**.

The Design Consultant has the authority to review and take other appropriate action upon the Contractor's submittal such as shop drawings, product data and samples, but only for conformance with the design concept of the Work and the information given in the Contract Documents.

3 ARTICLE 3 - CITY

3.01 GENERAL

The City, acting through the City's Representative or the Construction Manager, shall have the authority to act as the sole judge of the Work and materials with respect to both quantity and quality as set forth in the Contract.

3.02 ATTENTION TO WORK

The City's, Construction Manager's and Design Consultant's representatives are designated in Section 00800-1.05, **CONTRACT ADMINISTRATION**. The Construction Manager's designated representative will normally be available at the site of the Work. An alternate representative will be designated when the designated Construction Manager's representative is not available at the site of the Work.

3.03 OBSERVATION AND INSPECTION

In addition to the Construction Manager's designated representative, the City may provide one or more inspectors to the Construction Manager to observe the work and with the same authority as provided for in Section 00700-2.03C, **OBSERVATION AND INSPECTIONS OF CONSTRUCTION**.

Separate and independent from the observations and inspections above, the project may be inspected by Building Officials for code compliance. Such inspectors shall have the authority provided to them by local jurisdiction.

3.04 CITY'S RIGHT TO USE OR OCCUPY

The City reserves the right, prior to Substantial Completion, to occupy, or use, any completed part or parts of the Work, providing these areas have been approved for occupancy by the City. The exercise of this right shall in no way constitute an acceptance of such parts, or any part of the Work, nor shall it in anyway affect the dates and times when progress payments shall become due from the City to the Contractor or in any way prejudice the City's rights in the Contract, or any bonds guaranteeing the same. The Contract shall be deemed completed only when all the Work contracted has been duly and properly performed and accepted by the City.

Prior to such occupancy or use, the City and Contractor shall agree in writing regarding the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents.

In exercising the right to occupy or use completed parts of the Work prior to the Substantial Completion thereof, the City shall not make any use which will materially increase the cost to the Contractor, without increasing the Contract Price, nor materially delay the completion of the Contract, without extending the time for completion.

The part or parts of the Work, if any, which the City anticipates the use or occupancy of prior to Substantial Completion are listed below:

- None

Failure to include a part of the Work in the above referenced section, shall not limit the City's right to use or occupy parts of the Work not listed.

3.05 CITY'S RIGHT TO CARRY OUT THE WORK

If the Contractor should neglect to prosecute the Work properly or fail to perform any provision of the Contract, and fails within five days after receipt of written notice from the City to commence and continue correction of such neglect or deficiency with diligence and promptness, the City may, and without prejudice to any other remedy, make good such default, neglect or failure.

The City also reserves the right to perform any portion of the Work due to an emergency threatening the safety of the Work, public, City, and any property or equipment.

In either case, a Change Order shall be issued unilaterally deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies and/or for performing such work, including compensation for the Design Consultant's, the Construction Manager's, and the City's additional services made necessary by such default, neglect, failure, or emergency.

3.06 CITY'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

The City reserves the right to perform work related to the Project with the City's own forces, and to award separate Contracts in connection with the Project or other work on the Site. If the Contractor

claims that delay, damage, or additional cost is involved because of such action by the City, the Contractor shall make such claim as provided elsewhere in the Contract Documents.

When separate Contracts are awarded for different portions of the Project or other work on the Site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Agreement.

The City will provide for the coordination of the work of the City's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate therewith as provided in Section 00700-4.10, **COOPERATION WITH OTHER CONTRACTORS**.

3.07 RESPONSIBILITY OF THE CITY

The City shall not be held responsible for the care or protection of any material or parts of the Work prior to the final Acceptance, except as expressly provided in these Specifications.

4 ARTICLE 4 - CONTRACTOR

4.01 STATUS OF CONTRACTOR AND SUBCONTRACTORS

A. It is stipulated and agreed that the Contractor shall be an independent contractor in the performance of this Contract and shall have complete charge of all persons engaged in performance of the Work. The Contractor shall perform the Work in accordance with its own methods, subject to compliance with the requirements of the Contract.

B. Subcontractors will not be recognized as having a direct relationship with the City. The persons engaged in the Work, including employees of subcontractors and suppliers, will be considered employees of the Contractor and their work shall be subject to the provisions of the Contract. References in these Contract Documents to actions required of subcontractors, manufacturers, suppliers, or any person other than the Contractor, the City or the Construction Manager shall be interpreted as requiring that the Contractor shall require such subcontractor, manufacturer, supplier or person to perform the specified action.

The Contractor shall not employ any subcontractors that are not properly licensed in accordance with State law. Prior to commencement of any work by a subcontractor, the Contractor shall submit verification to the Construction Manager that the subcontractor is properly licensed for the work it will perform.

Contractor shall be fully responsible to City for the performance, acts and omissions of its subcontractors, and of persons directly or indirectly employed by them. Each subcontract shall expressly incorporate by reference the terms of this Contract, including the following provisions:

- Each subcontractor shall carry insurance as required by this Contract, and provide evidence of such insurance, as provided in Section 00800-2.01, **INSURANCE**.
- Each subcontractor shall be obligated to defend, indemnify, and hold the City harmless from all claims arising from the subcontractor's portion of the Work in the same manner as Contractor.
- Each subcontractor shall grant the City a license to use its drawings and design materials as provided in the Agreement.
- Each subcontract shall acknowledge the City's right to suspend or terminate the Contract, and waive any right to anticipated profits in the event of such termination.

The removal and/or substitution of any subcontractor listed in Section 00430, **DESIGNATION OF SUBCONTRACTORS**, shall be made by the Contractor and the City only as provided for in Public Contract Code Section 4100 *et seq.*

4.02 CONTRACTOR'S REPRESENTATIVE

The Contractor shall designate in writing, before starting work, an authorized representative who shall have complete authority to represent and to act for the Contractor. Said authorized representative, or designated alternate, that has the authority to act in matters relating to the Contract, shall be personally present at the work site at all times while work is actually in progress on the Contract. During periods when work is suspended, arrangements acceptable to the Construction Manager shall be made for any emergency work that may be required. The Contractor's authorized representative, or designated alternate(s) shall be fluent and proficient in the English language in order to understand, receive, and carry out oral and written communications or instructions relating to all job functions and responsibilities.

When the Contractor consists of two or more persons, firms, partnerships, or corporations functioning on a joint venture basis, said Contractor shall designate in writing to the Construction Manager, the name of their authorized representative who shall have supreme authority to direct the Work and to whom orders will be given by the Construction Manager, to be received and obeyed by the Contractor.

Information shall include the representative's name, street address, town, and telephone number, and the mailing address if different from the street address.

The Contractor shall give its personal attention to and shall supervise the Work to the end that it shall at all reasonable times be prosecuted faithfully; and when the authorized representative or designated alternate is not personally present on the Work, the representative shall at all reasonable times be represented by a competent superintendent or foreman who shall receive and obey all instructions or orders given under this Contract, and who shall have full authority to supply materials, tools, and labor without delay, and who shall be the legally appointed representative of the Contractor. The Contractor shall be liable for the faithful observation of any instructions delivered to the Contractor or to its authorized representative.

4.03 LANDS AND RIGHTS OF WAY

With the approval of the Construction Manager, the Contractor may use portions of the City's site for storage of construction equipment, materials and field offices. The City will not accept any responsibility for damage or loss of the Contractor's equipment or materials stored on any project related site caused by vandalism, nature, or otherwise, suffered by the Contractor. Protection of all construction equipment, stores, and supplies shall be the sole responsibility of the Contractor. Where additional work space is desired by the Contractor, it shall be the Contractor's sole responsibility and expense to obtain such a space for its use.

4.04 FEES AND PERMITS

The requirements for fees and permits are specified in Section 01060-1.02, **FEES AND PERMITS**.

4.05 COMPLIANCE WITH LAWS

The Contractor shall keep itself and its subcontractors fully informed of all existing and future legislated State and Federal Laws and City and County ordinances and regulations which in any manner affect those engaged or employed in the Work, or the materials and equipment used in the Work, or which in any way affect the conduct of the Work, and all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the

Drawings, Specifications, or in any other part of this Contract, in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report of the same to the Construction Manager in writing. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees; and shall protect and indemnify the City, the Construction Manager, the Design Consultant, and all of their officers, agents, employees and servants against any claim or liability arising from or based upon the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor itself or by its employees.

A. Particular attention is called to the following:

1. The Contractor shall abide by and shall include in its contracts and agreements with subcontractor(s) for the performance of Work on the City's Project a copy of the provisions the California Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815.

2. Eight Hour Day Limitation – In accordance with the provisions of Division 2, Part 7, Chapter 1, Article 3 of the Labor Code, State of California, and in particular Sections 1810 to 1815 inclusive, thereof, eight (8) hours labor shall constitute a day's work and no laborer, worker, or mechanic in the employ of said Contractor, or any subcontractor doing or contracting to do any part of the Work contemplated by this Contract, shall be required or permitted to work more than eight (8) hours in any one calendar day, and forty (40) hours in any one calendar week unless compensated at not less than time and a half as set forth in California Labor Code Section 1815. However, if the prevailing wage determination requires a higher rate of pay for overtime than is required under said Section 1815, then the overtime rate must be paid, as specified in California Code of Regulations Title 8, Group 3, Section 16200(a)(3)(F). The Contractor and each subcontractor shall also keep an accurate record showing the names and actual hours worked of all workers employed by them in connection with the work contemplated by this Contract, which record shall be open at all reasonable hours for the inspection of the City or its officers or agents and by the Division of Labor Standards Enforcement of the Department of Industrial Relations, their deputies or agents; and it is hereby further agreed that said Contractor shall forfeit as a penalty to the Authority, the sum of twenty-five and No/100 Dollars (\$25.00) for each laborer, worker or mechanic employed in the execution of this Contract by the Contractor or by any subcontractor for each calendar day during which such laborer, worker or mechanic is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in one calendar week in violation of this stipulation. The contractor shall be responsible for compensation to the City for any requested or required inspection outside of the City's 8 hour work day.

B. Prior to commencing the Work, Contractor shall comply with the provisions of Labor Code 1777.5, including but not limited to the submission of contract award information to an applicable apprenticeship program that can supply apprentices to the site of the Work. Such information shall include an estimate of journeyman hours to be performed under this Contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall be submitted to the City if requested by the City.

A determination by the Chief of the Division of Apprenticeship Standard's that Contractor or its subcontractors have knowingly violated Labor Code 1777.5 shall forfeit as a civil penalty an amount not exceeding one hundred dollars (\$100) for each full calendar day of noncompliance. Contractor or its subcontractor, who knowingly commits a second or subsequent violation of Labor Code 1777.5 within a three-year period, where the noncompliance results in apprenticeship training not being provided as required, shall forfeit as a civil penalty the sum of not more than three hundred dollars (\$300) for each full calendar day of noncompliance. Upon the receipt of a determination that a civil penalty has been

imposed by the Chief of the Division of Apprenticeship Standards, the City shall withhold the amount of the civil penalty from the next progress payment then due or to become due Contractor.

C. Receipt of Workers' Wages, Fee for Registering or Placing Persons In Public Works - Attention is directed to the provisions of Sections 1778 and 1779 of the California Labor Code, which read as follows:

Section 1778. "Every person, who individually or as a representative of an awarding or public body or officer, or as a contractor or subcontractor doing public work, or agent or officer thereof, who takes, receives or conspires with another to take or receive, for its own use or the use of any other person any portion of the wages of any workman or working subcontractor, in connection with services rendered upon any public work is guilty of a felony."

Section 1779. "Any person or agent or officer thereof who charges, collects, or attempts to charge or collect, directly or indirectly, a fee or valuable consideration for registering any person for public work, or for giving information as to where such employment may be procured, or for placing, assisting in placing, or attempting to place, any person in public work, whether the person is to work directly for the state, or any political subdivision or for a contractor or subcontractor doing public work is guilty of a misdemeanor."

D. Labor Discrimination. Attention is directed to Section 1735 of the Labor Code, which reads as follows:

"No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for violation of this chapter."

E. Worker's Compensation Insurance - The provisions of Section 00800-2.01B, Worker's Compensation Insurance, shall be considered as repeated herein.

F. Lateral and Subjacent Supports - Attention is directed to Section 832 of the Civil Code of the State of California relating to lateral and subjacent supports, and wherever structures or improvements adjacent to the excavation may be damaged by such excavation, the Contractor shall comply with this law. As provided in Labor Code Section 6707, a separate bid item is provided for costs of shoring and bracing of excavations five feet or more in depth.

G. Safety Standards - The Contractor shall comply with all applicable provisions of the Safety and Health Regulations of Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act (40 USC 327 et. seq.) as set forth in Title 29, C.F.R., CAL/OSHA, and the regulations issued thereunder. Compliance shall be the Contractor's sole responsibility, and neither the City, the Construction Manager nor the Design Consultant shall have any liability for non-compliance. See Section 00700-4.07, **SAFETY**, for additional safety requirements.

4.06 COMPLIANCE WITH ENVIRONMENTAL LAWS

During construction, including any suspension of the Work, the Contractor shall comply with all pertinent requirements of Federal, State, and local environmental laws and regulations, including, but not limited to, the Federal Clean Air Act, State and local air pollution and noise ordinances, construction site erosion control regulations. Specific requirements are further specified in Section 01060, **REGULATORY REQUIREMENTS AND PERMITS**, and Section 01560, **TEMPORARY CONTROLS**.

4.07 SAFETY

A. Contractor's Safety Responsibility - The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to U.S. Department of Labor (OSHA), the California Occupational Safety and Health Act, and all other applicable Federal, State, County, and local laws, ordinances, codes, the requirements set forth below, and any regulations that may be detailed in other parts of these Contract Documents. In the event of conflicting requirements, the most stringent requirement as it pertains to the Contractor's safety responsibility, shall apply and shall be followed by the Contractor.

No provision of the Contract Documents shall act to make the City, the Construction Manager, Design Consultant or any other party than the Contractor responsible for safety. The Contractor agrees that for purposes of California Labor Code Section 6400 and related provisions of law the Contractor, the Contractor's privities and any other entities acting pursuant to this Contract will be "employers" responsible for furnishing employment and a place of employment that is safe and healthful for the employees, if any, of such entities acting pursuant to this Contract and that neither the City nor the Construction Manager, Design Consultant or their respective officers, officials, employees, agents or volunteers or other authorized representatives will be responsible for having hazards corrected and /or removed at the location(s) where the Work is to be performed. The Contractor agrees that neither the City nor the Construction Manager, Design Consultant or their respective officers, officials, employees, agents or volunteers or other authorized representatives will be responsible for taking steps to protect the Contractor's employees from such hazards, or for instructing the Contractor's employees to recognize such hazards or to avoid the associated dangers. The Contractor agrees that with respect to the Work to be performed under this Contract and the location(s) where such Work is to be performed, the Contractor will be responsible for not creating hazards, and for having hazards corrected and/or removed. The Contractor agrees that through the safety obligations contained in this Contract and the Contractor's own inspection of the site(s) where the Contract Work is to be performed, the Contractor is aware and has been notified of the hazards to which the Contractor's employees may be exposed in the performance of Contract Work. The Contractor has taken and/or will take appropriate, feasible steps to protect the Contractor's employees from such hazards, and has instructed and/or will instruct its employees to recognize such hazards and how to avoid the associated dangers. The Contractor agrees that neither the City nor the Construction Manager, Design Consultant or their respective officers, officials, employees, agents or volunteers or other authorized representatives will be "employers" pursuant to California Labor Code Section 6400 and related provisions of law with respect to the Contractor, the Contractor's privities or other entities acting pursuant to this Contract.

The Contractor shall indemnify, defend and hold Owner and Construction Manager, Design Consultant and their respective officers, officials, employees, agents and volunteers or other authorized representatives harmless to the full extent permitted by law concerning liability related to the Contractor's safety obligations in accordance with Section 00800-2.01E, Indemnification.

If death or serious injuries or serious damages occur, the accident shall be reported immediately by telephone or messenger to both the Construction Manager and the City. In addition, the Contractor shall furnish the Construction Manager with a copy of the Employer's Report of Injury immediately following any incident requiring the filing of said report during the prosecution of the Work under this Contract. The Contractor shall also furnish the Construction Manager with a copy of the Employer's Report of Injury involving any subcontractors on this project. The Contractor shall make all reports as are, or may be, required by any authority having jurisdiction, and permit all safety inspections of the Work being performed under this Contract.

If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Construction Manager, giving full details of the claim.

B. Safety Program - The Contractor shall establish, implement, and maintain a written injury prevention program as required by Labor Code Section 6401.7. Before beginning the Work the Contractor shall prepare and submit to the Construction Manager a Contractor Safety Program that provides for the implementation of all of the Contractor's safety responsibilities in connection with the Work at the site and the coordination of that program and its associated procedures and precautions with safety programs, precautions and procedures of each of its subcontractors and other prime Contractors performing work at the site. The Contractor shall be solely responsible for initiating, maintaining, monitoring, coordinating, and supervising all safety programs, precautions, and procedures in connection with the Work and for coordinating its programs, precautions, and procedures of the other prime contractors and subcontractors performing the Work at the site. The Safety Program should contain all the necessary elements for the Contractor to administer its program on site. At a minimum, this written Safety Program shall address the elements required by Labor Code Section 6401.7.

The Contractor's compliance with requirements for safety and/or the Construction Manager's review of the Contractor's Safety Program shall not relieve or decrease the liability of the Contractor for safety. The Construction Manager's review of the Contractor's Safety Program is only to determine if the above listed elements are included in the program.

C. Safety Supervisor - The Contractor shall appoint an employee as safety supervisor who is qualified and authorized to supervise and enforce compliance with the Safety Program. The Contractor shall notify the Construction Manager in writing prior to the commencement of work of the name of the person who will act as the Contractor's safety supervisor and furnish the safety supervisor's resume to the Construction Manager.

The Contractor will, through and with its Safety Supervisor, ensure that all of its employees and its subcontractors of any tier fully comply with the Project Safety Policies. The Safety Supervisor shall be a full-time employee of the Contractor whose responsibility shall be for supervising compliance with applicable safety requirements on the work site and for developing and implementing safety training classes for all job personnel. The City shall have the authority to require removal of the Contractor's Safety Supervisor if the representative is judged to be improperly or inadequately performing the duties; however, this authority shall not in any way affect the Contractor's sole responsibility for performing this work safely, nor shall it impose any obligation upon the City to ensure the Contractor performs its work safely.

D. Safety and Protection - The Contractor shall take all necessary protection to prevent damage, injury, and loss to:

- All employees on the Project, employees of all subcontractors, and other persons and organizations who may be affected thereby;
- All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
- Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.

The Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and of underground facilities and utility agencies when prosecution of the Work may affect them and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor, supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the Contractor.

E. Excavation Safety - In accordance with the provisions of Section 6705 of the Labor Code, the Contractor shall submit, in advance of excavation of any trench or trenches five feet or more in depth, 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 trench or trenches. If such plans vary from the shoring system standards set forth in the Construction Safety Orders of the Division of Industrial Safety in Title 8, Subchapter 4, Article 6, California Code of Regulations, the plans shall be prepared and signed by a registered civil or structural engineer employed by the Contractor, and all costs therefore shall be included in the price named in the Contract for completion of the Work as set forth in the Contract Documents. Nothing in this section shall be deemed to allow the use of a shoring, bracing, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this section shall be construed to impose a tort liability on the City, the Design Consultant, the Construction Manager, nor any of their agents, consultants, or employees. The City's review of the Contractor's excavation plan is only for general conformance to the Construction Safety Orders.

Prior to commencing any excavation, the Contractor shall designate in writing to the Construction Manager the "competent person(s)" with the authority and responsibilities designated in the Construction Safety Orders.

F. Safety Emergencies - In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, the Contractor, without special instruction or authorization from the Construction Manager, is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Construction Manager prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby.

G. Safety Violations - Should the Contractor fail to correct a condition, the City shall have the right to notify the Contractor through the Construction Manager that an unsafe condition may exist and must be corrected or the work in question can be stopped in accordance with Section 00700-6.06, **SUSPENSION OF WORK**, until the condition is corrected to the satisfaction of the City. No extension of time or additional compensation will be granted as a result of any stop order so issued. The notification and suspension of such work or the failure to provide such notification and suspension by the City shall not relieve the Contractor of its sole responsibility and liability for safety.

The City shall have the authority to require the removal from the project of the foreman and/or superintendent in responsible charge of the work where safety violations occur.

H. Equipment Safety Provisions - The completed Work shall include all necessary permanent safety devices, such as machinery guards and similar ordinary safety items, required by the State and Federal (OSHA) industrial authorities and applicable local and national codes. Further, any features of the Work, including City-selected equipment, subject to such safety regulations shall be fabricated, furnished, and

installed in compliance with these requirements. All equipment furnished shall be electrically grounded and provided guards and protection as required by safety codes. Where vapor-tight or explosion-proof electrical installation is required by safety codes, this shall be provided. Contractors and manufacturers of equipment shall be held responsible for compliance with the requirements included herein. The Contractor shall notify all equipment suppliers and subcontractors of the provisions of this paragraph.

I. Confined Spaces – The Work requires work in confined spaces and requires compliance with CAL/OSHA and Federal OSHA requirements. Confined spaces for the purposes of this section shall be as defined by the Division of Industrial Safety. Notwithstanding any classifications relative to the Tunnel Safety Orders, work within confined spaces of this project is subject to the definitions and applicable provisions of Section 5156 *et seq.*, Title 8, Division 1, Chapter 4, Subchapter 7, Group 16, Article 108 of California Code of Regulations. Including exposure to hydrogen sulfide, methane, carbon dioxide and other gases and vapors commonly found in municipal sewers which could have, or has the potential of having Immediate Danger to Life or Health Conditions (IDLH).

J. Public Safety and Convenience - The Contractor shall conduct his work so as to ensure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work and to ensure the protection of persons and property. No road or street shall be closed to the public except with the permission of the Construction Manager and the proper governmental authority. Fire hydrants on or adjacent to the work shall be accessible to fire fighting equipment. Temporary provisions shall be made by the Contractor to ensure the use of sidewalks, private and public driveways and proper functioning of gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses.

4.08 PROVISIONS FOR HANDLING EMERGENCIES

It is possible that emergencies may arise during the progress of the Work that may require special treatment or make advisable extra shifts of labor forces to continue the Work for twenty-four (24) hours per day. These emergencies may be caused by damage or possible damage to nearby existing structures or property by reason of the Work under construction, or by storm, accidents, or leakage. The Contractor shall be prepared in case of such emergencies to make all necessary repairs and shall promptly execute such work when required by the Construction Manager. The determinations made by the Construction Manager for handling emergencies shall be final and conclusive upon the parties.

Upon start of the Work, Contractor shall provide means for immediate emergency notification of Contractor's designated representative and designated emergency alternates.

4.09 NONSTANDARD WORKING HOURS

The Contractor may be required to prosecute the Work at night or outside of the normal working hours defined in Section 01560-1.07, **WORKING HOURS**. Such work may be required due to project and/or operational constraints as defined in Section 01010, **SUMMARY OF WORK**, or if emergencies arise as provided for in Section 00700-4.08, **PROVISIONS FOR HANDLING EMERGENCIES**. When required, ordered, or permitted to work at night, the Contractor shall provide sufficient and satisfactory lighting and other facilities therefore. For work outside of the normal working hours, the Contractor shall receive no extra payment, but compensation shall be considered as having been included in the price stipulated for the Work, except for authorized work performed outside of the Contract requirements.

4.10 COOPERATION WITH OTHER CONTRACTORS

This Paragraph shall serve as notice to the Contractor that the City may let other contracts for other work at or near the site of this Work. The Contractor shall afford other contractors reasonable

opportunity for the delivery and storage of their materials and the execution of their work, and shall properly connect and coordinate its work with theirs.

Should construction be under way by other forces or by other contractors within or adjacent to the limits of the work or in the vicinity of the Work to be done under this Contract, the Contractor shall so conduct its operations as to interfere to the least possible extent with the Work of such other forces or contractors.

Any difference or conflicts which may arise between the Contractor and any other forces or contractors, creating delays or hindrance to each other, shall be adjusted as determined by the Construction Manager.

Section 01010, **SUMMARY OF WORK**, indicates anticipated other potential construction activities within or adjacent to Work to be performed in this Contract.

5 ARTICLE 5 - CONTROL OF WORK AND MATERIAL

5.01 MEANS, METHODS AND APPLIANCES

The means, methods and appliances adopted by the Contractor shall be planned and executed to, in the opinion of the Construction Manager, produce the highest grade quality of work and will enable the Contractor to complete the Work in the time agreed upon. The City and Construction Manager shall not supervise, direct, or have control over, or be responsible for, Contractor's means, methods and appliances of construction or for the safety precautions and programs incident thereto, or for any failure of Contractor to comply with laws and regulations applicable to the furnishing or performance of Work. However, if at any time the means, methods and appliances appear inadequate or of inferior quality, the Construction Manager may order the Contractor to improve their character or efficiency, and the Contractor shall conform to such order; failure of the Construction Manager to order such improvement of methods of efficiency will not relieve the Contractor from its obligation to perform satisfactory work and to finish it in the time agreed upon.

5.02 CHARACTER OF WORKERS

None but competent forepersons and workers shall be employed on work requiring special qualifications; and, when required by the Construction Manager, the Contractor shall remove from the work any person who commits trespass, or is, in the opinion of the Construction Manager, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. Such discharge shall not be the basis of any claim for compensation or damages against the Construction Manager, the City, or any of its officers or representatives.

5.03 MATERIALS AND WORKMANSHIP

Unless otherwise indicated in these Specifications, materials and equipment for the construction work shall be the best grade in quality of a manufacturer regularly engaged in the production of such materials and equipment or materials and equipment of comparable character. All materials must be of the specified quality and equal to approved samples, if samples have been submitted. All work shall be done and completed in the best workmanlike manner, obtainable in the local market. All permanent materials and equipment shall be new unless otherwise specified.

Notwithstanding any omission from these Specification or the Drawings it shall be the duty of the Contractor to call the Construction Manager's attention to apparent errors or omissions and request instructions before proceeding with the Work. The Construction Manager may, by appropriate

instructions correct errors and supply omitted information. Such instructions shall be as binding upon the Contractor as though contained in the original Specifications or Drawings.

All defective work or materials shall be promptly removed from the premises by the Contractor, whether in place or not, and shall be replaced or renewed in such manner as the Construction Manager may direct. All materials and workmanship of whatever description shall be subjected to the inspection of, and rejection by, the Construction Manager if not in conformance with the Contract Documents.

Any defective material or workmanship, or any unsatisfactory or imperfect work which may be discovered before the final Acceptance of the Work or within one (1) year thereafter, shall be corrected immediately on the requirement of the Construction Manager, without extra charge, notwithstanding that it may have been overlooked in previous inspections and estimates. Failure to inspect work shall not relieve the Contractor from any obligation to perform sound and reliable work as herein described.

5.04 EXISTING UTILITIES

A. General - The location of known existing utilities and pipelines are shown on the Plans in their approximate locations. However, nothing herein shall be deemed to require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the site of the Project can be inferred from the presence of other visible facilities, such as buildings, cleanouts, meter and junction boxes, on or adjacent to the site of the construction.

The City will assume the responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the construction site if such utilities are not identified by the City in the Contract Documents or which can reasonably be inferred from the presence of other visible facilities.

B. Utility Location - It shall be the Contractor's responsibility to determine the exact location and depth of all utilities, including service connections, which have been marked by the respective utility owners and which the Contractor believes may affect or be affected by the Contractor's operations. The Contractor shall not be entitled to additional compensation nor time extensions for work necessary to avoid interferences nor for repair to damaged utilities if the Contractor does not expose all such existing utilities as required by this section.

Pursuant to Government Code Section 4216.2 the Contractor shall contact the appropriate regional notification center at least two (2) working days before, but not more than 14 calendar days prior to commencing any excavation. The Contractor shall request that the utility owners conduct a utility survey and mark or otherwise indicate the location of their service.

After the utility survey is completed, the Contractor shall commence "potholing" or hand digging to determine the actual location of the pipe, duct, or conduit. The Construction Manager shall be given notice prior to commencing potholing operations. The Contractor shall uncover all piping and conduits, to a point one (1) foot below the pipe, where crossings, interferences, or connections are shown in the Contract Documents, prior to trenching or excavating for any pipe or structures, to determine actual elevations. New pipelines shall be laid to such grade as to clear all existing facilities which are to remain in service for any period subsequent to the construction of the run of pipe involved.

C. Utility Relocation and Repair - If interferences occur at locations other than those indicated in the Contract Documents with reasonable accuracy, the Contractor shall notify the Construction Manager in writing. The Construction Manager will supply a method for correcting said interferences in accordance with the responsibilities of this section and Government Code Section 4215.

The City shall compensate the Contractor for the costs of locating and repairing damage not due to the failure of the Contractor to exercise reasonable care, and for removing or relocating such main or trunk-

line utility facilities not indicated in the Contract Documents with reasonable accuracy, and for the cost of equipment on the Project necessarily idled during such work. The payment for such costs will be made as provided in Section 00700-7.01, **CHANGE ORDERS**. The Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay is caused by the failure of the City or utility company to provide for removal or relocation of such utility facilities. Requests for extensions of time arising out of utility relocation or repair delays shall be filed in accordance with Section 01310-1.06, **TIME IMPACT ANALYSES**.

The public utility, where they are the owner of the affected utility, 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 right is reserved to the City and the owners of utilities or their authorized agents to enter upon the Work area for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with forces engaged in such work and shall conduct its operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such forces and shall allow the respective utilities time to relocate their facility.

When the Contract indicates that a utility is to be relocated, altered or constructed by others, the City will conduct all negotiations with the utility company and the work will be done at no cost to the Contractor, unless otherwise stipulated in the Contract.

Temporary or permanent relocation or alteration of utilities desired by the Contractor for its own convenience shall be the Contractor's responsibility and it shall make arrangements and bear all costs for such work.

6 ARTICLE 6 - PROGRESS OF THE WORK

6.01 COMMENCEMENT OF WORK

After receipt of the required bonds and evidences of insurance and the executed Agreement from the Contractor, written Notice to Proceed will be given by the City to Contractor. Notwithstanding other provisions of the Contract, the Contractor shall not be obligated to perform work, and the City shall not be obligated to accept or pay for work performed by the Contractor, prior to Notice to Proceed. The Contractor shall provide the required Contract bonds and evidences of insurance prior to Notice to Proceed and commencing work at the Site.

The Contractor shall commence the Work covered by this Contract within ten (10) days after the date established in the Notice to Proceed for the commencement of Contract Time.

The Contractor shall give the Construction Manager written notice not less than two (2) working days in advance of the actual date on which the work will be started. The Contractor shall be entirely responsible for any delay in the Work which may be caused by its failure to give such notice.

6.02 CONTRACT TIME

Time shall be of the essence of the Contract. The Contractor shall prosecute the Work so that the various portions of the project shall be Substantially Complete and ready for use within the time specified in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**. It is expressly understood and agreed by and between the Contractor and the City that the Contract time for completion of the Work described herein is a reasonable time taking into consideration the average climatic and economic conditions and other factors prevailing in the locality and the nature of the Work. The Contractor is hereby advised that the Contractor's Bid is to be based on the entire Contract Time and the Contractor shall include its field and home office overhead costs in the Bid for the entire Contract Time.

6.03 DELAYS

A. Notice of Delays - When the Contractor foresees a delay in the prosecution of the Work and, in any event, immediately upon the occurrence of a delay, and in any event no later than five days from the event giving rise to the delay, the Contractor shall notify the Construction Manager in writing of the probability of the occurrence and the estimated extent of the delay, and its cause. The Contractor shall take immediate steps to prevent, if possible the occurrence or continuance of the delay. The Contractor agrees that no claim shall be made for delays, which are not called, to the attention of the Construction Manager at the time of their occurrence.

B. Non-Excusable Delays - Non-excusable delays in the prosecution of the Work shall include delays which could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its subcontractors at any tier level, or suppliers. The Contractor shall receive no compensation for such delay.

C. Excusable Delays - Excusable delays in the prosecution or completion of the Work shall include delays which result from causes beyond the control of the Contractor and City and which could not have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its subcontractors, at any tier level, or suppliers. The Contractor shall receive no compensation for such delay, but the Contract Time may be extended as provided in Section 6.04. Excusable delays are as further defined below.

1. Abnormal Delays - Delays caused by acts of god, fire, unusual storms, floods, tidal waves, earthquakes, strikes, labor disputes, freight embargoes, and shortages of materials shall be considered as excusable delays insofar as they prevent the Contractor from proceeding with at least seventy-five (75) percent of the normal labor and equipment force for at least five (5) hours per day toward completion of the current critical activity item(s) on the latest Favorably Reviewed Progress Schedule.

2. Weather Delays - Should unusual inclement weather conditions or the conditions resulting from weather prevent the Contractor from proceeding with seventy-five (75) percent of the normal labor and equipment force engaged in the current critical activity item on the latest Favorably Reviewed Progress Schedule for a period of at least five (5) hours per day toward completion of such operation or operations, and the crew is dismissed as a result thereof, it shall be a weather delay day.

3. Material Shortages - Upon the submission of satisfactory proof to the Construction Manager by the Contractor, shortages of material may be acceptable as grounds for granting a time extension. In order that such proof may be satisfactory and acceptable to the Construction Manager, it must be demonstrated by the Contractor that the Contractor has made every effort to obtain such materials from all known sources within reasonable reach of the proposed Work. Only the physical shortage of material, caused by unusual circumstances, will be considered under these provisions as a cause for extension of time, and no consideration will be given to any claim that material could not be obtained at a reasonable, practical, or economical cost or price, unless it is shown to the satisfaction of the Construction Manager that such material could have been obtained only at exorbitant prices entirely out of line with current rates, taking into account the quantities involved and usual practices in obtaining such quantities. A time extension for shortage of material will not be considered for material ordered or delivered late or whose availability is affected by virtue of the mishandling of procurement. The above provisions apply equally to equipment to be installed in the Work.

D. Compensable Delays - Compensable delays in the prosecution or completion of the Work shall include delays that occur through no fault of the Contractor and prevent the Contractor from proceeding with at least seventy-five (75) percent of the normal labor and equipment force for at least

five (5) hours per day toward completion of the current critical activity item(s) on the latest Favorably Reviewed Progress Schedule due to the following cause(s):

1. Delays due solely to the actions and/or inactions of the City.
2. Delays due to differing site conditions as defined in Section 00700-7.02, **DIFFERING SITE CONDITIONS**.
3. Delays due to other contractors employed by the City who interfere with the Contractor's prosecution of the Work as defined above.

E. Concurrent Delays - Concurrent delays are those delay periods when the prosecution of the Work is delayed during the same period of time due to causes from a combination of the delays defined in Sections 00700-6.03B, **Non- Excusable Delays**, 00700-6.03C, **Excusable Delays**, or 00700-6.03D, **Compensable Delays**. During such concurrent delay periods, time extensions will be granted in accordance with Section 00700-6.04, **TIME EXTENSIONS**; however, the Contractor shall not be compensated for its overhead costs as defined in Section 00700-6.04C, **Indirect Overhead**, and the City shall not assess its actual costs as defined in Section 00700-6.04A, **Non- Excusable Delays**.

6.04 TIME EXTENSIONS

A. Non-Excusable Delays - The City, at its sole option, may grant an extension to milestone or completion dates for non-excusable delays. If the City grants an extension of time for non-excusable delays, the Contractor agrees to pay the City's actual costs, including charges for engineering, inspection and administration incurred during the extension.

B. Excusable or Compensable Delays - If the Contractor is delayed in the performance of its Work as defined in Sections 00700-6.03C, Excusable Delays, or 00700-6.03D, Compensable Delays, then milestone and Contract completion dates may be extended by the City for such time that, in the City's and Construction Manager's determination, the Contractor's completion dates will be delayed, provided that the Contractor strictly fulfills the following:

1. The Contractor shall provide notification, in accordance with Section 00700-6.03A, Notice of Delays, and submit in writing a request for an extension of time to the Construction Manager stating at a minimum the probable cause of the delay and the number of days being requested. The time extension request shall be submitted in accordance with the requirements of Section 01310-1.06, **TIME IMPACT ANALYSES**.

2. If requested by the Construction Manager, the Contractor shall promptly provide sufficient information to the Construction Manager to assess the cause or effect of the alleged delay, or to determine if other concurrent delays affected the Work.

3. Weather Delays - The Contractor will be granted a non-compensable time extension for weather caused delays, pursuant to Section 00700-6.03 C2, **Weather Delays**, over and above an allowance as provided for in Section 00800-1.03, **WEATHER DAYS**. No compensable time extensions for weather delays will be granted until the total number of weather days exceeds this allowance.

Should the Contractor fail to fulfill any of the foregoing, which are conditions precedent to the right to receive a time extension, the Contractor waives the right to receive a time extension.

During such extension of time, neither extra compensation for engineering, inspection, and administration nor damages for delay will be charged to the Contractor. It is understood and agreed by the Contractor and City that time extensions due to excusable or compensable delays will be granted only if such delays involve the current critical activity item(s) on the latest Favorably Reviewed Progress Schedule.

Should the Contractor fail to complete the Work within the time specified in the Contract, as extended in accordance with this clause if appropriate, the Contractor shall pay to the City liquidated damages in accordance with Section 00700-6.05, **LIQUIDATED DAMAGES**.

C. Indirect Overhead - The Contractor may be entitled to reimbursement of indirect overhead expenses for periods of time when the Work is delayed as defined in Section 00700-6.03D, **Compensable Delays**. Reimbursement for indirect overhead shall not be made for concurrent delays as defined in Section 00700-6.03E, **Concurrent Delays**.

The compensation described in Section 01035-1.05, **MARK-UP ALLOWANCES**, includes provisions for reimbursement of indirect overhead expenses for Change Order work. Compensation as described in this section shall reasonably consider the indirect overhead included in the Mark-Up Allowance, as follows:

1. If City and Contractor agree that the Mark-Up Allowance does not provide sufficient compensation for a compensable delay associated with changed work, this section shall apply.
2. Upon application of this section, an amount equal to the entire Mark-Up Allowance for all Change Order work shall be deducted from the indirect overhead compensation as calculated based on Sections 00700 6.04 C3 (**Indirect Field Overhead**) and 6.04 C4 (**Indirect Home Office Overhead**) below.

As a condition precedent to any reimbursement of indirect overhead expense, the Contractor must fulfill all conditions as provided in Section 00700-6.04B, **Excusable or Compensable Delays**. No additional markup for overhead or profit shall be provided for such reimbursable indirect overhead expenses.

Payment to the Contractor for indirect overhead expenses will be made only for the extended Contract Time granted for Compensable Delay(s) that run following the expiration of the original Contract Time plus any time extensions granted for delays other than Compensable Time extensions.

3. Indirect Field Overhead - For those allowable delay periods as defined in Section 00700-6.04C, **Indirect Overhead**, the Contractor shall be reimbursed for its indirect field overhead based on:
 - a. Actual invoice costs for on-site field offices and temporary utilities as described in Section 01560, **TEMPORARY CONTROLS**, and Section 01510, **TEMPORARY UTILITIES**.
 - b. Actual indirect labor costs, as determined consistent with Section 01035-1.03, **FORCE ACCOUNT PAYMENT**, for field office staff.
 - c. Fair rental values acceptable to the Construction Manager as described in Section 01035-1.03, **FORCE ACCOUNT PAYMENT**, for construction equipment idled due to the delay.
4. Indirect Home Office Overhead - For those allowable delay periods as defined in Section 00700-6.04C, **Indirect Overhead**, the Contractor shall be reimbursed for its unabsorbed home office overhead based on the following formula:

The Contract Award Amount is the total amount in the executed **Agreement** (Section 00500). The Contract Time is as provided in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**.

As it is impractical to determine the actual home office overhead, such reimbursement shall constitute full payment for any and all home office overhead expenses for such periods of time for the Contractor and all subcontractors, whether greater or less than actual. Distribution of the markup amount among the Contractor and all subcontractors and suppliers is the responsibility of the Contractor.

6.05 LIQUIDATED DAMAGES

A. Owner and the Contractor recognize that time is of the essence of this Agreement and that the Owner will suffer financial loss if the Work is not completed within the time specified in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**, and required milestone work in Section 00800-1.02 herein, plus any extensions thereof allowed in accordance with Section 00700-6.04 of the General Conditions. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage which the Owner will sustain in the event of and by reason of the Contractor's failure to fully perform the Work or to fully perform all of its Contract obligations that have accrued by the time for completion as specified in Section 00800-1.01 herein and/or as specified for completion of any scheduled operations or works described in Section 00800-1.02. It is, therefore, agreed in accordance with California Government Code Section 53069.85 that the Contractor will forfeit and pay to the Owner liquidated damages in the amount set forth in Section 00800-1.02, **DAMAGES FOR DELAYS**, per day for each and every calendar day that expires after the time for completion specified in Section 00800-1.01 herein and/or as specified for completion of any scheduled operations or works described in Section 00800-1.02 except as otherwise provided by extension of time pursuant to Section 00700-6.04 of the General Conditions. It is further understood and agreed in accordance with California Government Code Section 53069.85 that the liquidated damages sum specified in this provision is not manifestly unreasonable under the circumstances existing at the time this Contract was made, and that the Owner may deduct liquidated damages sums in accordance with this provision from any payments due or that may become due the Contractor.

B. Liquidated damages will continue to accrue at the stated rate until Substantial Completion of the Work. Accrued liquidated damages may be deducted by the Owner from amounts due or that become due to the Contractor for performance of the Work. Liquidated damages may not be waived or reduced by the Owner unless expressly waived or reduced in writing by the Construction Manager.

6.06 SUSPENSION OF WORK

A. If the Contractor fails to correct defective work as required by Section 00700-5.03, **MATERIALS AND WORKMANSHIP**, or fails to carry out the Work in accordance with the Contract Documents or any other applicable rules and regulations, the City, by a written order of the City's representative or signed personally by an agent specifically so empowered by the City, in writing, may order the Contractor to stop the Work, or any portion thereof. The suspension of Work shall remain in effect until the cause for such order has been eliminated. This right of the City to stop the Work shall not give rise to any duty on the part of the City to exercise this right for the benefit of the Contractor or any other person or entity. All delays in the Work occasioned by such stoppage shall not relieve the Contractor of any duty to perform the Work or serve to extend the time for its completion. Any and all necessary corrective work done in order to comply with the Contract Documents shall be performed at no cost to the City. The City's concurrence that the condition or cause has been eliminated will be provided in writing to the Contractor.

B. In the event that a suspension of Work is ordered, as provided in this paragraph, the Contractor, at its expense, shall perform all work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public, pedestrian, and vehicular traffic, during the period of such use by suspension. Should the Contractor fail to perform the Work as specified, the City may perform such work and the cost thereof may be deducted from monies due the Contractor under the Contract.

C. The City shall also have authority to suspend the Work wholly or in part, for such period as the City may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the Work, or for the City's own convenience. Such

temporary suspension of the Work will be considered justification for time extensions to the Contract in an amount equal to the period of such suspension if such suspended work includes the current critical activity on the latest Favorably Reviewed Progress Schedule. The Contractor as directed by the City shall provide the provisions as stipulated in Section 00700-6.06, **SUSPENSION OF WORK**, above. Such additional work shall be compensated as provided for in Section 00700-Article 7, **CHANGES IN THE WORK**.

6.07 RIGHT TO TERMINATE CONTRACT

A. Termination for Default

1. In the event of default by the Contractor, the City may give 10 Days written notice to the Contractor of City's intent to terminate the Agreement and provide the Contractor an opportunity to remedy the conditions constituting the default. It will be considered a default by the Contractor whenever Contractor shall:

- a. Declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors;
- b. Fail to provide materials or workmanship meeting the requirements of the Contract Documents;
- c. Disregard or violate provisions of the Contract Documents or Construction Manager's instructions;
- d. Fail to prosecute the Work according to the accepted progress schedule; or
- e. Fail to provide a qualified superintendent, competent workmen, or materials or equipment meeting the requirements of the Contract Documents; or
- f. Fail to provide a consistently safe work place and follow the Contractor's approved safety plan.

2. If the Contractor fails to remedy the conditions constituting default within the time allowed, the City may then issue the Notice of Termination.

3. In the event the Agreement is terminated in accordance with the above provisions of Paragraph 6.07, the City may take possession of the Work and may complete the Work by whatever method or means the City may select. The cost of completing the Work will be deducted from the balance which would have been due the Contractor had the Agreement not been terminated and the WORK completed in accordance with the Contract Documents. If such cost exceeds the balance which would have been due, the Contractor shall pay the excess amount to the City. If such cost is less than the balance which would have been due, the Contractor shall have no claim to the difference.

B. Termination of Agreement by City (For Convenience)

1. The City may, without cause and without prejudice to any other right or remedy of the City, terminate the Agreement at any time by providing Contractor a written Notice of Termination. In such a case, the Contractor shall have no Request for Change Orders or claims against the City except for (i) the value of Work performed up to the date the Agreement is terminated and (ii) the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date the Agreement is terminated, which would be needed in the Work and which meet the requirements of the Contract Documents.

2. The value of Work performed and the cost of materials and equipment delivered to the site, as mentioned above, will be determined by the City in accordance with the procedure prescribed for the making of the final Application for Payment under Article 8 below.

3. If a Notice of Termination issued by City for default under the provision of Paragraph 15.2 is found by a court (or other tribunal having jurisdiction) to be in violation of said provisions, the termination shall be deemed to be a termination for the City's convenience under the provisions of this Paragraph 15.3, and all of the provisions of this Article relating to a Notice of Termination issued under Paragraph 15.3 shall apply.

4. After receipt of Notice of Termination, and except as directed by the City, the Contractor shall, regardless of any delay in determining or adjusting any amounts due under this termination for convenience clause, immediately proceed with the following obligations:

- a. Stop Work as specified in the Notice of Termination.
- b. Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality and safety called for under the Contract Documents.
- c. Leave the property upon which the Contractor was working and upon which the facility (or facilities) forming the basis of the Contract Documents is situated in a safe and sanitary manner such that it does not pose any threat to the public health or safety of the public (including the occupants of any adjoining properties).
- d. Terminate all subcontracts to the extent that they relate the portions of the Work terminated.
- e. Place no further subcontracts or orders, except as necessary to complete any Work specified in the Notice of Termination.

6.08 SUSPENSION, TERMINATION, OR CHANGES IN WORK DUE TO LITIGATION

1. If all Work is suspended, delayed, or interrupted by an order of a court of competent jurisdiction, such suspension, delay or interruption will be considered to be for the convenience and benefit of the City under the provisions of Paragraph 15.1, except where the order is determined by the City to have resulted from a failure or refusal of the Contractor to comply with this Agreement or any statute, rule, regulation, or decision directly applicable to performance of the Work in effect at the time of contract award, in which case the suspension, delay or interruption will be considered to be a suspension for failure of the Contractor to carry orders under the provisions of Paragraph 15.1.

2. If pursuant to court order, the City is temporarily or permanently prohibited from requiring the Contractor to perform any portion of the Work, the City Representative or Construction Manager may eliminate the enjoined Work pursuant to Paragraph 10.1.

7 ARTICLE 7 - CHANGES IN THE WORK

7.01 CHANGE ORDERS

A. Without invalidating the Contract and without notice to sureties or insurers, the City through the Construction Manager, may at any time or from time to time, order additions, deletions, or revisions in the Work; these will be authorized by Field Directive, Field Order, or Change Order. A Change Order will not be issued for a Field Directive unless the Construction Manager concurs with an appeal by the Contractor that such Field Directive is a change in the scope of the Contract. The Contractor shall comply promptly with the requirements for all Change Orders, Field Orders, or Field Directives. The work involved in Change Orders shall be executed under the applicable conditions and requirements of the Contract Documents. If any Field Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made by issuing a Change Order. By the acceptance of a Change Order, the Contractor waives any claim for additional time, not included in the Change Order, for the work covered by that Change Order. Additional or extra work performed by the Contractor without written authorization of a Field Order or Change Order will not entitle the Contractor to an increase in the Contract Price or an extension of the Contract Time.

B. Compensable extra work shall be that work required for the completed project, but not shown or detailed on the Contract Drawings, and not called for in the Contract Documents, and not constituting "incidental work" as defined in Section 00700-1.04, **PLANS AND SPECIFICATIONS**. Such work shall be governed by all applicable provisions of the Contract Documents. In giving instructions, the Construction Manager shall have authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the purposes of the Work; but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the City through the Construction Manager, and no claim for an addition to the total amount of the Contract shall be valid unless so ordered.

C. In case any change increases or decreases the work shown, the Contractor shall be paid for the work actually done at a mutually agreed upon adjustment to the Contract price, based upon the provisions of Section 008-1.03, **MODIFICATION PROCEDURES**.

D. If the Contractor refuses to accept a Change Order, the City may issue it unilaterally. The Contractor shall comply with the requirements of the Change Order. The City shall provide for an equitable adjustment to the Contract, and compensate the Contractor accordingly. If the Contractor does not agree that the adjustment is equitable, it may submit a claim in accordance with Section 00700-7.03, **RESOLUTION OF DISPUTES**.

7.02 DIFFERING SITE CONDITIONS

Pursuant to Public Contract Code Section 7104, the Contractor shall promptly, and before such conditions are disturbed, notify the Construction Manager in writing, of any:

A. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I disposal site in accordance with provisions of existing law.

B. Subsurface or latent physical conditions at the site differing from those indicated in the Contract documents.

C. Unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.

The City shall promptly investigate the conditions, and if it finds that the conditions do materially differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time

required for, performance of any part of the Work the City shall cause to be issued a Change Order under the procedures provided in Section 00700-7.01, **CHANGE ORDERS**.

In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties, Section 00700-7.03, **RESOLUTION OF DISPUTES**.

No claim of the Contractor under this clause shall be allowed unless the Contractor has promptly given the notice required.

7.03 RESOLUTION OF DISPUTES

It is the intent of this Contract that disputes regarding the Contract be resolved promptly and fairly between the Construction Manager and Contractor. However, it is recognized that some disputes will require detailed investigation and review by one or both parties before a determination and resolution can be reached. For the protection of the rights of both the Contractor and the City the following provisions are provided for the resolution of disputes which cannot be resolved by the Contractor and Construction Manager within two days after either party should bring verbal notice of dispute or potential dispute to the other's attention and prior to the commencement of such work.

A. Notice - If the Contractor disagrees with the Construction Manager's decision in Section 00700-1.06, **CONTRACT INTERPRETATION BY THE CONSTRUCTION MANAGER**, or in any case where the Contractor deems additional compensation or a time extension to the Contract Time is due the Contractor for work or materials not covered in the Contract or which the Construction Manager has not recognized as extra work, the Contractor shall notify the Construction Manager, in writing, of its intention to make claim. Notice pertaining to decisions provided in Section 00700-1.06, **CONTRACT INTERPRETATION BY THE CONSTRUCTION MANAGER**, or such other determinations by the Construction Manager shall be delivered in writing to the Construction Manager within no more than ten (10) days of receipt of such decision and prior to the commencement of such work. All other notices for extra work shall be filed in writing to the Construction Manager prior to the commencement of such work. Written notice shall include the words "Notice of Potential Claim" in the subject line. Such Notice of Potential Claim shall state the circumstances and the reasons for the claim, but need not state the amount.

Additionally, no claim for additional compensation or extension of time for a delay will be considered unless the provisions of Sections 00700-6.03, DELAYS, and 6.04, **TIME EXTENSIONS**, are complied with. No claim filed after the date of final payment will be considered.

Unless notice is properly given, the Contractor shall not recover costs incurred by it as a result of the alleged extra work, changed work or other situation which had proper notice been given would have given rise to a right for additional compensation. The Contractor should understand that timely notice of potential claim is of great importance to the Construction Manager and the City, and is not merely a formality. Such notice allows the City to consider preventative action, to monitor the Contractor's increased costs resulting from the situation, to marshal facts, and to plan its affairs. Such notice by the Contractor, and the fact that the Construction Manager has kept account of the work in question, shall not in any way be construed as proving the validity of the claim.

B. Response by Construction Manager - The Construction Manager shall review the "Notice of Potential Claim" and within ten (10) days of receipt of the notice shall respond to the Contractor in writing with its determination, or if it is necessary to extend this period, the Construction Manager shall notify the Contractor in writing as to when a decision will be provided.

C. Appeals to the City's Representative - In the event the Contractor disagrees with any determination of the Construction Manager provided in accordance with Section 00700-7.03B, **Response by Construction Manager**, the Contractor may, within ten (10) days of receipt of such determination, appeal the determination to the City's Representative for review. The City's Representative shall review the appeal and transmit the decision in writing to the Contractor within thirty (30) days from the date of receipt of the appeal. Failure of the Contractor to appeal the determination of the Construction Manager within said ten (10) day period shall constitute a waiver of the Contractor's right to thereafter assert claim resulting from such determination or decision.

In the event the Contractor disagrees with the determination of the City's Representative, the Contractor shall notify the Construction Manager, in writing within ten (10) days of receipt of such determination, of its intention to make claim in accordance with Section 00700-7.03G, **Resolution of Claims**.

D. Records of Disputed Work - In proceeding with a disputed portion of the Work, the Contractor shall keep accurate records of its costs, separate from costs incurred performing contract work, and shall make available to the Construction Manager, a daily summary of the hours and classification of equipment and labor utilized on the disputed work, as well as a summary of any materials or any specialized services which are used. Such information shall be submitted to the Construction Manager on a monthly basis, receipt of which shall not be construed as an authorization for or acceptance of the disputed work.

E. Submission of Claim Costs - Within thirty (30) days after the last cost of work for which the Contractor contends it is due additional compensation is incurred, but if costs are incurred over a span of more than thirty (30) days, then within fifteen (15) days after the thirtieth (30th) day and every month thereafter, the Contractor shall submit to the Construction Manager its costs incurred for the claimed matter. Claims shall be made in itemized detail and should the Construction Manager be dissatisfied with the format or detail of presentation, upon request for more or different information, the Contractor will promptly comply, to the satisfaction of the Construction Manager. If the additional costs are in any respect not knowable with certainty, they shall be estimated as best can be done. The Construction Manager shall have the right as provided in Section 008-1.04, **COST PRICING DATA AND ACCESS TO RECORDS**, to review the Contractor's records pertaining to a submitted claim. In case the claim is found to be just, it shall be allowed and paid for as provided in Section 008-1.03, **MODIFICATION PROCEDURES**.

F. Claim Meetings - From time to time the Contractor may request or the Construction Manager may call a special meeting to discuss outstanding claims should it deem this a means of possible help in the resolution of the claim. The Contractor shall cooperate and attend prepared to discuss its claims, making available the personnel, subcontractors and suppliers necessary for resolution, and all documents which may reasonably be requested by the Construction Manager.

G. Resolution of Claims - Claims pertaining to this Agreement for three hundred and seventy-five thousand dollars (\$375,000) or less which cannot be resolved between the parties shall be resolved pursuant to the provisions of Public Contract Code commencing at Section 20104.

1. Claims Not Exceeding \$375,000 - Said Code sections provide in part that: Under the law (starting at Public Contract Code Section 20104.2) construction claims of \$375,000.00 or less on local public

agency construction contracts must be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment.

The City must respond in writing to any written claim of three hundred seventy-five thousand dollars (\$375,000) or less within sixty (60) days [or, in the case of claims of less than fifty thousand dollars (\$50,000), within forty-five (45) days] of receipt of claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the City may have against the claimant.

If additional information is thereafter required, it shall be requested and provided, pursuant to Public Contract Code Section 20104.2, upon mutual agreement of the City and the claimant.

The City's written response to the claim, as further documented, shall be submitted to the claimant within thirty (30) days [or, for claims of less than \$50,000, within fifteen (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 or requested documentation, whichever is greater.

If the claimant disputes the City's written response (or if the City fails to respond within the time periods prescribed above) the claimant may notify the City, in writing, within fifteen (15) days of receipt of the City's response or within fifteen (15) days of the City's failure to respond within the times prescribed, respectively, and demand an informal settlement conference. The City must then schedule a settlement conference within thirty (30) days.

Following the settlement conference, if the claim or any portion remains in dispute, the claimant may file a claim as required by the claims statute commencing at California Government Code Section 910. The time within which a Government Code claim must be filed is tolled from the time the claimant submits the Public Contract Code claim until the time when the claim is denied.

2. Claims Exceeding \$375,000 - Unless this Contract provides otherwise, all claims between the City and the Contractor that are not resolved between the parties and are not governed by Public Contract Code Section 20104 shall be resolved according to the procedures established in Public Contract Code Section 20104 with the following exceptions:

a. The City must respond in writing to any written claim greater than three hundred seventy-five thousand dollars (\$375,000) within sixty (60) days of receipt of the claim, or may request in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the City may have against the claimant, or may advise the Contractor in writing within thirty (30) days of receipt of the claim when the review and response to the claim will be furnished.

b. The arbitration proceedings established in Public Contract Code Section 20104.4(b) and specified in Section 00700-7.03 G3, Civil Action Proceedings, shall only apply if both the City and Contractor mutually agree to arbitration.

3. Civil Action Proceedings - If a civil action is filed to resolve the claim, then between thirty (30) and sixty (60) days after the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by the parties. The parties are given fifteen (15) days to select a disinterested third person as mediator. Mediation must commence within thirty (30) days of submittal and conclude within fifteen (15) days of commencement unless the time is extended for good cause by the court.

4. Mediation of Disputes - All disputes among the parties arising under this Agreement shall be mediated before resorting to arbitration or Court action. Mediation is a process in which parties attempt to resolve a dispute by submitting it to an impartial neutral mediator who is authorized to facilitate the resolution of the dispute but who is not empowered to impose a settlement on the parties. The mediation fee, if any, shall be divided equally among the parties. Before the mediation begins, the parties agree to sign a document limiting the admissibility and arbitration or any civil action of anything said, any admission made, and any documents prepared in the course of the mediation, consistent with Evidence Code Section 1152.5 or any successor statute. The filing of a judicial action to enable the imposition of a receivership, injunction or other provisional remedy shall not constitute a waiver of the right to mediate under this provision. The mediation shall take place in Marin County, California. The mediator shall be experienced in construction law. At least 30 days before mediation, the parties will exchange those documents that are reasonably necessary to evaluate the issues and arrive at an informed resolution of the issues.

5. If the matter remains in dispute, the case must be submitted to judicial arbitration pursuant to procedures set forth in the Code of Civil Procedure commencing at Section 1141.10. Discovery is permitted consistent with the rules pertaining to judicial arbitration.

6. Should either party to this Contract bring legal action against the other, the case shall be handled by a court of competent jurisdiction in Marin County, California.

8 ARTICLE 8 - PAYMENT

8.01 BASIS OF PAYMENT

A. General - The Contractor shall accept the compensation, as herein provided, as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed Work and for performing all work contemplated and embraced under the Contract; also for loss or damage arising from the nature of the Work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work, also for all expenses incurred in consequence of the suspension or discontinuance of the Work as herein specified; and for completing the Work according to the Contract Documents. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

No compensation will be made in any case of loss of anticipated profits. This includes the event of the termination of the Contract, and therefore no compensation will be made to the Contractor for the loss of anticipated profits associated with the terminated work. Increased or decreased work involving supplemental agreements will be paid for as provided in such agreements.

Full compensation for conforming to all of the provisions of the Contract Documents shall be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefore.

B. Payment for Patents and Patent Infringement - All fees or claims for any patented invention, article, or arrangement that may be used upon, or in, any manner connected with the performance of the Work or any part thereof shall be included in the price bid for doing the work, and the Contractor and its sureties shall defend, protect, and hold the City, the Construction Manager, and Design Consultants, together with all their officers, agents, and employees harmless against liability of any nature or kind for any and all costs, legal expenses, and damages made for such fees or claims and against any and all suits and claims brought or made by the holder of any invention or patent, or on account of any patented or unpatented invention, process, article, or appliance manufactured for or

used in the performance of the Contract, including its use by the City, unless otherwise specifically stipulated in the Contract. Before final payment is made on the Contract, the Contractor shall furnish an affidavit to the City regarding patent rights for the project. The affidavit shall state that all fees and payments due as a result of the work incorporated into the project or methods utilized during construction have been paid in full. The Contractor shall certify in the affidavit that no other fees or claims exist for work in this project.

C. Payment of Taxes - The Contractor shall pay and shall assume exclusive liability for all taxes levied or assessed on or in connection with its performance of this Contract, whether before or after acceptance of the Work, including, but not limited to, State and local sales and use taxes, Federal and State payroll taxes or assessments, and excise taxes, including any taxes or assessments levied or increased during the performance period of the Work. No separate allowance will be made therefore, and all costs in connection therewith shall be included in the total amount of the Contract price.

8.02 PARTIAL PAYMENTS

A. General - In consideration of the faithful performance of the Work prosecuted in accordance with the provisions of these Specifications and the Contract, the City will pay the Contractor for all such work installed on the basis of unit prices and/or percentage completion of lump sum Bid Items. Amounts earned for lump sum work will be based on accepted Cost Breakdown.

Payments will be made by the City to the Contractor on estimates duly certified and approved by the Construction Manager, based on the Lump Sum or unit price value of equipment installed and tested, labor and materials incorporated into said permanent work by the Contractor during the preceding month. Payments will not be made for temporary construction unless specifically provided for in the Contract Documents.

Partial payments will be made monthly based on work accomplished as of a day mutually agreed to by the City and the Contractor. Additionally, the Contractor shall submit a detailed statement of the Contractor's request for payment of acceptable materials and equipment on hand in compliance with Section 00700-8.02B, Partial Payments: Inclusion of Materials on Hand. Each payment request shall list each Change Order executed prior to date of submission, including the Change Order Number.

Upon receipt of Contractor's requests for payment, the City shall act in accordance with the following:

1. The Construction Manager shall review the submitted estimates, as soon as practicable after receipt for the purpose of determining that the estimates are a proper request for payment, and shall prepare a certified estimate of the total amount of work done.
2. Any request for payment determined not to be a proper payment request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days after receipt. A request for payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the request for payment is not proper.
3. The number of days available to the City to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the City exceeds the seven (7) day return requirement set forth in Section 00700-8.02 A2 above.

If requested, the Contractor shall provide such additional data as may be reasonably required to support the partial payment request. The Construction Manager will be available to meet to discuss the partial payment request prior to its resubmittal(s). When the Contractor's estimate of amount earned conforms to the Construction Manager's evaluation, the Contractor shall submit to the Construction Manager a properly completed and signed progress payment request. The Construction Manager will submit the recommended progress payment request for the City's approval and processing. Payment

will be made by the City to the Contractor in accordance with the City's normal accounts payable procedures; the City shall retain amounts in accordance with Section 00700-8.03, **RIGHT TO WITHHOLD AMOUNTS.**

No such estimate or payment shall be required to be made, when in the judgment of the Construction Manager, the Work is not proceeding in accordance with the provisions of the Contract, or when in the Construction Manager's judgment the total value of the Work done since the last estimate amounts to less than one thousand dollars (\$1,000).

Subject to the provisions of this section, the City shall pay the Contractor within thirty (30) days after receipt of undisputed and properly submitted requests for payment from the Contractor. In accordance with Public Contract Code Section 20104.50, if the City fails to pay an undisputed request for payment within the allotted thirty (30) days, the City shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

B. Partial Payments: Inclusion of Materials on Hand - Materials, as used herein, shall be considered to be those items which are fabricated and manufactured material and equipment. Only those materials for which the Contractor can transfer clear title to the Owner will be qualified for partial payment. The Contractor may request payment of seventy-five (75) percent of the actual net cost of these materials. The request for partial payment will be subject to retention as provided elsewhere in the Contract Documents.

To receive partial payment for materials and equipment not incorporated in the Work, it shall be necessary for the Contractor to submit to the Construction Manager a list of such materials, at least seven (7) days prior to submitting the monthly estimate of amount earned for work completed. At the Construction Manager's sole discretion, it will approve items for which partial payment is to be made subject to the following:

1. Equipment and materials will only be eligible if given conditional or final acceptance by the Design Consultant and are in apparent compliance with Favorably Reviewed Shop Drawings.
2. Only materials which have received Favorable Review of shop drawings will qualify.
3. Eligible equipment or materials must be delivered and properly stored, protected, and maintained in a manner Favorably Reviewed by the Construction Manager, at the job site or an offsite location acceptable to the Construction Manager.
4. The Contractor's actual net cost for the materials must be supported by paid invoices of suppliers, or other documentation requested by the Construction Manager.
5. At the City's request, Contractor shall obtain an executed security agreement and all necessary UCC-1's as a condition of payment by City.
6. Materials or equipment delivered to the Site less than thirty (30) days prior to their scheduled incorporation in the Work shall not qualify.
7. Final payment shall be made only for materials actually incorporated in the Work and, upon acceptance of the Work, all materials remaining for which advance payments had been made shall revert to the Contractor, unless otherwise agreed, and partial payments made for these items shall be deducted from the final payment for the Work.
8. Partial payments for materials and equipment on hand shall not be deemed to be final payment for the material nor relieve the Contractor of its obligations under the Contract.

C. Effect of Payment – Payment will be made by Owner based on the Construction Manager’s observations at the Site and the data comprising the progress payment request. Payment will not be a representation that the City has:

1. Made exhaustive or continuous on-site inspections to check the quality or quantity of Work;
2. Reviewed construction means, methods, techniques, sequences or procedures;
3. Reviewed copies of requisitions received from subcontractors and material suppliers and other data requested by Owner to substantiate Contractor’s right to payment;
4. Made examination to ascertain how or for what purpose Contractor has used money previously paid on account of the Contract Sum; or
5. Accepted all or part of the Work.

8.03 RIGHT TO WITHHOLD AMOUNTS

A. Retention - The City will withhold from each of the partial payments and retain as part security, ten (10) percent of the amount earned until the final payment.

B. Other Withholds - In addition to the amount which the City may otherwise retain under the Contract, the City may withhold a sufficient amount or amounts of any payment or payments otherwise due the Contractor, as in its judgment may be necessary to cover:

1. For defective work not remedied.
2. A reasonable doubt that the Contract can be completed for the balance then unpaid.
3. Damage to another contractor or third party, or to property.
4. Failure of the Contractor to maintain Record Documents current as required in Section 01720, **PROJECT RECORD DOCUMENTS.**
5. Cost of insurance arranged by the City due to cancellation or reduction of the Contractor's insurance.
6. Failure to submit, revise, resubmit or otherwise conform to the requirements herein for preparing and maintaining a construction schedule as required in Section 008-1.06, **PROGRESS SCHEDULES.**
7. Failure to make proper submissions, as specified herein.
8. Amounts due the City from the Contractor.
9. The Contractor's neglect or unsatisfactory prosecution of the Work including additional engineering and administrative costs related to construction and/or shop drawing errors and the failure to clean up.
10. Provisions of law that enable or require the City to withhold such payments in whole or in part.
11. Stop Notice claims filed by Contractor’s subcontractors, of any tier, or its material suppliers.

When the above reasons for withhold amounts are removed, payment will be made to the Contractor for amount withheld because of them.

8.04 SECURITY SUBSTITUTION FOR WITHHOLDS

For any retention of amount earned by the Contractor under Sections 00700-8.02, **PARTIAL PAYMENTS**, or 00700-8.07, **FINAL INSPECTION AND PAYMENT**, the Contractor may substitute securities as provided in Section 22300 of the Public Contract Code, as amended, which state in part as follows:

"Provisions shall be included in any invitation for bid and in any Contract Documents to permit the substitution of securities for any moneys withheld by a public agency to ensure performance under a Contract; however, substitution of securities provisions shall not be required where federal regulations or policies, or both, do not allow the substitution of securities. At the request and expense of the contractor, securities equivalent to the amount withheld shall be deposited with the public agency, or with a state or federally chartered bank in the State of California as the escrow agent, who shall then pay those monies to the contractor. Upon satisfactory completion of the Contract, the securities shall be returned to the contractor."

"Alternatively, the contractor may request and the City shall make payment of retentions earned directly to the escrow agent at the expense of the contractor. At the expense of the contractor, the contractor may direct the investment of the payments into securities and the contractor shall receive the interest earned on the investments upon the same terms provided for in this section for securities deposited by the contractor. 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 City, pursuant to the terms of this section."

"The contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon."

The escrow agreement used hereunder shall be substantially similar to the form in Section 00630, **ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION.**

8.05 WARRANTY OF TITLE

No material, supplies, or equipment for the Work under this Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants good title to all material, 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 the Contractor, to the City free from any claim, liens, security interest, or charges. The Contractor further agrees that neither the Contractor nor any person, firm, or corporation furnishing any materials or labor for any work covered by this Contract shall have any right to a lien upon the premises or any improvement or appurtenances thereon, provided that this shall not preclude the Contractor from installing metering devices and other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. In the event of the installation of any such metering device or equipment, the Contractor shall advise the Owner as to the legal City thereof.

Nothing contained in this paragraph, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this Paragraph shall be inserted in all subcontracts and material contracts, and notice of its provisions shall be given to all persons furnishing materials for the Work when no formal Contract is entered into for such materials.

8.06 SUBSTANTIAL COMPLETION

When the Contractor considers that the Work is Substantially Complete, the Contractor shall notify the Construction Manager in writing. Upon receipt of the notification, the Construction Manager, the City and/or their authorized representatives will make inspection, to determine if the Work and administrative requirements are sufficiently complete in accordance with the Contract Documents so

the City can occupy or utilize the Work for its intended use. If items are found which prevent such use or occupancy, the Construction Manager shall notify the Contractor in writing of such items by issuing a Corrective Work Item List.

Upon the completion of such corrective work, the Contractor shall so notify the Construction Manager in writing. The Construction Manager shall inspect the Work to determine its acceptability for Substantial Completion and for determination of the status of any other items which are required to meet the terms of Substantial Completion as listed in the Contract Documents. Upon verification that the project is Substantially Complete, the Construction Manager shall prepare a Certificate of Substantial Completion and the Punch List. The Certificate shall establish the date of Substantial Completion and the responsibilities of the City and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, commencement of warranties required by the Contract Documents, and shall fix the time, not to exceed sixty (60) days, within which the Contractor shall finish all items on the Punch List or remaining work or administrative requirements accompanying the Certificate. When the preceding provisions have been approved by both the City and the Contractor, they shall sign the Certificate to acknowledge their written acceptance of the responsibilities assigned to them in such Certificate. By such acknowledgment, the Contractor agrees to pay the City's actual costs including, but not limited to, charges for engineering, inspection and administration incurred due to the failure to complete the Punch List within the time period provided in the Certificate of Substantial Completion.

8.07 FINAL INSPECTION AND PAYMENT

Upon completion of the Work, including all items on the Punch List, and upon completion of final cleaning, the Contractor shall so notify the Construction Manager in writing. Upon receipt of the notification, the Construction Manager, the City and/or their authorized representatives will make the final inspection, to determine the actual status of the Work in accordance with the terms of the Contract. If materials, equipment, workmanship or administrative requirements are found which do not meet the terms of the Contract, the Construction Manager shall prepare a Final Inspection List of such items and submit it to the Contractor. Following completion of the work to correct all items in the Final Inspection List the Contractor shall notify the Construction Manager. The Construction Manager shall, in turn, notify the City that the Work has been completed in accordance with the Contract. Final determination of the acceptability of the Work shall be made by the City. After completion of the Work, but prior to its Acceptance by the City, the last partial payment will be made to the Contractor in accordance with Section 00700-8.02, **PARTIAL PAYMENTS**.

After receipt of the last partial payment, but prior to Acceptance of the Work by the City, the Contractor shall send a letter to the Construction Manager. The letter, pursuant to California Public Contract Code Section 7100, shall state that acceptance of the final payment described below shall operate as and shall be, a release to the City, the Construction Manager, the Design Consultant, and their duly authorized agents, from all claim of and/or liability to the Contractor arising by virtue of the Contract related to those amounts. Disputed Contract claims in stated amounts previously filed as provided in Section 00700-7.03, **RESOLUTION OF DISPUTES**, may be specifically excluded by the Contractor from the operation of the release.

Following receipt of all required submittals and the Construction Manager's written statement that construction is complete and recommendation that the City accept the project, the City will take formal action on Acceptance.

Within ten (10) days of the Acceptance by the City of the completed Work embraced in the Contract, the City will cause to be recorded in the office of the County Recorder a Notice of Completion.

Thirty-five (35) days after recording the Notice of Completion of the work involved in the Contract, the City will pay the Contractor in lawful money such sums of money as may be due the Contractor including all sums retained but excluding such sums as have previously been paid the Contractor or as may be needed to cover outstanding stop notice claims or disputes. This payment will constitute the final payment to the Contractor under this Contract except for outstanding stop notice claims and disputed amounts.

In the event of a dispute between the City and the Contractor, the City may in accordance with Public Contract Code Section 7107 withhold from the final payment an amount of one hundred fifty (150) percent of the disputed amount.

****END OF SECTION****

SECTION 00800 SUPPLEMENTARY GENERAL CONDITIONS

1 ARTICLE 1 - MODIFICATIONS TO THE GENERAL CONDITIONS

1.01 TIME ALLOWED FOR COMPLETION

In accordance with the provisions of Section 00700-6.02, **CONTRACT TIME**, Substantial Completion of this Project shall be completed within **fifty (50) working days** from the date established in the Notice to proceed for the commencement of Contract Time.

1.02 DAMAGES FOR DELAYS

A. General

In accordance with the provisions of Section 00700-6.05, **LIQUIDATED DAMAGES**, for the period of time that any portion of the Work remains unfinished after the time fixed for Substantial Completion in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**, as modified by extensions of time granted by the City, it is understood and agreed by the Contractor and the City that the Contractor shall pay the City **\$1000 per day**.

1.03 MODIFICATION PROCEDURES

Should Bid Proposal Item Quantities (total of both Base and Alternative Bid for identical items) change more than 10% from stated quantities in the Bid Proposal; the City retains the sole right to negotiate change in the unit price. Any negotiated new unit price shall reflect time and material cost including surcharge values contained in Caltrans Document "Labor Surcharge and Equipment Rental Rate" book. Specifically a 33% markup for labor, 15% markup for equipment, and 15% markup for material when done by the prime Contractor or 20% markup on subcontractor material costs when done by subcontractor.

All mutually agreed to Contract Change Orders in an amount exceeding 10% of Project Contract Amount require Sausalito City Council.

1.04 COST PRICING DATA AND ACCESS TO RECORDS

a. Cost or Pricing Data consists of all facts which can reasonably be expected to contribute to sound estimates of future costs, as well as the validity of costs already incurred. Contractors must submit, and identify in writing, all cost or pricing support data, which is verifiable and factual; and must present historical or factual data upon which any judgmental costs or prices are based. The submittals should provide documentation such that a reviewer or auditor can readily understand the estimating and accounting practices being used; the type of information available and how it pertains to the pricing; and the location of support data not furnished. The Act, in essence, obligates the contractor to make known to the Construction Manager all data pertinent to the procurement action in question. The Cost or pricing Data must be sufficiently detailed to make any certification meaningful; to allow a timely and meaningful audit; and to allow for a timely, successful conclusion of negotiations.

b. Contractors must furnish sufficient information to show the precise manner in which the cost or price proposal was derived.

(1) Labor Costs. Include the crafts to be used, the number of man-hours per craft, the wage rate applicable to each craft, and the benefits paid each craft. Show payroll tax and insurance applicable to each craft.

(2) Materials and Installed Equipment. Provide the estimated or actual quantities of materials to be incorporated in the construction, together with the applicable unit costs of such materials. Similarly, furnish the quantities and unit costs of installed equipment.

(3) Construction Equipment. For contractor owned or rental equipment, include the hourly ownership rate for each piece of equipment that will be used on the project. The rate shall be in accordance with the Caltrans Document "Labor Surcharge and Equipment Rental Rate" book, if actual costs for both ownership and operating costs for each class of equipment are not available. For either type of equipment, furnish the number of hours of anticipated use on the changed work, and the hourly operating costs. Also, detail any costs associated with mobilizing or demobilizing.

(4) Subcontract Costs. Since subcontract costs are a part of the Cost or Pricing Data, present quotations/proposals in the same detail as that required of the prime contractor.

(5) Overhead. Break down the proposed overhead costs by individual cost elements, and separate field office overhead and home office overhead. If overhead is expressed as a percentage of direct costs, the contractor will furnish the basis of the proposed rate.

(6) Other Costs. Show profit, bond and taxes separately.

c. The contractor must identify cost elements as either "factual" or "judgmental." For example, equipment operating time, estimated man-hours and some material quantities may be considered judgmental. Proposed unit costs for materials and equipment, and labor wage rates, should generally be factual; however, there may be judgment involved in choosing the material or equipment being proposed, or choosing the craft or crew size needed to perform the work. It is the factual information, which is subject to post-award verification, and as such, subject to any certification by the contractor and price reductions in the event defective data is discovered.

1.05 CONTRACT ADMINISTRATION

The following project representatives are hereby designated by the City:

- A. Name of City Representative
Todd Teachout, City Engineer
415-289-4111

Email: tteachout@ci.sausalito.ca.us

- B. - ,
- C.

1.06 PROGRESS SCHEDULES

Progress schedule preparation, submittal, update, and changes shall conform to the provisions of this Section.

REQUIREMENTS

- A. Submit a schedule for the items of work and their sequencing for the entire project duration no later than 30 calendar days after the Notice to Proceed.
- B. Schedule submittals are subject to review and acceptance by the Engineer. The Engineer retains the right to withhold 20% of payments due the Contractor until the Contractor submits a schedule acceptable to the City. This withholding is in addition to any retention withheld.
- C. Submit monthly progress review and update of the schedule with each progress payment.

PREPARATION GUIDELINES

- A. The schedule shall represent a practical plan to complete the work within the contract time.
 - 1. A schedule extending beyond the contract time will not be acceptable.
 - 2. A schedule showing the work completed in less than the contract time may be found by the City to be impractical.
 - 3. Any schedule found to be impractical for the preceding reason or any other reason shall be revised by the Contractor and resubmitted.
 - 4. A schedule showing the work completed in less than the Contract time, which is found to be practical by the Owner, shall be considered to have float. The float is the time between the scheduled completion of the work and contract completion date. In this case and others, float is a resource available to both the Owner and the Contractor.
 - 5. The Contractor will provide the necessary crews and manpower to simultaneously meet the schedule requirements for constructing all facilities within the contract duration. This may require multiple crews on multiple fronts.
- B. The schedule shall clearly show the sequence and interdependence of construction activities and shall specifically indicate the start and completion of all items of work, their major components, and interim milestone completion dates.

- C. The schedule shall:
1. Be in sufficient detail to assure adequate planning and execution of the work. Activities should generally range in duration from 3 to 15 work days each.
 2. Be suitable, in the judgment of the Owner, to allow monitoring and evaluation of progress in the performance of the work.
 3. Show detailed subcontractor work activities.
 4. Be calendar time-scaled in the form of a bar chart.
- D. Submittal of the Progress Schedule shall be understood to be the Contractor's representation that the schedule meets the requirements of the Contract Documents and that the work will be executed in the sequence indicated in the schedule.

2 ARTICLE 2 - INDEMNITY AND INSURANCE

2.01 INSURANCE

Within ten (10) days after award of the Contract, the Contractor shall promptly obtain, at its own expense, all the insurance required by Section 00800-Article 2, **INDEMNITY AND INSURANCE**, and submit coverage verification for review and approval by the City prior to the City's execution of the Contract.

The Contractor shall not commence work until such insurance has been approved by the City. Such insurance shall remain in full force and effect at all times during the prosecution of the Work and until the final completion and Acceptance thereof. In addition, the Commercial General Liability Insurance shall be maintained for a minimum of five (5) years after final completion and acceptance of the Work (the "Guarantee Period"). The Notice to Proceed does not relieve the Contractor of the duty to obtain such insurance as required herein.

The Contractor shall not allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained and verified by the Contractor and submitted to the Construction Manager for the City's review and records. Subcontractors shall furnish original certificates and endorsements as verification of insurance coverage. The insurance liability limits specified in Section 00800-Article 2, **INDEMNITY AND INSURANCE**, shall apply for all subcontractors listed in Section 00430, **DESIGNATION OF SUBCONTRACTORS**. The Contractor shall designate the insurance liability limits for all other subcontractors.

Companies writing the insurance under this article shall be admitted to do business in the State of California or, if unavailable from an admitted carrier, the insurance may be acquired from otherwise eligible non-admitted company(s) admitted to do business under the Surplus Line Law of the State of California. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

None of the policies of insurance required herein shall be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior notice by certified mail return receipt requested has been given to the City.

All costs for all insurance shall be included in the Bid.

Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from its operations under this Contract. For any claims related to this Project, the Contractor's insurance coverage shall be primary insurance as respects the City, the Design Consultant, the Construction Manager, and all of their officers, officials, employees, agents and volunteers (the "Additional Insureds"). Any insurance or self-insurance maintained by an Additional Insured shall be in excess of the Contractor's insurance and shall not contribute with it.

Any failure of the Contractor to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the Additional Insureds.

The Contractor shall take out, pay for, and maintain throughout the duration of this Contract and for such additional periods as more specifically required herein the following insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, the Contractor's agents, representatives, employees or subcontractors.

A. Commercial General (including Pollution), Protection and Indemnity (marine equipment and vessels) and Automobile Liability Insurance - These coverages shall protect the Contractor from claims for bodily injury and property damage which may arise because of the nature of the Work or from operations, products or completed operations under this Contract.

1. Additional Insureds – The Commercial General Liability, Protection and Indemnity and Automobile Liability policies of insurance shall be endorsed to name as additional insureds the City of Sausalito; the Design Consultant, the Construction Manager and each of their partners, officers, employees, and agents and coverage provided to such additional insureds. These policies shall provide coverage to each of the insureds with respect to the Work. Both bodily injury and property damage insurance must be on an occurrence basis. These policies shall be endorsed to provide primary coverage to the full limit of liability stated in the declarations, and if there is any other insurance against the loss covered by said policy, that other insurance shall be excess insurance and not contribute with Contractor's policy.

2. Amount of Coverage - The bodily injury and property damage liability of the Commercial General Liability insurance shall provide coverage in the following limits of liability: \$10,000,000 on account of any one occurrence with an annual general aggregate limit of not less than \$10,000,000, and \$10,000,000 products and completed operations aggregate, combined single limit. The limits of coverage for Protection and Indemnity (for marine equipment and vessels) shall be not less than \$10,000,000 on account of any one accident arising out of the ownership, maintenance, or use of any owned or non-owned vessels. The Automobile Liability insurance policy shall provide minimum limits of \$5,000,000 per accident arising out of the ownership, maintenance, or use of any owned or non-owned vehicles. These limits shall apply separately to the Project; if the limits are not project specific, Contractor shall provide insurance with limits double the amounts set forth above.

3. Subcontractors - The bodily injury and property damage liability insurance shall not be deemed to require the Contractor to have its subcontractors named as insureds in the Contractor's policy, but the policy shall protect the Contractor from contingent liability which may arise from operations of its subcontractors.

4. Included Coverage - The above Commercial General Liability insurance shall also include the following coverage:

- a. Premises - Operations
 - b. Owner's / Independent Contractor's and Contractor's Protective
 - c. Products - Completed Operations
 - d. Personal Injury - (False Arrest, Libel, Wrongful Eviction, etc.)
 - e. Broad Form Property Damage – including to the Maximum Extent Possible, coverage for the Assumption of Liability Pursuant to Completed Operations
 - f. Separation of Insureds / Cross-Liability Provisions
 - g. Duty to Defend all Insureds
 - h. Deletion of any Limitation on Coverage for Bodily Injury or Property Damage Arising out of Subsidence or Soil or Earth Movement.
 - i. A provision that the annual general aggregate and the products and completed operations annual aggregate shall apply separately to each Project for which Contractor provides services away from premises owned by or rented to Contractor.
 - j. Pollution Legal Liability Endorsement
 - k. XCU - (Explosion, Collapse, Underground Damage) XCU may be deleted when not applicable to operations performed by the Contractor or its sub-contractors.
 - l. Blanket Contractual Liability including the Indemnification Agreement as herein stated.
5. Umbrella Policy - At the option of the Contractor, primary limits may be less than required, with an Umbrella Policy providing the additional limits needed. This form of insurance will be acceptable provided that the Primary and Umbrella Policies both provide the insurance coverages herein required, including all additional insured requirements. The umbrella policy shall provide coverage at least as broad as provided on the underlying commercial General Liability insurance.
- B. Workers' Compensation Insurance - In accordance with the provisions of Article 5, Chapter 1, Part 7, Division 2 (commencing with Section 1860) and Chapter 4, Part 1, Division 4 (commencing with Section 3700) of the Labor Code of the State of California, the Contractor is required to secure the payment of compensation to its employees and for that purpose obtain and keep in effect adequate Workers' Compensation Insurance.

The Contractor is advised 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 shall comply with such provisions and have Employers' Liability limits of \$1,000,000 per accident before commencing the performance of the Work of this Contract.

Contractor and its subcontractors shall comply with the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Worker's Compensation, before commencing the performance of the Work.

Before begins performance of the Work, the Contractor shall submit written evidence that the Contractor has obtained Workers' Compensation Insurance coverage for all persons whom it employs or may employ in carrying out the Work under this Contract. This insurance shall be in accordance with the requirements of the most current and applicable State Workers' Compensation Insurance Laws.

C. Builder's Risk Insurance - "All Risk or Special Form" Builder's Risk Insurance on the replacement cost basis, in an amount equal to the full replacement cost on a completed value basis. Such insurance shall be obtained, paid for, and maintained by the Contractor and shall cover, but shall not be limited to, fire, lightning, windstorm, hail, explosion, riot, riot attending a strike, civil commotion, smoke damage, damage by aircraft, watercraft or vehicles, vandalism and malicious mischief, theft, collapse, flood and earthquake. This insurance shall name the City, the Design Consultant, the Construction Manager and the Contractor as insureds, as their interests may appear and shall include coverage including, but not by way of limitation, for all damages of loss to the Work and to appurtenances, to materials and equipment to be incorporated into the Project while the same are in transit, stored on or off the Project site, to construction plant and temporary structures.

Pursuant to Section 7105 of the Public Contract Code, the City requires Contractor to obtain insurance providing full replacement value coverage for any damage to the Work caused by an Act of God, as defined by Section 7105(b)(2) of that Code. Builder's Risk Insurance policies shall contain the following provisions:

- (1) The City shall be named as loss payee.
- (2) The Insurer shall waive all rights of subrogation against the City.

Builder's Risk Insurance may have a deductible clause not to exceed the following limits:

- (1) The deductible for coverage for any damage to the Work caused by an Act of God, as defined by Section 7105(b) of the Public Contract Code shall not exceed five percent of the value at risk at the time of the loss. The City shall be named as an insured.
- (2) All Other Perils: \$5,000

The Contractor shall be responsible for paying any and all deductible costs. The policy shall provide the City the right to occupy the premises without termination of the policy until acceptance of the Project.

D. Proof of Coverage - Contractor shall furnish the City with certificate(s) evidencing issuance of all insurance mentioned herein, copies of the policy declaration or information page(s) and endorsements. The certificate(s) and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on Forms A-1 and B-1 as included in Section 00650, **GENERAL LIABILITY ENDORSEMENT**, Section 00651, **AUTO LIABILITY ENDORSEMENT**, or equivalent endorsement forms acceptable to the City. The certificate(s), policy declaration or information page(s), and endorsements are to be received and approved by the City before work commences. Endorsements are not required for Workers' Compensation or Builder's Risk Insurances. Such policies of insurance shall be endorsed to provide that the insurance policy shall not be cancelable, be subject to non-renewal, or otherwise be subject to material modification, except with thirty (30) days prior written notice to the City and Contractor shall also provide certificate(s) evidencing renewals of all insurance required herein, at least ten (10) days prior to the expiration date of any such insurance.

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, the Design Consultant, the Construction Manager, and all of their officers, officials, employees and agents; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

In the event of the breach of any provision of this paragraph, or in the event of any notices received which indicate any required insurance coverage will be diminished or canceled, the City, at its option,

may, notwithstanding any other provisions of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work pursuant to this Agreement.

E. Hold Harmless - The City of Sausalito and all officers and employees thereof connected with the Work, including but not limited to the City Council, shall not be answerable or accountable in any manner: for any loss or damage that may happen to the Work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the Work; for injury to or death of any person; or for damage to property from any cause except losses due to sole or active negligence of the City of Sausalito's officers or employees.

F. Indemnification - To the fullest extent allowed by law, Contractor shall defend, indemnify and hold harmless the City of Sausalito, its elected and appointed officials, the Design Consultant, Construction Manager, their employees and agents (collectively, the "Indemnified Parties"), from all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including attorney's fees and other defense costs, resulting from injury to or death sustained by any person (including Contractor's employees), or damage to property of any kind, or any other injury or damage whatsoever, which injury, death or damage arises out of or is in any way connected with the performance of the Work, regardless of the Contractor's fault or negligence, including any of the same resulting from the alleged or actual negligent act or omission, of an Indemnified Party; except that said indemnity shall not be applicable to injury, death or damage to property arising from the sole or active negligence or willful misconduct of City, its officers, agents, or servants who are directly responsible to City. This indemnification shall extend to claims asserted after termination of this Contract for whatever reason. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist.

G. In addition to any remedy authorized by law, so much of the money due the Contractor under and by virtue of the contract as shall be considered necessary by the City, may be retained by the City until disposition has been made of such suits or claims for damage.

2.02 INSURANCE DURING GUARANTEE PERIOD

Contractor shall maintain the above-described worker's compensation, commercial general liability, and property damage insurance in force during the entire period of the Guarantee Period as defined above.

2.03 INJURY OR ILLNESS REPORTS

The Contractor shall furnish the Construction Manager with a copy of the Employer's Report of Injury as required by CAL/OSHA immediately following any incident requiring the filing of said report during the prosecution of the Work under this Contract. The Contractor shall also furnish the Construction Manager with a copy of the Employer's Report of injury involving any subcontractor on this Project.

2.04 NOTIFICATION OF INSURANCE COMPANIES

The Contractor shall advise all insurance companies to familiarize themselves with all of the conditions and provisions of this Contract, and they shall waive the right of special notification of any change or modification of this Contract or of extension of time, or of decreased or increased work, or of the cancellation of the Contract, or of any other act or acts by the City or its authorized employees and agents, under the terms of this Contract, and failure to so notify the aforesaid insurance companies of changes shall in no way relieve the insurance companies of their obligation under this Contract.

3 ARTICLE 3 - TERMINATION

3.01 TERMINATION FOR DEFAULT

A. Add this language to the end of Section 00700-6.07A

4. Payments Withheld. If the City terminates the Contract for one of the reasons stated in paragraph 6.07A.1, the Contractor shall not be entitled to receive further payment until the Work is complete.

5. Payments Upon Completion. If the unpaid balance of the Contract Sum, including contract retentions, exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the City within thirty days of the City's written demand. This payment obligation shall survive termination or completion of the Contract.

3.02 TERMINATION FOR CONVENIENCE

NOTE: THIS PROVISION REPLACES 00700-6.07.B IN ITS ENTIRETY.

A. The City may, without cause, order the Contractor in writing to suspend, interrupt or terminate performance of the Work in whole or in part for such period of time as the City may determine. An adjustment may be made for an increase in the cost of performance of the Contract including profit on the increased cost of performance, if any, caused by any such suspension or interruption or termination. An equitable adjustment may be made of the price or prices specified in the Contract relating to the portion of the Work not suspended, interrupted, or terminated by notice of suspension, interruption, or termination. No adjustment shall be made to the extent:

1. That performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
2. An equitable adjustment is made or denied under another provision of this Contract.

B. Any such suspension, interruption, or termination shall be effected by delivery to the Contractor of a written notice of suspension, interruption or termination specifying the extent to which performance of work under the Contract is suspended, interrupted, or terminated and the date upon which such suspension, interruption, or termination becomes effective. The effective date shall be not less than three (3) days after delivery of the written notice. After receipt of the notice of suspension, interruption, or termination, and except as otherwise directed by the City, the Contractor shall:

1. Stop work under the Contract on the date and to the extent specified in the notice of suspension, interruption, or termination;
2. Place no further orders or subcontracts for materials, services or facilities except as necessary to complete the portion of the Work under the Contract which is not suspended, interrupted or terminated;
3. Terminate all orders or subcontracts to the extent they relate to the performance of work suspended, interrupted or terminated by notice of suspension, interruption or termination;
4. Assign to the City in the manner, at the times, and to the extent directed by the City, all the right, title and interest of the Contractor under the orders and subcontracts so suspended, interrupted or terminated. The City shall have the right, in its discretion, to settle or pay any or all claims arising out of the suspension, interruption, or termination of such orders and subcontracts;
5. Settle all outstanding liabilities and all claims arising out of such suspension, interruption, or termination of orders and subcontractors, with the approval or ratification of the City to the extent the City may so require. The City's approval or ratification shall be final for all purposes of his clause;

6. Transfer title to the City, and deliver in the manner, at the times, and to the extent, if directed by the City, the fabricated or unfabricated parts, work in process, completed work, supplies, and other materials produced as a part of, or acquired in connection with the performance of the work terminated by the notice of suspension, interruption, or termination, and the completed or partially completed plans, drawings, information, and other property, which, if the contract had been completed, would have been required to be furnished to the City;

7. Use its best efforts to sell, in the manner, at the times, and to the extent, and at the price or prices that the City directs or authorizes, any property of the types previously referred to herein, but the Contractor shall not be required to extend credit to any purchaser and may acquire any such property under the conditions prescribed and at a price or prices approved by the City. The proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the City to the Contract under this Contract or shall otherwise be credited to the price or cost of the work covered by this Contract or paid in such other manner as the City may direct;

8. Complete performance of such part of the Work as shall not have been suspended, interrupted, or terminated by the notice of suspension, interruption, or termination; and

9. Take such action as may be necessary, or as the City 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 the City has or may acquire an interest.

C. After receipt of the notice of suspension, interruption, or termination, the Contractor shall submit to the City a certified suspension, interruption, or termination claim. Such claim shall be submitted promptly but in no event later than sixty (60) days from the effective date of the notice of suspension, interruption, or termination. If the Contractor fails to submit a suspension, interruption, or termination claim within such sixty (60) day period, the City may determine, on the basis of information available to it, the amount, if any, due to the Contractor. The City shall then pay to the Contractor the amount so determined, and that payment shall constitute full compensation for all work performed and costs incurred in connection with the Project.

D. After receipt of a certified claim, the City and the Contractor may agree upon the whole or any part of the amount or amounts to be paid to the Contractor because of the total or partial suspension, interruption, or termination of the Contract. The amount may include a reasonable allowance for profit on work performed. However, such agreed amount or amounts, exclusive of costs solely attributable to the suspension, interruption or termination, shall not exceed the total Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the Contract Sum of work not suspended, interrupted, or terminated and any claims the City may have against the Contractor. Nothing in paragraph E of this section, shall be deemed to limit, restrict, or otherwise determine or effect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this paragraph.

E. After receipt of a certified claim, if the Contractor and City fail to agree on the amounts to be paid to the Contractor, the City shall determine, on the basis of the information available to it the amount, if any due, the Contractor by reason of the suspension, interruption, or termination and shall pay the Contractor the amounts determined as follows:

1. For all work specified in the Contract which is performed before the effective date of the notice of suspension, interruption, or termination, the total of:

a. The reasonable cost to the Contractor, without profit, for all contract Work performed prior to the notice of suspension, interruption, or termination, including the work done to secure the project. In

determining the reasonable cost, the City may utilize the schedule of values, contract unit prices, or lump sums, the percentage of Work completed and any other method available to it. For purposes of determining reasonable cost, deductions will be made for the cost of materials to be retained by the Contractor, amounts realized by the sale of materials, and for other appropriate credits against the cost of the Work. When in the opinion of the City the cost of an item of Work is unreasonably high, the reasonable cost to be allowed will be the estimated reasonable cost of performing such work in compliance with the requirements of the plans and specifications and excessive actual cost shall be disallowed.

b. Reasonable cost will include a reasonable allowance for project overhead and general administrative overhead not to exceed a total of ten percent (10%) of direct costs of such work.

c. A reasonable allowance for profit on the cost of the work performed as determined under subsection (1) provided the Contractor established to the satisfaction of the City that it would have made a profit had the Contract been completed and provided further, that the profit allowed shall in no event exceed five percent (5%) of the cost of the Work completed.

d. The reasonable cost to the Contractor of handling material returned to the vendor, delivered to the City or otherwise disposed of as directed by the City.

4 ARTICLE 4 - RECORD DRAWINGS AND ADDITIONAL INFORMATION

Any record or other information available at the City's offices regarding existing conditions at the Job Site may be reviewed by the Contractor upon request. The City makes no warranty as to the accuracy of the information available.

5 ARTICLE 5 - SUBSTANTIAL COMPLETION

Substantial completion of the Project as required by Section 00700-8.06, **SUBSTANTIAL COMPLETION**, requires that the following portions of the Work must be completed in accordance with the requirements of the Contract Documents:

- Completion of the Work as required by the Contract Documents so the City, the public can occupy and utilize the Project and any areas to which access has been restricted on account of the Work for their intended purpose.
- Completion of the Corrective Work Item List as described in Section 00700-8.06, **SUBSTANTIAL COMPLETION**
- All testing required by the Contract and the City's General Provisions and Specifications has been successfully completed.
- All items related to health and safety of Owner operations and maintenance staff, including warning signs, guardrails, and safety equipment shall be complete.
- All record drawings have been submitted, updated, reviewed and approved.

****END OF SECTION****

The following technical special provisions contained herein have been prepared by or under the direction of the following Registered Persons:

CIVIL



CIVIL (Section 78 Sanitary Sewer System)



SECTION 00900 TECHNICAL PROVISIONS

DIVISION I GENERAL PROVISIONS

1 GENERAL

Add to section 1-1.01:

Add or Replace the following definitions in section 1-1.07B with:

Agency: The legal entity for which the work is being performed.

Bid Book: The Specifications and Bid Documents

Department, Department of Transportation, Director, Director of Transportation: The City Council of the City of Sausalito, State of California.

Deputy Director Transportation Engineering, or Engineer: The Public Works Director of the City of Sausalito, State of California, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Holiday: Holiday shown in the following table:

Holidays	
Holiday	Date observed
New Year's Day	January 1st
Observance of Martin Luther King, Jr. birthday	3rd Monday in January
President's Day	3rd Monday in February
Observance of Memorial Day	Last Monday in May
Independence Day	July 4th
Labor Day	1st Monday in September
Veterans Day	November 11th
Thanksgiving Day	4th Thursday in November
Friday after Thanksgiving Day	Day after Thanksgiving Day
Christmas Day	December 25 th
New Year's Eve Day	December 31 st

When a holiday falls on Saturday, the preceding Friday shall be observed. When a holiday falls on Sunday, the following Monday shall be observed. When December 25 falls on Saturday, Friday, December 24, shall be observed as the Christmas holiday and Thursday, December 23, shall be observed as the Christmas Eve holiday. When December 25 falls on Sunday, both Friday and Monday shall be observed as holidays. When December 25 falls on Monday, Monday shall be observed as the Christmas holiday and December 22 shall be observed as the Christmas Eve holiday.

State: "Agency" as defined above.

State Highway Engineer: The Public Works Director, City of Sausalito, State of California.

Transportation Building, Sacramento: 420 Litho Street, Sausalito, California.

AA

2 BIDDING

Delete section 2-1.15, "DISABLED VETERAN BUSINESS ENTERPRISES".

Delete section 2-1.18, "SMALL BUSINESS AND NON-SMALL BUSINESS SUBCONTRACTOR PREFERENCES".

Delete the 1st and 2nd paragraphs of section 2-1.24.

Delete section 2-1.27, "CALIFORNIA COMPANIES"

^^

3 CONTRACT AWARD AND EXECUTION

Delete section 3-1.08, "SMALL BUSINESS PARTICIPATION REPORT"

Delete section 3-1.11, "PAYEE DATA RECORD"

^^

5 CONTROL OF WORK

Replace section 5-1.02 with:

5-1.02 CONTRACT COMPONENTS

See Section 1.07, "Order of Precedence", of these special provisions for the revised governing rank of project documents.

In the event of a discrepancy between units shown on plans, in the special provisions and in the proposal, the units shown in the proposal shall govern.

If a discrepancy is found or confusion arises, submit an RFI.

Add to Section 5-1.13A:

Comply with the provisions in Section 7108.5 of the Business and Professions Code concerning prompt payment to subcontractors.

Pay all subcontractors not later than 7 days of receipt of each progress payment, unless otherwise agreed to in writing, the respective amounts allowed the contractor on account of the work performed by the subcontractors, to the extent of each subcontractors interest therein. Any violation of Section 7108.5 of the Business and Professional Code shall constitute a cause for disciplinary action and shall subject the licensee to a penalty payable to the subcontractor, of 2 percent of the amount due per month for every month that payment is not made. In any action for the collection of funds wrongfully withheld, the prevailing party shall be entitled to his or her attorney's fees and costs.

The agency shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions of the contract work, as determined by the agency, and pay retainage to the prime

contractor based on these acceptances. Return all monies withheld in retention from a subcontractor within 7 days after receiving payment for work satisfactorily completed, even if the other contract work is not completed and has not been accepted in conformance with these specifications. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor or deficient subcontract performance or noncompliance by a subcontractor.

Delete section 5-1.13C, "Disabled Veteran Business Enterprises"

Delete section 5-1.13D, "Non-Small Businesses"

Replace 3rd paragraph of section 5-1.26 with:

No staking will be provided for this project.

Delete section 5-1.27E "Change Order Bills"

Replace 6th paragraph of section 5-1.36B with:

Replace any damaged plants at least 20 days before contract acceptance.

Furnish plants and maintain the specified plants at your expense.

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7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Add to Section 7-1.03:

Take all reasonable precautions to restrict operations to the least area of work possible and do not disturb private property beyond the areas of work.

Post "No Parking" signs in residential areas forty-eight (48) hours prior to the commencement of closing of parking area.

It is your responsibility to keep the public informed of the project work and to minimize obstructions and inconvenience to the public. The City will require a General Project Notice to all involved property owners/tenants to be issued at the beginning of the project. This notice should describe the project improvements and the expected progress schedule for installation of these improvements and be pre-approved by representative of City Engineer and then either mailed or hand carried to all involved Property Owners/Tenants.

No work may begin under contract until City Engineer’s representative has approved Progress Schedule, General Project Notice, 48 Hour “No Parking” Notice, Street Construction Notice, and Traffic Control Plan. Time required for review and approval of these items shall not constitute a basis for time extension.

When individual streets or groups of streets are being surface treated, you may close those streets to traffic, subject to the following conditions:

1. Ensure that sufficient parking is available on adjacent streets not being surface treated or overlaid to provide parking for residents on streets subject to closure. Residents or business traffic shall not be required to walk distances exceeding 300 feet.

- 2. 48 Hour "No Parking" Notice placed on barricades. Notice to be pre-approved by representative of City Engineer. Police Department to be informed in a timely manner, so that they can checkout Notice locations to ensure City's ability to enforce Notice.
- 3. Street Construction Notice bright yellow door hanger to be utilized to give involved Property Owners/Tenants notice of pending street work to start in 48 hours. This notice should detail the scope, time schedule for upcoming work, Contractor name and contact information, as well as City representative name and contact information, and be pre-approved by representative of City Engineer. The Contractor will be expected to deliver a new Street Construction Notice door hanger should unexpected problems arise that either change the work scope or work schedule. Obtain the Engineer's approval of the Notice to Residents prior to distribution. A Friday that occurs prior to a holiday (three day) weekend shall not be considered as a business day for the purpose of this section. If any street identified in the Notice to Residents is not treated on the date and time identified, residents of that street and all streets requiring use of that street shall be re-notified of the new date and time of closure or limited access.
- 4. City of Sausalito Community Wide Email System shall be used, in a cooperative effort with the City Public Works Department, to inform involved Property Owners/Tenants of pending street work scheduled for the following week.

Arrange for towing and removal of any vehicles which interfere with construction operations. Tow vehicles to the nearest street with available parking which is not subject to that day's work. Do not tow any vehicles to the towing companies impound lot.

You will be compensated \$75.00 for each vehicle towed or removed to accommodate that day's work.

The \$75.00 paid per tow vehicle shall include full compensation for furnishing all labor, overhead, coordination with a towing company, materials, tools, equipment and incidentals and for doing all work involved in towing vehicles complete in place, including all overhead as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The total number of vehicles to be towed has been estimated. The Contractor may tow more or fewer vehicles than is indicated in the Bid Book. The number of vehicles towed will be adjusted up or down to agree with the number of vehicles actually towed. In no event shall the \$75.00 per vehicle be modified.

No towing will be done or allowed unless the Contractor has given the full 48-hour notice to the residents and/or businesses adjoining the streets to be treated.

Provide a 5 foot wide pedestrian path over the wet surface treatment as directed by the Engineer. The path shall be placed with construction paper or sand blotted and shall be well marked with barricades, traffic cones and signs as directed by the Engineer.

At driveways serving businesses, emergency and public facilities, provide at least a 16 foot wide vehicle access strip across the surface treatment area. The access strip shall be constructed using aggregate material in such a manner that the vehicles are protected from damage from the treatment and the surface treatment is not damaged by the vehicle traffic. The access strip shall be well marked with barricades, traffic cones and signs as directed by the Engineer.

Emergency vehicles shall be permitted to pass through the work area without delay at all times.



8 PROSECUTION AND PROGRESS

Replace "20 days of Contract approval" in the 1st paragraph of section 8-1.02C(5) with:

10 days after contract award by the City Council

Replace "Allow 20 days" in the 1st paragraph of section 8-1.02C(5) with:

Allow 5 days

Replace "15 days after Contract approval" in the 1st paragraph of section 8-1.02D(5) with:

10 days after contract award by the City Council

Replace "Contract approval" in the 2nd paragraph of section 8-1.02D(5) with:

Contract award by the City Council

Replace section 8-1.03 with:**8-1.03 PRECONSTRUCTION CONFERENCE**

Attend a preconstruction conference with key personnel, including your assigned representatives, major superintendents, and major subcontractors at 420 Litho Street, California 94553 at a time determined by the Engineer. Be prepared to discuss the scope of work, contract drawings, specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution of and the satisfactory completion of the project as required. Submit documents as required before the preconstruction conference. You must submit the following items before work can begin:

- Baseline schedule using working days format.
- Traffic control plan as described in Section 8-1.15, "Traffic Control Plan".
- The on-site authorized representative (and home phone number) who has complete authority to represent you.
- A list naming each official (with title) who is authorized to sign contract change orders, daily extra work reports, and the final pay estimate.
- A list of first tier subcontractors, suppliers, manufacturers, or truckers.
- Three copies of a list of all the materials which are to be used on the project, their source, and the name(s) and address(es) of the supplier(s). Please identify each material by contract item number and name.
- A statement giving the name and address of each subcontractor together with the item number, description, unit cost, and total cost of each item to be subcontracted.
- A list giving the description, identification number, make, model number, and other necessary information for each piece of equipment to be used on this project. (Do not send listing of all items in equipment pool)
- Three copies of the "Storm Water Pollution Prevention Plan" if required by these special provisions.
- Any other submittals and/or approvals required by the Standard Specifications and these special provisions.

The legend for the types of funding on construction project funding signs must read as follows and in the following order:

Supported with
Marin County Measure A Funds
Your Measure A Sales Tax Dollars at Work

The size of the legend on construction project funding signs must be as shown in Appendix. Do not add any additional information unless authorized.

12-2.03 CONSTRUCTION

Install 4 Type A construction project funding signs at the locations designated by the Engineer before starting major work activities visible to roadway users.

Install 8 Type B portable construction project funding signs at the locations designated by the Engineer. These signs will need to be moved time to time, as per the directions from the Engineer.

When authorized, remove and dispose of construction project funding signs upon completion of the project.

12-2.04 PAYMENT

Construction funding signs will be paid, as shown in the bid item list.

Replace item #4 of the 1st paragraph of section 12-3.06C(2) with:

4. Post embedment must be 2.5 feet and backfilled with native material. Compact by tamping.

Add to section 12-3.06D:

Payment for construction area signs will be made in increments of the contract lump sum price for this item of work in the following manner:

Initial Increment: 60 percent of the lump sum price upon satisfactory completion of installation of signs.

Final Increment: Balance of the lump sum price upon satisfactory completion of removal of signs.

Add to section 12-4.01:

Local authorities are defined as, but not limited to, City of Sausalito Police Department, California Highway Patrol, local Fire Department, United States Post Office, local waste management companies, Emergency Response Companies and/or all businesses or regular users whose ability to perform their daily job will be affected by road closures, detours or general work by the Contractor.

Local Authority and Special Needs Contacts are as follows:

City of Sausalito Police Department	General number	415-289-4170
Sausalito Fire District	General number for road closures	415-289-4155
California Highway Patrol	General office number	
Garbage Service?	Local Garbage Service	415-332-3646
Marin Transit/Golden Gate Transit		415-455-2000

Payment for transporting bicyclists through a 1-way reversing traffic control work zone is included in the payment for traffic control system.

Add to section 12-4.02A:

Do not make lane closures if the atmospheric visibility is less than 1,000 feet.

No street shall be closed to traffic before 9:00 a.m. or after 4:30 p.m., unless approved by the Engineer.

No street shall be closed to traffic until immediately prior to the application of the seal coat or slurry seal.

No street shall be closed to traffic for more than three hours after being treated unless approved by the Engineer.

Emergency vehicles shall be permitted to pass through the work area without delay at all times.

The Contractor shall obtain the Engineer's approval for all street closures, flagging arrangements, detours and traffic signing, including special signs, at least two working days prior to such closure.

At least five working days in advance of street closures, all emergency services, public transportation services, post office, City and local district school bus drivers shall be notified by the Contractor in writing of the locations, time and date of the closure. Engineer to receive copies of the written notification. In case of schedule changes, the emergency services, etc. shall be notified by telephone at least two days in advance of the street closure. In addition, the Contractor will notify the City of Sausalito Police Department [415-289-4170], California Highway Patrol, Southern Marin Fire Protection District [415-289-4156], United States Post Office, local waste management companies, Emergency Response Companies and/or all businesses or regular users whose ability to perform their daily job will be affected by road closures, detours or general work done by the Contractor.

No street shall be closed the day of garbage collection. Obtain garbage collection schedule from the Engineer.

Street closures shall not cause residents to walk distances exceeding 300 feet to access their homes from available parking.

The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays and designated legal holidays; after 3:00 p.m. on Fridays and the day preceding designated legal holidays; and when construction operations are not actively in progress.

A minimum of 1 paved traffic lane not less than 12 feet wide must be open for use by traffic. When construction operations are not actively in progress, not less than 2 of these lanes shall be open to public traffic.

Personal vehicles of your employees must not be parked on the traveled way or shoulders, including sections closed to traffic.

If work vehicles or equipment are parked within 6 feet of a traffic lane, close the shoulder area with fluorescent orange traffic cones or portable delineators. Place the cones or delineators on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. Use at least 9 cones or delineators for the taper. Use a W20-1, "Road Work Ahead," W21-5b, "Right/Left Shoulder Closed Ahead," or C24(CA), "Shoulder Work Ahead," sign mounted on a crashworthy, portable sign support with flags. The sign must be placed as ordered by the Engineer and at least 48 by 48 inches in size. If a cone or delineator is displaced or overturned, immediately restore the device to its original position or location.

Your vehicles are subject to the provisions under chapter 13, "Vehicular Crossings," of the Vehicle Code.

Check the location of traffic control devices, especially at the beginning of the work period and periodically throughout the work day, to ensure that the devices are properly placed and maintained.

Conduct all operations with the least possible obstruction and inconvenience to the public. Do not begin work that cannot be completed within a workday with due regards to the rights of the public.

Work shall be accomplished in such a manner as to provide access to all intersecting streets and adjacent properties whenever possible. If access to any property cannot be provided, then adequate nearby parking shall be provided and maintained until direct access can again be restored. If during the course of the work, it

is necessary to restrict access to certain driveways for an extended period of time, notify the affected residents, in writing, at least forty-eight (48) hours in advance.

To minimize the disruption to public traffic, you shall:

1. Permit local traffic to pass through the work with the least possible inconvenience or delay.
2. Maintain existing driveways, commercial and residential, within the vicinity of the work area, keeping them open and in good, safe condition at all times.
3. Remove or repair any condition resulting from the work that might impede traffic or create a hazard.
4. Keep existing traffic signal and roadway lighting systems in operation throughout the construction work.

To protect the right of abutting property owners, the Contractor shall:

1. Conduct the construction so that the least inconvenience as possible is caused to abutting property owners.
2. Maintain ready access to houses or businesses along the line of work, including ramps.
3. Notify all parties at least seven (7) days, and again in 48 hours, in advance of work which would affect their access.

The City will monitor work scattered over various locations of the City, thereby representing a possible safety hazard or inconvenience to residents and visitors. Should, in the opinion of representatives of the City, the inconvenience to residents and visitors be too great, the City will direct you to shut down specific locations of work until other locations of work are completed.

If more than one crew is working at various locations through the City at the same time, provide similar and adequate traffic control and traffic control devices such as signs, barricades, etc. and workmanship for each individual crew to control the traffic.

Where paving work is being performed on the roadway to be used by traffic, complete the work to the finished grade before the end of the workday unless otherwise permitted by the Engineer.

Provide adequate safeguards, safety devices, protective equipment, and any other needed actions to protect life, health, and safety of the public, and to protect property in connection with the performance of the work covered by the contract. Perform any measures or actions the City or the Engineer may deem necessary to protect the public and property.

The full width of the traveled way shall be open for use by public traffic on designated legal holidays, and when construction operations are not actively in progress.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon your written request, if in the opinion of the Engineer public traffic will be better served and the work expedited. Such deviations shall not be adopted until the Engineer has indicated his written approval. All other modifications will be made by contract change order.

Days and Hours of Work: Limit your work, including warming up and servicing equipment, receiving deliveries and other related work, to Monday through Friday from 8:00AM to 5:00PM, except that no work shall occur on City of Sausalito holidays as defined elsewhere in these Special Provisions. A traffic control plan shall also be prepared for approval and adoption.

Standard Plans "TA-10" through "TA-13" are attached to the bid documents (see Appendix) as a minimum required traffic control plan for lane closure on two lane roadways. Public safety is the first priority of City Engineer in any construction project throughout the City. If the City Engineer determines proper provisions for safe traffic control are not being provided or maintained, the City Engineer will deduct \$2000 per day per location of those operations that traffic control has not been provided adequately and will suspend the work until the proper level of traffic control is achieved. In cases of your serious or willful disregard for safety of the public or your employees, the City Engineer

may proceed forthwith to place the traffic control measures in proper condition and deduct the cost thereof from monies due or becoming due the contractor.

Add to section 12-4.03:

For each 10-minute interval, or fraction thereof past the time specified to reopen the closure, the Agency will deduct \$100.00 per interval from moneys due or that may become due to the Contractor under the contract.

Replace section 12-5 with:

12-5 TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE

12-5.01 GENERAL

Section 12-5 includes specifications for closing traffic lanes, ramps, or a combination, with stationary lane closures on multilane roadways. The traffic control system for a lane closure or a ramp closure must comply with the details shown.

Traffic control system includes signs.

12-5.02 MATERIALS

Not Used

12-5.03 CONSTRUCTION

Each vehicle used to place, maintain, and remove components of a traffic control system on a multilane roadways must be equipped with a Type II flashing arrow sign that must be in operation whenever the vehicle is being used for placing, maintaining, or removing the components. Vehicles equipped with a Type II flashing arrow sign not involved in placing, maintaining, or removing the components if operated within a stationary-type lane closure must display only the caution display mode. The sign must be controllable by the operator of the vehicle while the vehicle is in motion. If a flashing arrow sign is required for a lane closure, the flashing arrow sign must be operational before the lane closure is in place.

For multilane roadways, do not place the traffic cones shown to be placed transversely across closed traffic lanes and shoulders.

Whenever components of the traffic control system are displaced or cease to operate or function as specified from any cause, immediately repair the components to the original condition or replace the components and restore the components to the original location.

For a stationary lane closure made only for the work period, remove the components of the traffic control system from the traveled way and shoulder, except for portable delineators placed along open trenches or excavation adjacent to the traveled way at the end of each work period. You may store the components at selected central locations designated by the Engineer within the limits of the roadway.

All lane closures shall be made in accordance with lane closure chart submitted by the Contractor and approved by the City prior to commencement of operations.

12-5.04 PAYMENT

Traffic control system for lane closure is paid for as traffic control system.

The requirements in section 4-1.05 for payment adjustment do not apply to traffic control system. Adjustments in compensation for traffic control system will be made for an increase or decrease in traffic control work if ordered and will be made on the basis of the cost of the necessary increased or decreased traffic control. The adjustment will be made on a force account basis for increased work and estimated on the same basis in the case of decreased work.

A traffic control system required by change order work is paid for as a part of the change order work.

**Replace section 12-8 with:
12-8 TEMPORARY PAVEMENT DELINEATION**

12-8.01 GENERAL

Section 12-8 includes specifications for placing, applying, maintaining, and removing temporary pavement delineation.

Painted traffic stripe used for temporary delineation must comply with section 84-3. Apply 1 or 2 coats.

Temporary signing for no-passing zones must comply with section 12-3.06.

12-8.02 MATERIALS**12-8.02A General**

Not Used

12-8.02B Temporary Lane Line and Centerline Delineation

Temporary pavement markers must be the same color as the lane line or centerline markers being replaced. Temporary pavement markers must be one of the temporary pavement markers on the Authorized Material List for short-term day or night use, 14 days or less, or long-term day or night use, 180 days or less.

12-8.02C Temporary Edge Line Delineation

Temporary, removable, construction-grade striping and pavement marking tape must be one of the types on the Authorized Material List. Apply temporary, removable, construction-grade striping and pavement marking tape per the manufacturer's instructions.

12-8.03 CONSTRUCTION**12-8.03A General**

Whenever work activities obliterate pavement delineation, place temporary or permanent pavement delineation before opening the traveled way to traffic. Place lane line and centerline pavement delineation for traveled ways open to traffic. On multilane roadways, freeways, and expressways, place edge line delineation for traveled ways open to traffic.

Establish the alignment for temporary pavement delineation, including required lines or markers. Surfaces to receive an application of paint or removable traffic tape must be dry and free of dirt and loose material. Do not apply temporary pavement delineation over existing pavement delineation or other temporary pavement delineation. Maintain temporary pavement delineation until it is superseded or you replace it with a new striping detail of temporary pavement delineation or permanent pavement delineation.

Place temporary pavement delineation on or adjacent to lanes open to traffic for a maximum of 14 days. Before the end of the 14 days, place the permanent pavement delineation. If the permanent pavement delineation is not placed within the 14 days, replace the temporary pavement markers with additional temporary pavement delineation equivalent to the striping detail specified for the permanent pavement delineation for the area. The Department does not pay for the additional temporary pavement delineation.

When the Engineer determines the temporary pavement delineation is no longer required for the direction of traffic, remove the markers, underlying adhesive, and removable traffic tape in a manner that does not damage the final layer. Remove temporary pavement delineation that conflicts with any subsequent or new traffic pattern for the area.

12-8.03B Temporary Lane Line and Centerline Delineation

Whenever lane lines or centerlines are obliterated, the minimum lane line and centerline delineation must consist of temporary pavement markers placed longitudinally at intervals not exceeding 24 feet. The temporary pavement markers must be temporary pavement markers on the Authorized Material List for short-term day or

You are responsible for penalties assessed or levied on you or the City as a result of your failure to comply with the provisions in this section "Water Pollution Control," including, but not limited to, compliance with the applicable provisions of the Manuals, and Federal, State, and local regulations and requirements as set forth therein. See "Retention of Funds" sub-section later in this special provision.

Penalties as used in this section shall include fines, penalties and damages, whether proposed, assessed, or levied against you or the City, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of citizen suits. Penalties shall also include payments made or costs incurred in settlement for alleged violations of the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

Add to section 13-2 "Water Pollution Control Program":

Notwithstanding any other remedies authorized by law, the City may retain money due to you under the contract, in an amount determined by the City, up to and including the entire amount of Penalties proposed, assessed, or levied as a result of your violation of the Permit, the Manuals, or Federal or State law, regulations or requirements. Funds may be retained by the City until final disposition has been made as to the Penalties. You shall remain liable for the full amount of Penalties until such time as they are finally resolved with the entity seeking the Penalties.

Retention of funds for failure to conform to the provisions in this section, "Water Pollution Control," shall be in addition to the other retention amounts required by the contract. The amounts retained from you for failure to conform to provisions in this section will be released for payment on the next monthly estimate for partial payment following the date when an approved WPCP has been implemented and maintained, and when water pollution has been adequately controlled, as determined by the Engineer.

When a regulatory agency identifies a failure to comply with the Permit and modifications thereto, the Manuals, or other Federal, State or local requirements, the City may retain money due to you, subject to the following:

- A. The City will give you 30 days' notice of the City's intention to retain funds from partial payments which may become due to you prior to acceptance of the contract. Retention of funds from payments made after acceptance of the contract may be made without prior notice to you.
- B. No retention of additional amounts out of partial payments will be made if the amount to be retained does not exceed the amount being withheld from partial payments pursuant to Section 9-1.16 of the Standard Specifications and these special provisions.
- C. If the City has retained funds, and it is subsequently determined that the City is not subject to the entire amount of the Costs and Liabilities assessed or proposed in connection with the matter for which the retention was made, the City shall be liable for interest on the amount retained for the period of the retention. The interest rate payable shall be 6 percent per annum.

During the first estimate period that the Contractor fails to conform to the provisions in this section, "Water Pollution Control," the Department may retain an amount equal to 25 percent of the estimated value of the contract work performed.

Add to section 13-3.01A:

The goal of these requirements is to prevent the pollution of storm water run-off on construction projects by keeping pollution out of storm drains, reducing the exposure and discharge of materials and wastes to storm water and by reducing erosion and sedimentation. Storm drains discharge run-off directly to creeks and the bay without treatment. The Contractor shall comply with all Federal, State, and local provisions of any permits applicable to the proposed work and with any requirements of the Engineer due to observed field conditions at the time the work takes place.

The Contractor shall submit a Storm Water Pollution Prevention Plan (SWPPP) to the Engineer for approval at least 48 hours prior to start of construction.

Add to section 13-3.01B(2)(a):

A. The following requirements shall be met on all projects within the City of Sausalito.

1) Non-hazardous Material/Waste Management

a) Designated Area

The Contractor shall propose designated areas of the project site for approval by the Engineer, suitable for material delivery, storage and waste collection to the maximum practicable extent, are near construction entrances and away from catch basins, gutters, drainage courses and creeks.

b) Granular Material

The Contractor shall store granular material at least 10 feet away from catch basins and curb returns.

The Contractor shall not allow granular material to enter the storm drains or creeks.

When rain is forecast within 24 hours or during wet weather, the Contractor is required to cover granular material with a tarpaulin and to surround the material with sand bags.

c) Dust Control

Dust control shall be in accordance to Section 10, "Dust Control" of the Standard Specifications.

d) Street Sweeping

At the end of each working day or as directed by the Engineer, the Contractor shall clean and sweep roadways and on site paved areas of materials attributed to or involved in the work. The Contractor shall not use water to flush down streets in place of street sweeping.

e) Recycling

The Contractor shall recycle aggregate material, asphalt concrete and Portland Cement Concrete at an approved recycling site.

f) Disposal

At the end of each working day, the Contractor shall collect all scrap, debris and waste materials and dispose of such materials properly.

The Contractor shall inspect dumpsters for leaks and contact trash hauling contractors to replace or repair dumpsters that leak.

The Contractor shall arrange for regular waste collection before dumpsters overflow.

2) Hazardous Material/Waste Management

a) Storage

The Contractor shall label and store all hazardous materials, such as pesticides, paints, thinners, solvents and fuels and all hazardous wastes, such as waste oil and anti-freeze.

The Contractor shall store all hazardous materials and all hazardous waste according to the County of Marin Regulations.

The Contractor shall keep an accurate up-to-date inventory of hazardous material and hazardous wastes stored on site to assist emergency response personnel if there is a hazardous material incident.

b) Usage

When rain is forecast within 24 hours or during wet weather, the Contractor shall not apply chemicals in outside areas.

The Contractor shall not over apply pesticides or fertilizers and shall follow material manufacturer's instructions regarding uses, protective equipment, ventilation, flammability and mixing of chemicals.

c) Disposal

The Contractor shall arrange for regular hazardous waste collection to comply with time limits on storage of hazardous waste.

The Contractor shall dispose the hazardous waste only at authorized and permitted Treatment, Storage and Disposal Facilities and use only licensed hazardous waste haulers to remove the waste off-site, unless quantities to be transported are below applicable threshold limits for transportation specified in State and Federal Regulations.

3) Spill Prevention and Control

- a) The Contractor shall keep a stockpile of spill cleanup materials, such as rags or absorbents, readily accessible on site.
- b) The Contractor shall immediately contain and prevent leaks and spills from entering storm drains and properly clean up and dispose of the waste and clean up materials.
- c) The Contractor shall not wash any spilled material into streets, gutters, storm drains, or creeks and shall not bury spilled hazardous materials.
- d) The Contractor shall report any hazardous materials spill to the City of Sausalito Engineering Department at (415)-289-4106.

4) Vehicle/Equipment Cleaning

- a) The Contractor shall not perform vehicle or equipment cleaning on site or in the street using soaps, solvents, degreasers, steam cleaning equipment or equivalent methods.
- b) The Contractor shall perform vehicle or equipment cleaning, with water only, in a designated, bermed area that will not allow rinse water to run off-site or into streets, gutters, storm drains or creeks.

5) Vehicle/Equipment Maintenance and Fueling

- a) The Contractor shall perform maintenance and fueling of vehicles or equipment in a designated, bermed area or over a drip pan that will not allow run-off of spills into the storm water system.
- b) Use secondary containment, such as a drip pan to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed or poured.
- c) Keep a stockpile of spill clean up materials, such as rags or absorbents, readily accessible on site.
- d) Clean up leaks and spills of vehicles or equipment fluids immediately and dispose of the waste and clean up materials as hazardous waste.
- e) Do not wash any spilled material into streets, gutters from drains, or creeks and shall not bury spilled hazardous.

- f) Report any hazardous materials spill to the City of Sausalito.
 - g) Inspect vehicles and equipment arriving on site for leaking fluids and shall promptly repair leaking vehicles and equipment. Drip plans shall be used to catch leaks until repairs are made.
 - h) Recycle waste oil and anti-freeze to the maximum practical extent.
 - i) Comply with Federal, State and City requirements or aboveground storage tanks.
- 6) Contractor Training and Awareness
- a) The Contractor shall train all employees/subcontractors on the storm water pollution prevention requirements contained in these Specifications.
 - b) Inform subcontractors of the storm water pollution prevention contract requirements and include appropriate subcontract provisions to ensure that these requirements are met.
 - c) Post warning signs in areas treated with chemicals.
 - d) Paint new catch basins, constructed as part of the project, with "No Dumping" or as directed by the Engineer.

B. Activity Specific Requirements

The following requirements shall be met on all projects with the City of Sausalito which includes the listed activities.

- 1) Paving Operations
 - a) Project Site Management

When rain is forecast 24 hours or during wet weather, the Engineer may prevent the Contractor from paving.

The Engineer may direct the Contractor to protect drainage courses by using control measures, such as earth dike, straw bale and sand bag to divert run-off or trap and filter sediment.

The Contractor shall place drip pans or absorbent material under paving equipment when not in use.

The Contractor shall cover catch basins and manholes when paving or applying a seal coat or tack coat.

- b) Paving Waste Management

The Contractor shall not sweep or wash down excess sand or screenings (placed as part of a sand seal, chip seal or to absorb excess oil) into gutters, storm drains or creeks. Instead, the Contractor shall either collect the sand and screenings and return it to the stockpile or dispose of it in a trash container. The Contractor shall not use water to wash down fresh asphalt concrete pavement.

- 2) Saw Cutting
 - a) During saw cutting, the Contractor shall cover or barricade catch basins using control measures, such as filter fabric, straw bales, sand bags and fine gravel dam to keep slurry out of the storm drain system. When protecting a catch basin, the Contractor shall ensure that the entire opening is covered.
 - b) The Contractor shall shovel, absorb or vacuum saw cut slurry continuously during saw cut operations, and completely pick up waste before moving to the next location or at the end of each working day, whichever is sooner.
 - c) If saw cut slurry enters catch basins, the Contractor shall remove the slurry from the storm drain system immediately and submit a written incident report to the Engineer documenting date, time, location, personnel involved, and the remediation measures taken.

- 3) Contaminated Soil Management

- a) On all projects involving grading or excavation, the Contractor shall look for contaminated soil as evidence by site history, discoloration, odor, differences in soil properties, abandoned underground tanks or pipes or buried debris. If the project is not within an area of known soil contamination and no evidence of soil contamination is found, then testing of the soil shall only be required if directed by the Engineer. The Contractor shall follow Section 36-2,B.4.b below if contamination is found.
 - b) If the project is within an area of known soil contamination or evidence of soil contamination is found, then soil from grading or excavation operations shall be tested. The soil shall be managed as required by the Engineer.
- 4) Concrete, Grout and Mortar Waste Management

a) Material Management

The Contractor shall store concrete, grout and mortar away from drainage areas and ensure that these materials do not enter the storm drain system.

b) Concrete Truck/Equipment Wash Out

The Contractor shall not wash out concrete trucks or equipment into streets, gutters, storm drains or creeks.

The Contractor shall perform wash out of concrete trucks or equipment off-site or in a designated area on site where water will flow onto dirt or into a temporary pit in a dirt area. The Contractor shall let the water percolate into the soil and dispose of the hardened concrete in a trash container. If a suitable dirt area is not available, then the Contractor shall collect the wash water and remove it off-site.

c) Exposed Aggregate Concrete Wash Water

The Contractor shall avoid creating run-off by draining water from washing of exposed aggregate concrete to a dirt area. If a suitable dirt area is not available, then the Contractor shall filter the wash water through straw bales or equivalent material before discharging to the storm drain.

The Contractor shall collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in a trash container.

5) Painting

a) Painting Clean Up/Designated Area

The Contractor shall conduct cleaning of painting equipment and tools in a designated area that will not allow run-on of storm water or run-off of spills.

The Contractor shall not allow wash water from cleaning of painting equipment and tools into streets, gutters, storm drain or creeks.

b) Water-Based Paint

The Contractor shall remove as much excess paint as possible from brushes, rollers and equipment before starting clean up.

To the maximum practicable extent, the Contractor shall dispose of wash water from aqueous cleaning of equipment and tools to the sanitary sewer.

Otherwise, the Contractor shall direct wash water onto dirt area and spade in.

Health & Safety Code § 7050.5

Add to section 14-2.02A:

Archaeological materials are the remains of past human activity including historic-period archaeological materials and prehistoric Native American archaeological materials. Nonhuman fossils are not archaeological materials unless they show direct evidence of human use or alteration or when found in direct physical association with archaeological materials

Historic-period archaeological materials include cultural remains beginning with initial European contact in California but at least 50 years old and include:

1. Trash deposits or clearly defined disposal pits containing tin cans, bottles, ceramic dishes, or other refuse indicating previous occupation or use of the site
2. Structural remains of stone, brick, concrete, wood, or other building material found above or below ground
3. Human skeletal remains from the historic period, with or without coffins or caskets, including any associated grave goods

Prehistoric Native American archaeological materials include:

1. Human skeletal remains or associated burial goods such as beads or ornaments
2. Evidence of tool making or hunting such as arrowheads and associated chipping debris of fine-grained materials such as obsidian, chert, or basalt
3. Evidence of plant processing such as pestles, grinding slabs, or stone bowls
4. Evidence of habitation such as cooking pits, stone hearths, packed or burnt earth floors
5. Remains from food processing such as concentrations of discarded or burnt animal bone, shellfish remains, or burnt rocks used in cooking

Add to section 14-9.02A:

All construction machinery and vehicles shall be properly tuned. Any machinery or vehicle when not in use shall not be idled unnecessarily.

Add to section 14-9.03A:

All dust-producing work and unpaved construction sites shall require at a minimum watering in the late morning and at the end of the workday; the frequency of watering shall be increased if wind speeds exceed 15 mph.

1. Water trucks shall be available on site at all times.
2. Sweepers shall be onsite during milling operations and as directed by the Engineer.
3. Contractor shall maintain dust control to the satisfaction of the Engineer, seven (7) days a week, 24 hours per day.
4. The Engineer at his discretion may require sprinkling at any time or place.

Add to section 14-9.03A:

Full compensation for conforming dust control shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

Delete section 14-10.02 "SOLID WASTE DISPOSAL AND RECYCLING REPORT"**Add to the 1st paragraph of section 14-11.02B:**

Nothing in these special provisions shall relieve the Contractor of the responsibility for compliance with Federal, State, and local laws regarding storage, handling, transportation, and disposal of hazardous wastes.

Replace section 15-2.02B(3) with:**15-2.02B(3) Cold Planing Asphalt Concrete Pavement****15-2.02B(3)(a) General**

At all locations shown on the plans, schedule cold planing activities to ensure that cold planing, compaction of base, placement of HMA, and reopening the area to traffic is completed during the same work shift:

If you do not complete HMA placement before opening the area to traffic, you must:

1. Construct a temporary HMA taper to the level of the existing pavement
2. Place HMA during the next work shift
3. Submit a corrective action plan that shows you will complete cold planing and placement of HMA in the same work shift. Do not restart cold planing activities until the Engineer approves the corrective action plan.

15-2.02B(3)(b) Materials

Use the same quality of HMA for temporary tapers that is used for the HMA overlay or comply with the specifications for minor HMA in section 39.

15-2.02B(3)(c) Construction**15-2.02B(3)(c)(i) General**

Do not use a heating device to soften the pavement.

The cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width. If the cutter head width is wider than the cold plane area shown, submit to the Engineer a request for using a wider cutter head. Do not cold plane unless the Engineer approves your request.
2. Equipped with automatic controls for the longitudinal grade and transverse slope of the cutter head and:
 - 2.1. If a ski device is used, it must be at least 30 feet long, rigid, and a 1-piece unit. The entire length must be used in activating the sensor.
 - 2.2. If referencing from existing pavement, the cold planing machine must be controlled by a self-contained grade reference system. The system must be used at or near the centerline of the roadway. On the adjacent pass with the cold planing machine, a joint-matching shoe may be used.
3. Equipped to effectively control dust generated by the planing operation
4. Operated so that no fumes or smoke is produced.

15-2.02B(3)(d) Payment

Full compensation for all cold planning shall be considered as included in the various items of work requiring cold planing, and no separate payment will be made therefor.

Add to section 15-2.02C(1):

Do not apply black paint as a method for removing existing striping.

During the process of removing existing striping if you unnecessarily remove a previous surface treatment which reveals another traffic stripe, you will be responsible at your own expense to remove the additional striping and provide a smooth roadway surface which is free of the previous traffic stripe.

Replace section 15-2.02C(2) with:**15-2.02C(2) Remove Traffic Stripes and Pavement Markings Containing Lead**

Residue from removing traffic stripes and pavement markings through grinding or other methods contains lead from the paint or thermoplastic. The average lead concentrations are less than 1,000 mg/kg total lead and 5 mg/L soluble lead. This residue:

1. Is a nonhazardous waste
2. Does not contain heavy metals in concentrations that exceed thresholds established by the Health and Safety Code and 22 CA Code of Regs
3. Is not regulated under the Federal Resource Conservation and Recovery Act (RCRA), 42 USC § 6901 et seq.

Submit a lead compliance plan under section 7-1.02K(6)(j)(ii).

Payment for a lead compliance plan is not included in the payment for existing facilities work.

Payment for handling, removal, and disposal of pavement residue that is a nonhazardous waste is included in the payment for the type of removal work involved.

Replace section 15-2.02C(3) with:**15-2.02C(3) Payment**

Remove traffic stripe and pavement markings will not be measured or paid for.

Replace section 15-3.03 with:**15-3.03 CONSTRUCTION**

Remove concrete to the depth necessary to facilitate its complete removal. The average roadway concrete thickness is believed to be 5".

Existing concrete must be cut to a true line when new concrete is joined to existing concrete.

Where no joint exists between the concrete facility to be removed and the concrete to remain in place, use a power-driven saw to cut the concrete on a neat line to a depth equal to or greater than the bottom of the existing concrete.

For sidewalk and curb ramp replacement, remove concrete to a score mark, expansion joint, or weakened plane joint.

Replace section 15-3.04 with:**15-3.03 PAYMENT**

Remove Concrete Pavement (Roadway) per Square Yard- Inch Thickness shall include full compensation for removing Portland Cement Concrete pavement, as described in this section including saw-cutting, removal and disposal of existing concrete pavement per one-inch thick concrete and no additional compensation will be allowed therefore. **As an example, if the contractor bids \$2/SY.INCH Thickness to remove 100 square yards that turns out to be 4"thick, contractor pay quantity is 100SY X \$ 2/SY.INCH Thickness X 4 Inches= \$800.**

Compensation for all other concrete demolition and removal, including curb ramps, curb and gutter, sidewalk, and any other concrete other than roadway concrete shall be considered as included in the various contract items of work, and no separate payment will be made therefor.

Replace section 15-6.15 with:**15-6.15 SURVEY MONUMENTS**

All official survey monuments or benchmarks shall be carefully preserved. If a monument or benchmark is anticipated to be disturbed, reference its location and elevation to at least four short ties (set iron pipes) and



DIVISION V SURFACING AND PAVEMENTS

37 BITUMINOUS SEALS

Add to section 37-2.01A:

Terminal blend rubber modified seal coat includes applying heated terminal blend rubber modified binder, followed by heated screenings pre-coated with asphalt binder.

Replace section 37-2.01B with:

37-2.01B Definitions

Scrap tire rubber modifier: Scrap tire rubber modifier must be 100% of ground or granulated scrap tire crumb rubber. Scrap tire crumb rubber must be from any combination of:

1. Automobile tires
2. Truck tires

Replace section 37-2.01C(5) with:

37-2.01C(5) Terminal Blend Rubber Modified Seal Coat

Identify your independent testing laboratory for the Engineer's approval at least 21 days prior to the start of the project. Your laboratory must participate in the AASHTO Proficiency Sample Program.

For each delivery of terminal blend rubber modified binder to the job site, submit a certificate of compliance and a copy of the specified test results.

Submit MSDS for each component/ingredient of the terminal blend rubber modified binder.

At least 15 days before use, submit:

1. Four 1-quart cans of mixed terminal blend rubber modified binder
2. Terminal blend rubber modified binder formulation and data as follows:
 - 2.1. Source and grade of asphalt binder
 - 2.2. Source and type of scrap tire rubber
 - 2.3. Certified Percentage of scrap tire rubber modifier by weight of the total terminal blend rubber modified binder – minimum of 15.0%
 - 2.4. Test results for the specified quality characteristics
 - 2.5. Minimum reaction time and temperature

Submit a certified volume or weight slip for each delivery of terminal blend rubber modified binder.

Submit a certificate of compliance and accuracy verification of test results for viscometers.

When determined by the Engineer, submit notification 15 minutes before each viscosity test or submit a schedule of testing times.

Submit the log of terminal blend rubber modified binder viscosity test results each day of terminal blend rubber modified seal coat work.

Replace "Reserved" in section 37-2.01D(1) with:

Equipment used in producing terminal blend rubber modified binder must be permitted for use by local air quality agencies.

Replace section 37-2.01D(4) with:**37-2.01D(4) Terminal Blend Rubber Modified Seal Coat**

Each stockpile of uncoated screenings must be sampled and tested for compliance with these special provisions. Make available all stockpiles to the Department for Quality Assurance testing and notify the Engineer a minimum of 1 full working day prior to pre-coating. Notification shall include the address, date, and start time of pre-coating activities. Do not begin pre-coating activities until a representative from the Department's is onsite and observing pre-coating activities. If pre-coating of screenings starts prior to the time stated in the notification such that the Agency's representative is not present and actively observing pre-coating activities, all screenings pre-coated during this time will be rejected.

Maintain discrete stockpiles at the asphalt plant no larger than 1 day's haul or 500 tons, whichever is less.

A stockpile of screenings will be rejected by the Engineer if any of the following occurs:

- Quality Assurance testing did not meet requirements or was not performed prior to pre-coating.
- Adding screenings to tested/passed stockpile which is cause to reject the entire stockpile.
- Screenings have not been stockpiled in accordance with these special provisions, or made available for Quality Assurance testing.

Test and submit results at least once per 50 tons of terminal blend rubber modified binder production.

Within 14 days of starting the terminal blend rubber modified seal coat operation, your independent testing laboratory shall conduct the Vialit Test Method for aggregate in Chip Seals, French Chip for the retention requirement and submit a signed copy of the test results to the Engineer. The report will not be considered for acceptability testing. The Vialit Test Method is available at:

www.dot.ca.gov/hq/esc/ctms/pdf/Vialit_Test.pdf

Within 4 business days of sampling, unless otherwise specified such as viscosity tests, your independent testing laboratory will conduct quality control testing on the terminal blend rubber modified binder and screenings for all specifications listed in these special provisions.

Submit all quality control test results to the Engineer within 7 days of the initial sampling.

Replace "Reserved" in section 37-2.02G with:**37-2.02G Terminal Blend Rubber Modified Binder****37-2.02G(1) General**

Terminal blend rubber modified binder must be a combination of asphalt binder, asphalt modifier, and scrap tire rubber modifier and shall be terminally blended to meet PG 76-22TR. Do not field blend terminal blend rubber modified binder.

The blending equipment must allow the determination of weight percentages of each terminal blend rubber modified binder ingredient.

Modified Binder Specification for Hot Applied Chip Seal Applications ^a

Property	AASHTO Test Method	Grade
		PG 76-22 TR ^b
Original Binder		
Flash Point, Minimum °C	T 48	230
Solubility, Minimum % ^c	T 44 ^c	97.5
Viscosity at 135°C, Maximum, Pa·s	T 316	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T 315	76 1.00
RTFO Test, Mass Loss, Maximum, %	T 240	1.00
RTFO Test Aged Binder		
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T 315	76 2.20
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum (delta), %	T 315	Note f 80
Elastic Recovery ^g , Test Temp., °C Minimum recovery, %	T 301	25 65
PAV ⁿ Aging, Temperature, °C	R 28	110
RTFO Test and PAV Aged Binder		
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum G* sin(delta), kPa	T 315	31 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, MPa Minimum M-value	T 313	-12 300 0.300

Notes:

- a. Do not modify binder using acid modification.
- b. Supplier is required to certify 15% minimum scrap tire rubber modifier in binder.
- c. The Department allows ASTM D 5546 instead of AASHTO T44.
- f. Test temperature is the temperature at which G*/sin(delta) is 2.2 kPa. A graph of log G*/sin(delta) plotted against temperature may be used to determine the test temperature when G*/sin(delta) is 2.2kPa. A graph of (delta) versus temperature may be used to determine delta at the temperature when G*/sin(delta) is 2.2kPa. The Engineer also accepts direct measurement of (delta) at the temperature when G*/sing(delta) is 2.2 kPa.
- g. Tests without a force ductility clamp may be performed.
- h. "PAV" means Pressurized Aging Vessel.

The percentage of tire rubber, by weight of the total modified binder, shall be 15.0 percent. Rubber shall consist of 100% California scrap tire rubber and shall consist of ground or granulated rubber derived from any combination of automobile tires and truck tires. Use of tire buffing shall not be permitted.

Replace section 37-2.02H(4) with:**37-2.02H(4) Terminal Blend Rubber Modified Seal Coat**

Screenings shall be clean and free from dirt, vegetation matter, and other deleterious substances.

Before pre-coating with asphalt binder and when tested under California Test 202, screenings for terminal blend rubber modified seal coat must have the gradation shown in the following table:

Terminal Blend Rubber Modified Seal Coat Screenings Gradation

Sieve sizes	Percentage passing by weight
	Fine 3/8" max
1/2"	100
3/8"	85-100
No. 4	0-15
No. 8	0-5
No. 200	0-2

Screenings must have the values for the properties shown in the following table:

Seal Coat Screenings

Properties	Test method	Value
Cleanness value, min	California Test 227	80
Durability, min	California Test 229	52

Add item 1.5 to the list in section 37-2.03B(1):

1.5. Tarpaulins to cover pre-coated screenings when haul distance exceeds 30 minutes or ambient temperature is less than 65 degrees F.

Replace section 37-2.03B(2) with:**37-2.03B(2) Terminal Blend Rubber Modified Seal Coat**

Equipment for terminal blend rubber modified seal coat must include and comply with the following:

1. Self-propelled distributor truck. The truck must have the following features:
 - 1.1. Heating unit
 - 1.2. Internal mixing unit
 - 1.3. Pumps that spray terminal blend rubber modified binder within 0.03 gal/sq yd of the specified rate
 - 1.4. Fully circulating spray bar that applies terminal blend rubber modified binder uniformly
 - 1.5. Tachometer
 - 1.6. Pressure gages
 - 1.7. Volume measuring devices
 - 1.8. Thermometer
 - 1.9. Observation platform on the rear of the truck for an observer on the platform to see the nozzles and unplug them if needed.
2. Under supports for scale bearing points for scale structures where the total load, the live load plus dead load is less than 17 tons, must be constructed as follows:
 - 2.1. Use 4 legs. Total load on any leg may not exceed 14.5 psi.

- 2.2. Use structural grade steel with a minimum cross sectional dimension of 20 inches and a minimum thickness of 1.5 inches.
- 2.3. Construct under supports in a way that they do not move or deflect during production operations.
- 2.4. Install mechanical indicating elements level, plumb, and rigidly mounted on the under supports.
- 2.5. Prevent saturation of the ground under the scale with adequate drainage and provide support of 14.5 psi at each support.
- 2.6. Scale structure may be installed using concrete under supports and comply with Section 9.

Add to section 37-2.03D:

Prior to obliterating any pavement delineation (traffic stripes, pavement markings, and pavement markers), that is to be replaced on the same alignment and location, reference the pavement delineation with a sufficient number of control points to reestablish the alignment and location of the new pavement delineation. The references shall include the limits or changes in striping pattern, including one- and 2-way barrier lines, limit lines, crosswalks and other pavement markings.

Remove all existing temporary and permanent pavement markers and pavement markings no more than 2 calendar days prior to terminal blend rubber modified seal coat application.

Remove all vegetation from cracks in pavement surface and at the interface of the pavement and gutter pan prior to sweeping.

In the event that a scheduled street should become wet due to rain, fog, a water main break, or any other reason, the street shall be re-scheduled for construction no sooner than three (3) days after the surface has dried. "No Parking" signs must be re-posted the minimum 24 hours before work resumes, and residents must be re-noticed as specified in Section 7 "Legal Relations and Responsibility to the Public" of these special provisions.

Replace section 37-2.03E with:

37-2.03E Pre-coating Screenings

Clean the drum of all fine materials prior to pre-coating operations. For terminal blend rubber modified seal coat, screenings must be preheated from 260 to 325 degrees F. Coat with any of the asphalts specified in the table titled "Performance Graded Asphalt Binder" in section 92. Coat at a central mixing plant. The asphalt must be from 0.5 to 1.0 percent by weight of dry screenings. The Engineer approves the exact rate.

Plant must be authorized under California Test Method 109 and the Department's material plant quality program.

Do not stockpile preheated or pre-coated screenings.

Replace section 37-2.03F with:

37-2.03F Applying Binder

37-2.03F(1) General

For areas not accessible to a truck's distributor bar, apply the binder with a squeegee, rake or other means authorized by the Engineer.

Prevent spray on existing pavement not intended for seal coat or on previously applied seal coat. Use a material such as building paper and remove the material after use. At longitudinal joints, you may overlap the binder applications before application of screenings if the overlap is dispersed with squeegees or rakes.

Prevent spray on curbs, sidewalks, driveways, or any other unintended areas. Remove any binder overspray by the end of the day it was applied as shown on the plans.

Align longitudinal joints between seal coat applications with designated traffic lanes. Overlap longitudinal joints by not more than 4 inches.

Replace section 37-2.03F(6) with:**37-2.03F(6) Terminal Blend Rubber Modified Binder**

Apply terminal blend rubber modified binder immediately after the reaction period. At the time of application, the temperature of terminal blend rubber modified binder must be from 330 to 375 degrees F.

Apply terminal blend rubber modified binder at a rate from 0.28 to 0.40 gal/sq yd. The Engineer approves the exact rate.

Apply terminal blend rubber modified binder when the atmospheric temperature is from 60 to 105 degrees F and the pavement surface temperature is at least 55 degrees F. Do not apply terminal blend rubber modified binder when the pavement is damp or wet or when the weather conditions are unsuitable.

Do not apply terminal blend rubber modified binder unless there are sufficient screenings available to cover the terminal blend rubber modified binder within 2 minutes. Intersections, turn lanes, gore points, and irregular areas must be covered within 5 minutes.

Do not apply terminal blend rubber modified binder when weather or road conditions are unsuitable, including high wind or when the pavement is damp. In windy conditions you may adjust the distributor bar height and distribution speed, and use shielding equipment, if the Engineer authorizes your request.

Replace the 1st paragraph of section 37-2.03G(1) with:**37-2.03G(1) General**

Prevent vehicles from driving on terminal blend rubber modified binder before spreading screenings.

Broom back or blend screenings at longitudinal joints to eliminate difference in elevation. The joints shall be free from ridges and depressions and shall have a uniform appearance consistent with adjacent sealed surface. Correct any defects at your expense.

Replace section 37-2.03G(4) with:**37-2.03G(4) Terminal Blend Rubber Modified Seal Coat**

At the time of application, screenings for terminal blend rubber modified seal coat must be from 225 to 325 degrees F.

Spread screenings at a rate from 18 to 26 lbs/sq yd. The exact rate will be approved by the Engineer. Spread to within 5 percent of the approved rate.

Spread screenings within 50 feet of the application of the terminal blend rubber modified binder on the pavement surface unless otherwise approved by the Engineer. Restrict trucks hauling screenings off freshly placed screenings until ready to dump screenings into the spreader.

Replace section 37-2.03H(1) with:**37-2.03H(1) General**

Remove piles, ridges, or unevenly distributed screenings. Repair permanent ridges, bumps, or depressions in the finished surface. Spread additional screenings and roll if screenings are picked up by rollers or vehicles.

Seal coat joints between adjacent applications of seal coat must be smooth, straight, uniform, and completely covered. Longitudinal joints must be at lane lines and not overlap by more than 4 inches. Blend the adjacent applications by brooming.

A coverage is the number of passes a roller needs to cover the width. A pass is 1 roller movement parallel to the seal coat application in either direction. Overlapping passes are part of the coverage being made and are not part of a subsequent coverage. Do not start a coverage until completing the previous coverage.

Before opening to traffic, finish seal coat in the following sequence:

1. Perform initial rolling consisting of 1 coverage with a minimum of 3 pneumatic-tired rollers
2. Perform final rolling consisting of 3 coverage's with pneumatic-tired rollers
3. Broom excess screenings from the roadway and adjacent abutting areas

Do not reprocess excess screenings into the project. Dispose of excess screenings off the job site. Dispose of swept screenings at least 150 feet from any waterway.

Replace section 37-2.03H(2) with:

37-2.03H(2) Terminal Blend Rubber Modified Seal Coat

Perform initial rolling within 90 seconds of spreading screenings. Do not spread screenings more than 200 feet ahead of the initial rolling.

For final rolling, you may request use of a steel-wheeled roller weighing from 12 to 14 tons, static mode only.

Prevent overlapping double thickness at transverse joints due to stopping and starting your operations by stopping the screenings spreader short of this joint, leaving a small strip of uncovered modified binder. All reasonable precautions shall be taken to avoid skips and overlaps at joints. Correct any defect at your expense by use of a shovel and/or broom prior to continuing operations.

Apply terminal blend rubber modified seal coat in such a manner that the joint between the newly seal coated pavement and an existing pavement surface is neat and uniform in appearance. The cut-off of seal coat shall be made on building paper or similar material spread over the surface.

Sweep a minimum one foot strip with a self-propelled kick broom along the edge of the roadway prior to seal coating the next lane. All loose aggregate shall be brushed back onto the lane just after seal coating.

Replace section 37-2.03I with:

Seals coat surfaces must be maintained until the final placement of the slurry seal. Maintenance must include brooming to maintain a surface free of loose screenings, to distribute screenings over the surface so as to absorb any free asphaltic material, to cover any areas deficient in cover coat material, and to prevent formation of corrugations

Brooming must not displace screenings set in asphaltic material.

Use a minimum of three self-propelled power brooms on the job site. Two power brooms will be used to sweep excess screenings from those streets that received a seal coat application, and one power broom will be used to clean the street surface of surrounding streets outside of the project area to collect tracked and loose screenings. Remove any loose screenings on sidewalks, driveways, landscaped areas, and all other adjacent properties manually or by any other means acceptable to the Engineer.

The exact time of brooming will be determined by the Engineer. As a minimum, brooming will be required at the following times:

1. On 2-lane 2-way roadways, from 1 to 2 hours after traffic, controlled with pilot cars, has been routed on the seal coat or after completion of rolling operation
2. On multilane roadways, from 1 to 2 hours after screenings have been placed
3. In addition to previous brooming, immediately before opening any lane to public traffic, not controlled with pilot cars
4. As the 1st order of work on the morning following the application of screenings on any lane that has been open to public traffic not controlled with pilot cars.
5. Following the brooming as the 1st order of work on the morning after the application of screenings, an additional brooming will be completed between 10:00 a.m. and 12:00 p.m. and another brooming between 2:00 p.m. and 5:00 p.m. on the day after application.
6. No more than 1 calendar day prior to the placement of a slurry seal.

For 2-lane 2-way roadways under 1-way traffic control, upon completion of secondary rolling, public traffic must be controlled with pilot cars and routed over the new seal coat for a period of 1 to 2 hours. The Engineer will determine the exact period of time.

Schedule the operations so that seal coat is placed on both lanes of the traveled way each work shift and so that 1-way traffic control is discontinued 1 hour before darkness. At the end of the work shift, the end of the seal coat on both lanes must generally match.

On multilane roadways, initial brooming must begin after the screenings have been in place for a period of 1 to 2 hours.

Post temporary signs indicating "LOOSE GRAVEL" once a street has received screenings. The type, quantity, and locations of the signs will be approved by the Engineer. Signs will remain in place until that street has been slurry sealed.

Add to section 37-2.04:

Screenings for terminal blend rubber modified seal coat are measured by coated weight after they are preheated and pre-coated with asphalt binder.

If recorded batch weights are printed automatically, the bid item for screenings for terminal blend rubber modified seal coat are measured using the printed batch weights, provided:

1. Total aggregate weight for screenings per batch is printed
2. Total asphalt binder weight per batch is printed
3. Each truckload's zero tolerance weight is printed before weighing the first batch and after weighing the last batch
4. Time, date, mix number, load number and truck identification are correlated with a load slip
5. A copy of the recorded batch weights is certified by a licensed weighmaster and submitted to the Engineer
6. Weigh tags are produced at the hot plant where the screenings were stockpiled, heated, and coated.

Submit tags which include the printed batch weights no later than the day after delivery has been made. Tags received after 5:00 p.m. the day after delivery will be rejected and not paid.

Screenings for terminal blend rubber modified seal coat is paid for as Screenings (Hot Applied).

Terminal blend rubber modified seal coat is measured by separating the weight of the pre-coated screenings and terminal blend rubber modified binder.

No payment will be made for quantities of screenings or terminal blend rubber modified binder which exceed 105% of the calculated quantity required to cover the application area shown on the plans in compliance with the approved mix design and these special provisions.

Add to section 37-3.01D(1):

Provide copies of your emulsified asphalt supplier's product quality control program which includes the following:

1. Frequency of sampling
2. ASTM test method and sampling procedures
3. Number of samples tested per production unit
4. Production unit size
5. Calculate moving average compilation of the five most recent tests
6. Names of qualified technicians who will perform sampling and testing

No single aggregate grading test shall represent more than 500 tons or one day's production, whichever is smaller. Supply the Engineer with test results and split samples from each production unit of aggregate.

Show laboratory test results on individual materials, comparing their values to those required by these special provisions. Clearly show the proportions of aggregate, mineral filler (minimum and maximum), water (minimum and maximum), additive(s) usage and asphalt based on the dry aggregate weights. The emulsion content to be used shall be determined from the design asphalt binder content and the asphalt solids content of the emulsion to be used.

Once the materials are approved, no substitutions will be permitted unless first tested and once again approved by the laboratory preparing the design and the Engineer.

Provide to the Engineer the following information:

1. Quantity of emulsion used in each batch.
2. Quantity of emulsion used daily.
3. Copies of all aggregate delivery tags.

If the proportions of the aggregate or emulsion do not meet the mix design, or the appearance of the surface treatment is inconsistent, then suspend work immediately.

Replace Last Sentence of the 1st Paragraph of section 37-3.01D(2) with:

Calibration must comply with the procedures included in the Appendix.

Add to section 37-3.01D(4)(a):

Submit a signed original laboratory report of a mix design covering the specific materials to be used on the project at the preconstruction meeting. The laboratory report shall be approved no more than one year prior to the bid opening.

Add to section 37-3.01D(4)(b):

Slurry Seal Emulsion Percentage

Type of Aggregate	Range
II	12-18

Add to section 37-3.02A:

Aggregate must be black colored and volcanic in origin as supplied by George Reed, Table Mountain Plant, Sonora, CA or approved equal. Do not use grey or light colored aggregate.

Aggregate for Slurry Seal must be Type II.

Aggregate must be sound, durable crushed stone or crushed gravel and approved mineral filler.

Mineral filler must be Portland Cement or aluminum sulphate and be considered as part of the blended aggregate. Only use mineral filler to improve the workability of the mixture or gradation of the aggregate.

Maintain discrete stockpiles of aggregate at the project site or staging area no larger than 1 day's application quantity or 500 tons, whichever is less.

Each stockpile of aggregate must be sampled and tested for compliance with these special provisions. Make available all stockpiles to the Department for Quality Assurance testing and notify the Engineer a minimum of 1 full working day prior incorporation into the slurry seal.

A stockpile of aggregate will be rejected by the Engineer if any of the following occurs:

- Quality Assurance testing did not meet requirements or was not performed prior to incorporation into the slurry seal.
- Adding aggregate to a tested/passed stockpile which is cause to reject the entire stockpile.
- Aggregate has not been stockpiled in accordance with these special provisions, or made available for Quality Assurance testing.

Add to section 37-3.02B(1):

Asphaltic emulsion for slurry seal must be polymer modified asphaltic emulsion.

Replace the 1st paragraph of section 37-3.03C(5)(a) with:

Use a continuous self-loading mixing machine except you may use truck mounted mixer spreaders on any of the following:

1. Radii
2. Side streets
3. Gore areas
4. Areas requiring hand work

Add to section 37-3.03A:

If necessary for workability, use a set-control agent that will not adversely affect the slurry seal.

Use admixtures when necessary to control the mixing and setting rates of the mixture. The admixture, the amount to be added, and the methods by which it is to be added, must be approved by the Engineer before the admixture is used.

Water, and set-control agent, if used, shall be added to ensure proper workability and (a) permit a traffic flow, without the assistance of a pilot car, on the slurry seal no more than 1 hour after placement without the occurrence of bleeding, raveling, separation or other distress, and (b) prevent development of bleeding, raveling, separation or other distress within 15 days after placing the slurry seal.

Wherever final sweeping or brooming of the slurry seal surface is complete, place permanent traffic stripes, markers, and pavement markings within 10 days.

Add to 1st paragraph in section 37-3.03C(1):

Maintain all equipment, tools, and machines to be used in the performance of this project in a satisfactory working order at all times.

Maintain a backup mixing machine in good working order on the project at all times, except when continuous self-loading mixing machines are used.

Add to 1st paragraph in section 37-3.03C(2):

10. Emulsion tank calibrated with a stick gauge or other measuring device that allows for an instant and accurate measurement of the volume. Equipment must have water pressure system and fog type spray bar adequate for complete fogging of the surface preceding spreading equipment.

Add to section 37-3.03D(2)(a):

Remove vegetation from cracks in pavement and at the interface of pavement and gutter prior to sweeping. Use weed spray (Pramitol or equivalent) a minimum of two weeks prior to surface treatment.

After cleaning the existing surface, fog with water to pre-wet the surface ahead of the surface treatment application. The entire surface must be damp with no apparent runoff.

Replace "Slurry Seal Spread Rates Table in section 37-3.03D(4)(b) with:

Type of Aggregate	Range (lbs dry aggregate/sq yd)
Type II (Black Rock)	14-18

Replace section 37-3.03D(4)(a)(ii):

37-3.03D(4)(a)(ii) Weather Conditions

Do not place slurry seal if either the pavement or atmospheric temperature is below 55 degrees F. Only apply slurry seal when the atmospheric temperature is above that listed below for the corresponding wind velocity (average wind velocity measured with a hand-held anemometer).

Minimum Atmospheric Temperature per Average Wind Velocity

(Degrees F)	(mph)
55	0
59	5
63	10
67	15
71	20

Do not place slurry seal if rain or fog is imminent or the air temperature is expected to be below 40 degrees F within 24 hours after placement.

Add to section 37-3.03:

37-3.03E CLEAN UP

Clean all concrete surfaces of any surface treatment splash over in compliance with the plans.

Gutters shall be cleaned the same day the surface treatment is placed.

Remove all aggregate at stockpile locations that are no longer active (will not be used within 3 days).

Sweep all streets that have been surface treated using a self-propelled power broom. A sweeping schedule will be approved by the Engineer. At a minimum the following sweepings must be performed:

- Within 7 calendar days after a street has been surface treated.
- Between 7 and 14 calendar after a street has been surface treated.
- No more than 1 calendar day prior to installation of traffic striping and pavement markings.

Replace section 37-3.04 with:

37-3.04 PAYMENT

37-3.04A General

Section 9-1.06 "Changed Quantity Payment Adjustments" will not apply to the slurry seal bid items.

37-3.04B Slurry Seal

Slurry seal is measured separately by the weight of the aggregate and asphaltic emulsion. The weight of added water and set-control additive are not measured.

No payment will be made for quantities of aggregate and/or asphaltic emulsion which exceed 105% of the calculated quantity required to cover the application area shown on the plans in compliance with the approved mix design.

If test results using CT 362 for the residual asphalt content in the asphaltic emulsion do not comply within a tolerance of -1% to +2% of the approved mix design then the following remedies or deductions will apply:

- Apply an additional slurry seal at your expense when the residual asphalt content is below acceptable tolerance.
- Deduct \$10.00 per ton of asphaltic emulsion for each 0.1% or portion thereof that the residual asphalt content is above acceptable tolerance.
- Deduct 25% of the bid price per ton of asphaltic emulsion if the residual asphalt content is greater than 3.0% of the approved mix design.
- If test results for aggregate grading or sand equivalent do not comply with the specifications, you may remove the installed slurry seal represented by the test results or request it remain in place with a payment deduction.
- If test results for both aggregate grading and sand equivalent do not comply with the specifications, a deduct of \$6.00 per ton of aggregate will be applied. An aggregate grading or cleanness value test represents 500 tons or 1 day's production, whichever is less.

Add to Section 37-5.01A

Work covered by this section includes cleaning out, herbicide sprayed, and sealing of cracks in existing asphalt concrete pavement not subject to cold planning. Crack sealing shall be performed as follows:

Add to Section 37-5.02

Crack treatment material shall be Type 4.

Herbicide shall be Roundup or approved equivalent. Add yellow dye to facilitate inspection. Apply subject to all applicable laws.

Add to Section 37-5.03

Treat cracks according to the following:

- Road sections indicated for "Crack Sealing": treat cracks ¼-inch wide and greater
- Road sections indicated for "Slurry Seal": treat cracks ¼-inch wide and greater
- Road sections indicated for "Cape Seal": treat cracks ½-inch wide and greater

Clean cracks to a minimum depth of 1/2-inch.

Cracks shall be routed prior to applying crack sealant. Width of routing shall be ¼-inch wider than the crack width. The depth of routing shall be equal to the crack width of the routing plus ¼".

Cracks shall not be sealed until 10 days have elapsed since herbicide application.

Seal cracks from the bottom up. Apply material so it is ¼-inch below the adjacent pavement surface. All crack sealing shall be done prior to surface treatments.

Do not allow traffic on the material until it has cured or until it has been sanded to prevent tracking.

AA

Replace section 38 with:

38 ASPHALT CONCRETE BASE AND PAVEMENT REPAIR

38-1.01 GENERAL

Asphalt Concrete (AC) Pavement Repair shall consist of cold planing and removal of existing asphalt concrete to a depth shown on the plans, re-compaction of sub-grade or base material to 95 percent relative compaction if the base material is reached as part of the AC removal, and replacement with hot mix asphalt concrete. Hot mix asphalt concrete shall be placed in two (2) equal lifts or three (3) equal lifts, with a maximum lift of 3-inches. The final layer shall not be less than one and one-half (1-1/2) inches in compacted thickness and no greater than three (3) inches. Areas to be repaired shall be marked by the Engineer.

Asphalt Concrete Base Repair shall consist of cold planing and removal of existing asphalt concrete to the base material, re-compaction of sub-grade or base material to 95 percent relative compaction, and replacement with hot mix asphalt concrete. Hot mix asphalt concrete shall be placed in two (2) equal lifts or three (3) equal lifts, with a maximum lift of 3-inches. The final layer shall not be less than one and one-half (1-1/2) inches in compacted thickness and no greater than three (3) inches. Areas to be repaired shall be marked by the Engineer.

Cold planing activities shall comply with 15-2.02B(3) .

Pavement and base repair locations shall not remain open more than 2 hours. If the time gap between grinding or pavement removal and paving becomes more than 2 hours, stop pavement removal to fill the time gap between removal and paving. If you refuse to stop removal operation and disregard the safety of the public, the Engineer will immediately stop the work until the 2 hour time gap is achieved.

No pavement or base repair shall take place until all cold planing has occurred for a street section or until directed by Engineer. The edges of the removal areas shall be neatly and cleanly cut prior to excavation. Cutting shall be by cold planing or as approved by the Engineer. A tack coat shall be applied to all surfaces prior to placement of new hot mix asphalt.

If significant cracking or deformation is observed that indicates base failure after the pavement is cold planed; such areas shall be marked by the Engineer and repaired as specified herein.

It is your responsibilities to field verify locations, elevations, etc. of existing underground utilities and to immediately notify the Engineer of any field conflicts.

All grindings and waste material shall be disposed of outside the City right-of-way at the Contractor's expense. No waste material shall be stockpiled in the City right-of way.

38-1.02 MATERIALS

An asphaltic emulsion tack coat (paint binder) shall be used consisting of emulsified asphalt, Type **SS1h** conforming to the requirements of Section 94. Notify the Engineer if you dilute asphaltic emulsion with water. The weight ratio of added water to asphaltic emulsion must not exceed 1 to 1.

Aggregate for asphaltic concrete for base and pavement repair shall be Type A conforming to the requirements of Section 39 and shall be one-half (**1/2**) inch **HMA-Type A** grading.

38-1.03 SUBMITTALS

Submit certificates from suppliers stating compliance of materials as directed in Section 39.

38-1.04 PAYMENT

The contract price paid per square foot for **Asphalt Concrete Pavement Repair** shall include full compensation for all labor, materials, tools, equipment, and incidentals and for doing all work involved in constructing asphalt concrete pavement repair, including cold planing, removal, and off-site disposal, compaction, tack coat, and hot mix asphalt concrete, as shown on the plans, as specified in the Standard Specifications and in these special provisions, and as directed by the Engineer.

The contract price paid per square foot for **Asphalt Concrete Base Repair** shall include full compensation for all labor, materials, tools, equipment, and incidentals and for doing all work involved in constructing asphalt concrete pavement repair, including cold planning, removal, and off-site disposal, compaction, tack coat, and hot mix asphalt concrete, as shown on the plans, as specified in the Standard Specifications and in these special provisions, and as directed by the Engineer.



39 HOT MIX ASPHALT

Add to section 39-1.01:

Produce and place HMA Type A under the Method construction process.

Add to section 39-1.02C:

Asphalt binder used in HMA Type A must be PG 64-10 or PG 64-16.

Add to section 39-1.02E:

Aggregate used in HMA Type A must comply with the 1/2-inch HMA Types A and B gradation.

Add to section 39-1.09C:

Notify the Engineer if you dilute asphaltic emulsion with water. The weight ratio of added water to asphaltic emulsion must not exceed 1 to 1.

Replace the 2nd, 3rd, and 4th paragraphs of section 39-1.11B(1) of the RSS for section 39-1.11 with:

Do not leave a vertical joint more than 0.15-foot high between adjacent lanes or between a lane and the shoulder of a road open to public traffic.

Place HMA on adjacent traveled way lanes so that at the end of each work shift the distance between the ends of HMA layers on adjacent lanes is from 5 to 10 feet. Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA to form temporary conforms. You may place Kraft paper or another authorized bond breaker under the conform tapers to facilitate the taper removal when paving operations resume.

Place additional HMA along the pavement's edge to conform to road connections, private drives, and driveways. Hand rake, if necessary, and compact the additional HMA to form a smooth conform taper.

Add to Section 39-6:

HMA is measured and paid for roadway sections at only two locations. The two locations where HMA is measured and paid for are at San Carlos and Coloma. HMA at all the other locations is paid as per section 38, 'Asphalt Concrete base and pavement repair'.

^^

40 CONCRETE PAVEMENT

Add to Section 40-1.01A

Before placing concrete, develop a sufficient supply of water and have it available throughout the work.

An inadequate water supply will be considered sufficient cause for delaying or stopping mixing operations. In case of a deficiency of water, the requirements for sub-grade and curing the concrete already placed shall have priority over mixing.

Immediately prior to placing concrete, sub-grade to receive pavement shall conform to compaction and elevation tolerances specified for the material involved.

Sub-grade shall also be free of all loose and extraneous material when concrete is placed thereon.

Sub-grade shall be uniformly moist, and any excess water standing in pools or flowing on the surface shall be removed prior to placing concrete.

Make adequate advance arrangements for preventing delay in delivery and placing of the concrete. An interval of more than 45 minutes between placing of any 2 consecutive batches or loads shall constitute cause for stopping paving operations, and YOU shall make a contact joint at your expense at the location and of the type directed by the Engineer in the concrete already placed.

Slip-form paving and finishing machines shall be used for this project. Slip-form paving and finishing machines shall be in satisfactory adjustment and operational condition.

Concrete shall be placed while fresh. The use of water for retempering any concrete will not be permitted. Concrete shall be spread, shaped and consolidated so that the completed pavement will conform to the thickness and cross section requirements of the plans and specifications. The new pavement surface at the longitudinal contact joint shall conform as closely as possible to the elevation of the existing concrete pavement. Any difference in elevation between the new pavement and the existing pavement shall be eliminated by finishing the new pavement within one foot of the existing pavement by hand methods, adding or removing concrete as necessary.

Pavement shall be constructed using only that paving equipment which produces a finished surface meeting straightedge and Profile Index requirements, as specified in Section 40-1.01D.

Slip-form pavers shall be equipped with traveling side forms of sufficient dimensions, shape and strength to produce pavement of the required cross section. Slip-form paving equipment shall spread, consolidate and screed freshly placed concrete in such a manner that a minimum of handwork will be required to produce a dense homogeneous pavement true to cross section and profile.

Concrete for the full paving width shall be effectively consolidated by means of high frequency internal vibrators. Vibrators may be mounted with their axes parallel or normal to pavement alignment. When vibrators are mounted with their axes parallel with the pavement alignment, the vibrators shall be spaced at intervals not to exceed 2.5 feet, measured center to center.

Transverse joints shall be constructed at the angle to centerline of pavement shown on the plans, and the faces of all joints both transverse and longitudinal shall be normal to the surface of the pavement.

Contact joints are those made by placing fresh concrete against hardened concrete. A moisture barrier consisting of curing compound, conforming to provisions in Section 90-7.01B, "Curing Compound Method," shall be applied to the face of any contact joint and allowed to dry prior to placing fresh concrete against that joint face.

Longitudinal weakened plane joints shall be constructed at traffic lane lines in multilane monolithic concrete pavement by the sawing method. Transverse weakened plane joints shall be constructed either by the sawing method or by the insert method at the option of the Contractor. There shall be 4 transverse weakened plane joints in each 54 linear feet of pavement placed, exclusive of approach slabs, pressure relief joints, and end anchors.

Pavement shall be given a preliminary float finish by means of devices incorporated in the slip-form paver. These may be supplemented, at the Contractor's option, with suitable machine floats.

In advance of curing operations, pavement shall be given an initial and a final texturing. Initial texturing shall be performed with a burlap drag or broom device which will produce striations parallel with centerline. Final texturing shall be performed with a spring steel tine device which will produce grooves parallel with centerline.

Epoxy adhesive shall be ASTM C-881, Simpson Set-XP, Hilti RE 500 SD, or equal.

Add to Section 40-1.02B(2):

Portland cement shall be Type II Modified.

Mix design for all concrete placed within the vehicular way, including jointed plan concrete pavement and all concrete pavement repair, shall be Shamrock Mix Design 9796Z (4000 psi, 1" max aggregate).

Replace 40-1.02B(2)(b) with:

Mix shall include 515ADMI "Wintercrete" admixture. Calcium chloride admixture shall not be permitted in any PCC mix.

Add to 40-1.04 with:

Payment for Pavement Anchor includes full compensation for all excavation and placement of concrete, and all associated work to tie pavement anchor into the Jointed Plain Concrete Pavement.

Replace "Reserved" in section 40-2 with:

40-2 JOINTED PLAIN CONCRETE PAVEMENT

40-2.01 GENERAL

40-2.01A Summary

Section 40-2 includes specifications for constructing JPCP.

40-2.01B Submittals

40-2.01B(1) General

Not Used

40-2.01B(2) Early Age Crack Mitigation System

At least 24 hours before each paving shift, submit the following information as an informational submittal:

1. Early age stress and strength predictions
2. Scheduled sawing and curing activities
3. Contingency plan for mitigating cracking

40-2.01C Quality Control and Assurance

40-2.01C(1) General

Not Used

40-2.01C(2) Quality Control Plan

The QC plan must include a procedure for identifying transverse contraction joint locations relative to the dowel bars longitudinal center and a procedure for consolidating concrete around the dowel bars.

40-2.01C(3) Early Age Crack Mitigation System

For PCC concrete pavement, develop and implement a system for predicting stresses and strength during the initial 72 hours after paving. The system must include:

1. Subscription to a weather service to obtain forecasts for wind speed, ambient temperatures, humidity, and cloud cover
2. Portable weather station with an anemometer, temperature and humidity sensors, located at the paving site
3. Early age concrete pavement stress and strength prediction computer program
4. Analyzing, monitoring, updating, and reporting the system's predictions

40-2.02 MATERIALS

Not Used

40-2.03 CONSTRUCTION**40-2.03A General**

Transverse contraction joints on a curve must be on a single straight line through the curve's radius point.

40-2.03B Tie Bar Placement

If the curvature of a concrete pavement slab prevents equal spacing of tie bars to maintain the minimum clearance from transverse joints, space them from 15 to 18 inches.

40-2.03C Ramp Termini

For ramp termini, use heavy brooming normal to the ramp centerline to produce a coefficient of friction of at least 0.35 determined on the hardened surface under California Test 342.

40-2.03D Removal and Replacement

When replacing concrete, saw cut and remove to full depth and width.

Saw cut full slabs at the longitudinal and transverse joints. Saw cut partial slabs at joints and where the Engineer orders. You may make additional saw cuts within the removal area to facilitate slab removal or to prevent binding of the saw cut at the removal area's edge. Saw cut perpendicular to the slab surface.

Use slab lifting equipment with lifting devices that attach to the slab. After lifting the slab, paint the cut ends of dowels and tie bars.

Construct transverse and longitudinal construction joints between the new slab and existing concrete using dowel bars. For longitudinal joints, offset dowel bar holes from original tie bars by 3 inches. For transverse joints, offset dowel bar holes from the original dowel bar by 3 inches.

Drill holes and use chemical adhesive to bond the dowel bars to the existing concrete. Use an automated dowel bar drilling machine. Holes must be at least 1/8-inch greater than the dowel bar diameter. Clean the holes in compliance with the chemical adhesive manufacturer's instructions. Holes must be dry when you place chemical adhesive.

Immediately after inserting dowel bars into the chemical adhesive-filled holes, support the dowel bars and leave them undisturbed for the minimum cure time recommended by the chemical adhesive manufacturer.

Clean the faces of joints and underlying base from loose material and contaminants. Coat the faces with a double application of pigmented curing compound under section 28-2.03F. For partial slab replacements, place preformed sponge rubber expansion joint filler at new transverse joints under ASTM D 1752.

40-2.04 PAYMENT

Full compensation for the bowel baskets and galvanized welded wire mesh shall be considered as included in the contract price paid for Jointed Plain Concrete Payment, and no separate payment will be made therefor.

Jointed Plain Concrete Pavement shall be paid at the contract price per **SY.INCH Thickness** which "SY" represents the area of the new concrete pavement in square yard and "INCH" represents the thickness of new concrete pavement.

As an example, if the contractor bids \$20/SY.INCH Thickness to place 100 square yards that turns out to be 4" thick, contractor pay quantity is 100SY X \$ 20/SY.INCH Thickness X 4 Inches= \$8,000.

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DIVISION VI STRUCTURES

52 REINFORCEMENT

Add to Section 52-1.04 with:

Measurement for reinforcement will include only bar reinforcing steel.

Full compensation for the bowel baskets and galvanized welded wire mesh shall be considered as included in the contract price paid for Jointed Plain Concrete Payment, and no separate payment will be made therefor.

Reinforcement for Pavement Anchors will be measured and paid for separately as Reinforcement (Pavement Anchor).

^^

DIVISION VII DRAINAGE

64 PLASTIC PIPE

Replace the first paragraph of Section 64-1.02A:

Pipe material should be PVC SDR 26, ASTM D3034 with a minimum cell classification of 12454-B per ASTM D1784. Pipe sizes are as designated on drawings and will be the internal clear diameter of the pipe. Individual pipe lengths shall not exceed twenty (20) feet in length.

Add to Section 64-1.02E:

Joint type shall be Gasketed, bell-and-spigot, push-on, ASTM D3212; factory installed or field installed as recommended by pipe manufacturer. Except for vertical cleanout risers, solvent welded joints shall not be permitted.

Add to Section 64-1.03A:

Pipe may be stored on the project site at the contractors own risk. Precautions shall be taken to prevent damage to the stored pipe. Prior to excavation, the Contractor shall pothole all existing underground utilities to verify their locations and elevations. Potholing shall be done by hand or vacuum type equipment. Any conflicts to pipe alignment shall be brought to the Engineer's immediate attention for resolution.

All pipe and fittings shall be inspected by the Engineer prior to installation. Install in accordance with the best practice, ASTM D2321 and in conformance with the applicable requirements of the manufacturer's handbooks.

Start installation at the lower end of the grade and proceed upgrade and lay all bell and spigot pipe with the bell end on the uphill side.

Pipe shall be carefully handled during hauling, unloading, and placing operations. Use strap-type slings for lifting and placing; no chains or hooks will be permitted.

Broken or damaged pipe or appurtenances will be rejected, and shall be removed from the work and replaced at the Contractor's expense.

Lay all pipes accurately and in conformance with the prescribed lines and grades established by the Drawings. There shall be no pipe movement or pulling of installed pipe.

Bending pipe is permitted only where curved alignments are shown on the Drawings.

Do not bend pipe in excess of the maximum recommended by the pipe manufacturer.

The interior of the preceding pipe shall be carefully cleaned of all dirt and debris before a new length of pipe is placed. All open pipe ends shall be closed with watertight plugs when pipe laying is not in progress. Pipe in the trench shall have continuous uniform bearing along its bottom.

Pipe shall not be backfilled until the installation has been inspected and approved. Pipe backfilled prior to approval shall be uncovered and re-backfilled at the Contractor's expense. Any storm drain pipe with less than 2 feet of cover shall be backfilled with Slurry cement until the 2' minimum of cover is met.

Do not interrupt the flow in any existing storm drain. Any diversion of flow must be approved by the Engineer

The interior of the preceding pipe shall be carefully cleaned of all dirt and debris before a new length of pipe is placed.

All open pipe ends shall be closed with watertight plugs when pipe laying is not in progress

For trenching, backfilling and shoring, comply with Section 64, "Plastic Pipe".

Cleaning:

The interior of the preceding pipe shall be carefully cleaned of all dirt and debris before a new length of pipe is placed.

All open pipe ends shall be closed with watertight plugs when pipe laying is not in progress

All testing and repairs are inclusive of the sanitary sewer bid items cost.

Sections that fail to pass the tests shall be repaired or replaced, and the section retested until it falls within specified allowances.

Deflection Test:

1. Test deflection of pipes by passing a mandrel through the pipe without obstruction.
2. The size of the mandrel shall be set at 92.5% of the base inside diameter of the pipe, per ASTM D3034.

Air Leakage Test

1. The Contractor may, at his option, substitute an air pressure test in lieu of a hydrostatic leakage test.
2. Uni-Bell B-6-90, "Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe."
3. Securely plug all openings in the section of the line to be tested, and apply an air pressure of approximately four (4) psi.
4. The elapsed time observed for a pressure drop of one (1) psi shall not be less than shown on Table I of Uni-Bell B-6.

Add to Section 64-1.04:

12" PVC Storm Drain pipe shall be measured and paid on a **Linear Foot** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, shoring, providing and installation of PVC pipe, providing bedding material, import material (if necessary), back filling, cement slurry (if necessary), cleaning, testing and replacement of the pavement in kind as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

Upsizing drain pipe to 10" PVC Pipe and top plate for drain box at 607 Sausalito Blvd. shall be measured and paid on a **Lump Sum** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, demolition of existing concrete at driveway, removing the existing 8" VCP pipe, providing and installation of new 10" PVC pipe, concrete on top of the pipe, providing and installing 1/8" thick plate on top of the outlet box with angles and bolts as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made. All the plates and angles; bolts and nuts shall be hot dip galvanized.

68 SUBSURFACE DRAINS

Add to Section 68-2.01:

Subdrain (3-inch perforated PVC) shall comply with Section 68-2, "Underdrains".

Add to Section 68-2.04:

Payment for Subdrain (3-inch perforated PVC) shall include full compensation for all labor, materials, tools, equipment, and incidentals necessary to construct a complete subdrain as shown on the plans, including sawcutting and excavation, and furnishing and placing drain rock, filter fabric, and CI 3 concrete backfill. HMA will be measured and paid for separately.



DIVISION VIII MISCELLANEOUS CONSTRUCTION

73 CONCRETE CURBS AND SIDEWALK

Add to Section 73-1.02A:

Portland cement shall be Type II Modified. Mix design shall be class 2 with minimum compressive strength of 3000 psi.

Epoxy adhesive shall be ASTM C-881, Simpson Set-XP, Hilti RE 500 SD, or approved equal.

Add to Section 73-1.02B:

Detectable warning surface shall be Armor –Tile cast in place tile, or approved equivalent. Any detectable warning surface equivalent specification must be submitted in writing for approval by the project engineer. A minimum of 5 working days shall be allowed for approval by the project engineer.

Replace the second paragraph of Section 73-1.04:

Full compensation for furnishing and installing detectable warning surface shall be considered as included in the price paid per curb ramp, and no separate payment will be made therefor. Aggregate base for curb ramps and sidewalks will be measured and paid for separately, as per Section 26 of standard specifications.

AA

Replace Section 78 with:

78 SANITARY SEWER SYSTEM

78-1.01 GENERAL

Description:

Work included in this section is potholing existing utilities, construction of new sanitary sewer laterals, and cleanouts, removal of existing sanitary sewer lines, infiltration and leakage testing for any sanitary connections, manholes, or pipe, and any sanitary sewer work as directed by the Engineer

Pipe Installation:

Pipe may be stored on the project site at the Contractor's own risk. Precautions shall be taken to prevent damage to stored pipe. Prior to any excavation, the Contractor shall pothole all existing underground utilities to verify their locations and elevations. Potholing shall be done by hand or vacuum type equipment. Any conflicts to pipe alignment shall be brought to the Engineer's immediate attention for resolution.

All pipe and fittings shall be inspected by the Engineer prior to installation. Install in accordance with the best practice, ASTM D2321 and in conformance with the applicable requirements of the manufacturer's handbooks. Start installation at the lower end of the grade and proceed upgrade and lay all bell and spigot pipe with the bell end on the uphill side.

Pipe shall be carefully handled during hauling, unloading, and placing operations. Use strap-type slings for lifting and placing; no chains or hooks will be permitted.

Broken or damaged pipe or appurtenances will be rejected, and shall be removed from the work and replaced at the Contractor's expense.

Lay all pipes accurately and in conformance with the prescribed lines and grades established by the Drawings. There shall be no pipe movement or pulling of installed pipe.

Bending pipe is permitted only where curved alignments are shown on the Drawings.

Do not bend pipe in excess of the maximum recommended by the pipe manufacturer.

The interior of the preceding pipe shall be carefully cleaned of all dirt and debris before a new length of pipe is placed. All open pipe ends shall be closed with watertight plugs when pipe laying is not in progress. Pipe in the trench shall have continuous uniform bearing along its bottom.

Pipe shall not be backfilled until the installation has been inspected and approved. Pipe backfilled prior to approval shall be uncovered and re-backfilled at the Contractor's expense.

Pipe Bursting Pipe Installation

- A. Select access pit locations to minimize damage to existing improvements in easements and work areas on private property, and to minimize the size and number of pits.
- B. Excavate at laterals and crossing utilities within two feet of the host pipe as shown on the Drawings. Disconnect the laterals from the host pipe.

- C. Clean the sewer to remove debris, roots, or other obstructions that will interfere with bursting.
- D. Modify existing manholes as needed to allow passage of the bursting equipment.
- E. Immediately before bursting perform a CCTV inspection to verify that the host pipe is in a suitable condition to be burst, and submit the documentation to the City's Representative for confirmation before proceeding.
- F. Utilize a constant tension static, hydraulic, or pneumatic bursting system to break the pipe and form a void large to accommodate the outside diameter of the new pipe. Install the new pipe immediately behind the bursting head.
- G. Allow a minimum of twelve hours before connecting the pipe to the manholes, laterals, or other structures to allow the pipe to adjust for temperature and strain.
- H. Anchor the pipe to manholes and other structures using water stop or flange adaptor that is embedded into the wall of the repaired manhole or structure.
- I. Complete modification of the manhole bases as shown on the Drawings.
- J. Reconnect the laterals to the new sewer by using suitable water tight insert tees or wyes, or strap on saddles. Connect different types of pipe with water tight elastomeric couplings compatible with the outside diameters of the pipe being joined and secure with stainless steel bands.
- K. Backfill at laterals and access pits as required for trenches.

Trenching, Backfilling and Shoring:

For trenching, backfilling and shoring see section 10-1.26 Trenching and Backfilling.

Potholing:

Potholing shall be utilized to determine actual horizontal and vertical location of existing facilities at the locations shown on the plans. Potholing is the practice of opening a test hole to expose underground utilities to determine the horizontal and vertical location of the facility.

The following alternative methods shall be utilized for potholing:

Hand Digging. Hand digging is the method of excavating a pothole by manual means with hand-held, non-mechanical equipment such as a shovel.

Vacuum Excavation. Vacuum excavation shall consist of air or water pressure to break up the soil and a vacuum device to collect the spoil. The Contractor shall determine if air or water vacuum excavation shall be used dependent upon specific site and environmental characteristics. Soil type such as heavy clay may require water vacuum excavation. Air vacuum excavators shall be utilized if mud from water vacuum excavators cannot be disposed of properly. Air vacuum excavators shall be used if damage to utilities, such as cutting through cables, will occur with the use of water vacuum excavators.

Air: Air vacuum excavators shall utilize a high velocity air stream to penetrate, expand, and break-up the soil. The loosened particles of soil and rock shall be removed from the excavation through the use of a vacuum.

Water: Water vacuum excavation systems shall not be used.

Potholes shall be restored prior to the end of the work day. No pothole shall be left uncovered overnight.

Manhole Installation:

Install accurately and in conformance with the prescribed lines, grades and details established by the Drawings.

Secure manhole frames to the manhole cover or riser barrels with a full mortar bed or a full circular concrete collar that will secure the frame to the structure and provide uniform bearing for the frame.

Precast pipe openings shall not be greater than two (2) inches larger than the outside diameter of the pipe. Exercise care when cutting precast pipe opening to prevent excessive cracking and damage.

Do not project inlet and outlet pipes and cut off flush with the inside surface of the manhole.

No pipe bells shall be installed in the manhole wall. Install pipe such that the pipe bells are within three feet from the side of the manhole for each inlet and outlet.

Invert channels shall be smooth and semicircular in shape conforming to inside of adjacent sewer section. Make changes in direction of flow with a smooth curve of as large a radius as size of structure will permit. Make changes in size and grade of channels gradually and evenly.

Floor of structure outside the channels shall be smooth and slope toward channels not less than 1:12 (1-inch per foot) and not more than 1:6 (2 inches per foot).

Install manhole frames and covers to within 1/8" vertical elevation in paved areas.

Protect curing concrete from damage.

Do not interrupt the flow in any existing sewer. Any diversion of flow must be approved by the Engineer.

New and/or bypassing facilities must be installed, tested, and in service prior to abandoning the existing pipe or manholes they are replacing.

Cleaning:

Flush and clean all sewer main using pneumatic, sewer cleaning balls by experienced personnel and observed by the Engineer or his representative. The ball size shall be appropriate for size of pipe being cleaned.

The ball shall be introduced into the uppermost manhole and passed from manhole to manhole with sufficient water to carry it along. The ball shall be controlled with a rope; and feed ball slowly to remove all debris at manholes.

Each section of the sewer line must be thoroughly cleaned before proceeding to the next section. All obstructions and debris must be removed from sewer lines.

Testing:

All testing and repairs are inclusive of the sanitary sewer bid items cost.

Sections that fail to pass the tests shall be repaired or replaced, and the section retested until it falls within specified allowances.

Deflection Test:

1. Test deflection of pipes by passing a mandrel through the pipe without obstruction.
2. The size of the mandrel shall be set at 92.5% of the base inside diameter of the pipe, per ASTM D3034.

Air Leakage Test

1. The Contractor may, at his option, substitute an air pressure test in lieu of a hydrostatic leakage test.
2. Uni-Bell B-6-90, "Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe."
3. Securely plug all openings in the section of the line to be tested, and apply an air pressure of approximately four (4) psi.
4. The elapsed time observed for a pressure drop of one (1) psi shall not be less than shown on Table I of Uni-Bell B-6.

Reporting

1. Contractor shall provide a complete Testing Report for review and approval by the Engineer. The Report shall at a minimum discuss testing procedures, tabulate results, provide photographic documentation of the testing process, note any anomalies, the names of all personnel involved in the testing work, and record all activities and conditions associated with the field testing.
2. Once the Testing Report is approved by the Engineer, the Contractor shall CCTV all piping between the points of connection and photodocument the condition of each manhole structure. Contractor shall append CCTV and photodocument to the final Testing Report.

Materials:

PIPE AND FITTINGS

- A. Material: PVC SDR 26, ASTM D3034 with a minimum cell classification of 12454-B per ASTM D1784 or approved equal.
- B. Size: Designated on drawings and will be the internal clear diameter of the pipe.
- C. Lengths: Individual pipe lengths shall not exceed twenty (20) feet in length.
- D. Labeling: Stenciled with words "SANITARY SEWER" in 1-5/8" high block lettering with permanent ink, repeated at 2-foot spacing along pipe length.

JOINTS

- A. Type: Gasketed, bell-and-spigot, push-on, ASTM D3212; factory installed or field installed as recommended by pipe manufacturer.
- B. Material: Elastomeric gaskets, ASTM F-477.
- C. Lubricant: recommended by pipe manufacturer.
- D. Except for vertical cleanout risers, solvent welded joints shall not be permitted.

MANHOLES

- A. Base: Cast-in place concrete
- B. Barrel and cone sections: Precast reinforced concrete, ASTM C478
- C. Waterstop: Ram-Nek joint sealant or approved equal, Section 51-1.145 of the Standard Specifications.
- D. Mortar: Section 51-1.135 of the Standard Specifications.
- E. PVC Manhole Adapters: Neoprene waterstop, Section 51-1.14 of the Standard Specifications.
- F. Frames and covers:
 1. Must be made in U.S.A.
 2. Stenciling: Center of cover, 5/16" in height.
- G. Steps: Polypropylene, ASTM C478 and per the Drawings.
- H. Concrete: 3000 psi 28-day compressive strength

SEWER INLET AND GREASE TRAP:

- A. Sewer Inlet: Pre-cast concrete inlet with frame and grate and checker plate, Central Pre-cast Type "2K" or approved equal.
- B. Grease Trap: ZURN-GT 2700-35 or approved equal
- C. Plug Valve: (4") 3-way DEZURIK Plug valve or approved equal.

Submittals:

Contractor shall submit certificates from the suppliers stating compliance of the materials with the requirements of this section.

Also Documentation for CCTV inspections and drawings indicating the proposed locations of access pits for pipe bursting shall be submitted as well.

Measurements & Payments:

Sanitary Sewer Lateral Condition Assessment shall include all work necessary to assess condition of existing laterals, including potholing to expose lateral, coordination with Engineer and other City employees to determine condition of lateral, and all other work necessary to assess the condition of a lateral.

Supplemental Work (Sanitary Sewer Lateral Replacement) shall include all work necessary to expose and replace an existing sewer lateral.

The work of replacing laterals is dependent on the outcome of the Sanitary Sewer Lateral Condition Assessment and may not be necessary. This pay item shall not be subject to the requirements of 9-1.06, "Changed Quantity Payment Adjustment."

Supplemental Work (Sanitary Sewer Lateral Replacement)

6" Rodding Hole & 3'x6' Concrete Slab and Sewer Inlet shall be measured and paid on a **Lump Sum** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, providing and installation of rodding holes, concrete slab, sewer inlet, back filling and replacement of the pavement in kind as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

6" PVC Pipe shall be measured and paid on a **Linear Foot** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, providing and installation of PVC pipe, providing bedding material, import material (if necessary), back filling, cleaning, testing and replacement of the pavement in kind as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

4" PVC Pipe shall be measured and paid on a **Linear Foot** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, providing and installation of PVC pipe, providing bedding material, import material (if necessary), back filling, cleaning, testing and replacement of the pavement in kind as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

Manhole (Storm Drain & Sanitary Sewer) shall be measured and paid on an **each** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, providing and installation of manhole, import material (if necessary), back filling, cleaning, testing and replacement of the pavement in kind as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

Backflow Preventer shall be measured and paid on a **Lump Sum** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, providing and installation of back flow preventer, back filling as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

Abandoning 4" sewer line shall be measured and paid on a **Lump Sum** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all

the work involved, as identified in the field, excavation, disconnecting the existing pipe from the source, removing portion of the existing sewer pipe as shown on plans, plugging both ends of abandoned pipe and backfilling as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

Wash rack, Grease Trap and Plug Valve shall be measured and paid on a **Lump Sum** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, disconnecting the existing sewer pipe from existing wash rack, providing and installing grease trap and plug valve, pre-cast concrete box with H-20 loading frame and grate; checker plate, sewer line between grease trap, wash rack and plug valve; provide and install two bollards complete in place as shown on plans, and as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

Replace existing 8" sewer pipe with 8" PVC sewer pipe (pipe bursting method) shall be paid per Linear Foot according to the horizontal distance of sanitary sewer main, and shall include all work equipment, material, labor, tools, before and after CCTV inspection, sewer by-pass, excavation, shoring, potholing for utilities, clearing, reconnection to manholes, surface and other improvements restoration, and all other incidentals necessary to replace the existing pipe as described in these specifications and drawings.

78-1.02 SANITARY MAIN LINING

78-1.03 TRENCHING AND BACKFILLING

Description:

Work included in this section is potholing existing utilities, excavation for pipes and conduits, manholes, utility boxes and vaults, cleanouts, and drain inlets, furnishing, placing, and removing trench shoring and bracing, trench dewatering and disposal, compacting bedding and backfill over utilities to sub-grade elevations. All work not specified in this section or as part of the plan set shall be executed by the contractor in conformance with the most current Caltrans Standard Specifications or as approved by the Engineer.

Existing Utilities:

1. Unless scheduled for removal, protect all active utilities shown on the Drawings or made known to the Contractor prior to excavation. If damaged, repair or replace to the utility owner's approval at the Contractor's expense. Pothole utilities to verify their location. Contractor shall be responsible for contacting utilities and coordinating work around other utilities.
2. If foreseen or unforeseen existing utilities are found to interfere with the permanent facilities constructed under this Contract, immediately notify the Engineer for direction.
3. Do not proceed with permanent repair or relocation of utilities to the utility owner's approval until written instructions are received from the Engineer.

Protection of Persons and Property:

1. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by the Contractor's operations.
2. Do not leave trenches open during non-working hours.
3. Install devices to secure work area from the public.

Shoring:

1. The Contractor is solely responsible for furnishing, placing, maintaining and, except as shown or specified otherwise, removing all bracing and shoring in accordance with applicable law, including local

ordinances, applicable OSHA, CalOSHA, California Civil Code, and California Department of Industrial Safety Orders.

2. Excavation Shoring and Sheeting Plan shall include:
 - a. Details of shoring, bracing, sloping or other provisions for worker protection from hazards of caving earth.
 - b. Design assumptions and calculations.
 - c. Anticipated difficulties and proposed resolutions.
 - d. Methods and sequencing of installing excavation support.
 - e. Proposed location for storing unused shoring and for stockpiling excavated materials.
3. The Contractor shall be solely responsible for any and all liability that may arise from failure to provide adequate bracing, sheeting, or shoring as necessary to support the excavation under any and all conditions of loading that may exist or arise during construction of the project.
4. Repair or restore damage to any portion of the work resulting from movement of the sides or bottom of trenches or other excavation which is attributable to the Contractor's acts or omissions, whether sides are braced or not.

Dewatering:

1. Remove all water encountered during trench and other subsurface work to an approved location by pumps, drains, and other approved methods.
2. Contractor shall not under any circumstances conduct or pump water or allow water to be directed or flow across a street or roadway nor toward other facilities or improvements on the site without approval of the Engineer.
3. Contractor shall exercise Best Management Practices (BMP) for protection of drainage inlets and waterways from sediment and other construction material reaching existing drainage facilities.

Dust Control:

1. Control dust caused by the Contractor's operation on and near the work site by approved means.

Excavating and Backfilling:

A. Sawcutting

1. Asphalt concrete and concrete pavement to be removed shall be cut to a neat, trim linet with an abrasive type saw.
2. Concrete sidewalk, curb or pavement shall be sawcut at the first scoring line or joint at or beyond the planned point of removal.
3. Sidewalk to be removed from monolithic curb and gutter that is to remain shall be sawcut at the back of curb line. Sidewalk to be removed that is poured monolithically with the curb, that is designated to remain, shall be sawcut to a minimum depth of 12" or the depth of concrete, as determined by the Engineer.
4. All sawcut dust and fluids shall be continuously vacuumed during cutting operations.

B. Utility Verification

1. Expose all existing underground facilities at points of crossing and connections prior to further trenching or construction.
2. Any conflicts between existing facilities and locations or depths of structures or alignment or grade of conduits shall be resolved and approved by the Engineer prior to proceeding with the work.
3. The Contractor shall be responsible for the immediate repair of any underground utilities or sewers damaged during excavation at no additional cost to the City.

C. Cover, Lines, and Grade

1. Perform all necessary excavation, shoring, pumping and dewatering and backfilling required for the proper laying of all underground pipes and conduits. Jetting and/or flooding for compaction shall not be allowed
2. All piping in ground shall have a minimum cover of 1'-6", except as otherwise shown on the Drawings, and shall be laid in ditches dug true to grade and line, avoiding sharp breaks.

D. Bearing

1. Piping shall bear equally over its entire length at bottom of ditch. Rock or unstable material encountered at grade shall be replaced with bedding material to a depth of 6 inches below pipe.

E. Trenching

1. All pipeline trenches shall have vertical walls to a point twelve inches (12") above the top of the pipe or uppermost conduit.
2. Trenching machines may be used provided their use does not result in damage to existing facilities. Unless otherwise specified or indicated, the Contractor may use any method of excavation that will not damage or endanger existing facilities, adjacent structures or property or disturb the natural or fill soils at, below and/or adjacent to the excavation.

F. Backfilling

1. Unless otherwise indicated, all pipes shall have minimum of four inches (4") of bedding material below the barrel of the pipe with "bell holes" to allow full length bearing beneath the barrel of the pipe.
2. Bedding shall be placed and compacted as specified and shall be shaped around the barrel of the pipe.
3. Bedding for piping shall extend up the sides of the pipe approximately 3 inches (3") or to the top of the pipe or conduit for sizes 6" or less in diameter.
4. Prior to backfilling, all facilities shall be anchored in place or other means shall be taken to ensure no motion and adequate separation of the facilities.
5. Backfilling shall commence as soon as practical after subsurface work is installed and reviewed by the Engineer.
6. Backfill shall be moisture-conditioned to near-optimum in accordance with ASTM D1557.
 - a. Zone 1 (upper 12" backfill): Fill trenches with approved excavated material in 6-inch thick uncompacted lifts, compacted to 95% relative density.
 - b. Zone 2 (between Zone 1 and initial pipe backfill): Fill trenches with approved excavated material in 12-inch thick uncompacted lifts, compacted to 90% relative density.

G. Dewatering

1. All portions of the work shall be kept free of standing water and/or ground water, at all times, until the contract work is completed.
 2. Contractor shall maintain uniform grades, construct ditches, and/or provide and operate pumps as necessary to prevent flooding, erosion, softening of compacted
- H. Excavations shall be covered with steel plates during non-working hours.
- I. Temporary Asphalt Paving
1. If no permanent paving is placed, provide a minimum section of 2" of temporary asphalt pavement (asphalt cutback) flush and smooth with the existing pavement grades until permanent asphalt concrete is installed.
 2. Contractor is responsible for maintenance of temporary asphalt paving at all times.

Materials:

Excavated material and excess material from site grading may be re-used for backfilling and grading, provided such fill shall be homogeneous, free from rocks, rubbish, organic material, etc., and shall consist of fragments capable of being thoroughly crushed and consolidated into a dense, uniform compact fill, and shall meet the following requirements:

Sieve Size:	% Passing:
No. 4	100
No. 20	0 - 60
No. 200	5 - 15
Plasticity Index	12 Maximum

PIPE BEDDING AND BACKFILL

- A. Subject to the approval of the Engineer.
- B. Sanitary Sewer pipe bedding: Class 2 Permeable, Section 68-1.025 of the State Standard Specifications.
- C. Class 2 aggregate base, ¾" maximum, Section 26 of the State Standard Specifications.

ELECTRICAL AND COMMUNICATIONS CONDUIT BACKFILL

- A. Slurry cement backfill: Section 19-3.062 of the Standard Specifications, except that the required cement content shall be 1.5 sacks for each cubic yard of material produced.
- B. Portland cement, Type II Modified, ASTM C150

DRAIN ROCK

- A. Class 1, Type B permeable material, Section 68-1.025 of the Standard Specifications.

WATER

Reasonable free of objectionable quantities of silt, oil, organic matter, alkali, salts and other impurities. Water quality must be acceptable to the Engineer.

Submittals:

Contractor shall submit certificates from the suppliers stating compliance of the materials with the requirements of this section.

Measurements and payments:

No separate measurement shall be made for excavation and backfilling. Full compensation for furnishing all materials, labor, equipment, tools and for doing all work required as specified herein, as shown on the plans and as directed by the Engineer shall be included in various bid items and no additional compensation shall be allowed therefor.



Replace Section 79 with:

79 STORM DRAIN SYSTEM

79-1.01 GENERAL

Description:

Work included in this section is replacement of existing storm drain pipeline. Comply with Section 64, “Plastic Pipe”, as modified in this special provision.

Pipe Installation:

Pipe may be stored on the project site at the Contractor's own risk. Precautions shall be taken to prevent damage to stored pipe. Prior to any excavation, the Contractor shall pothole all existing underground utilities to verify their locations and elevations. Potholing shall be done by hand or vacuum type equipment. Any conflicts to pipe alignment shall be brought to the Engineer’s immediate attention for resolution.

All pipe and fittings shall be inspected by the Engineer prior to installation. Install in accordance with the best practice, ASTM D2321 and in conformance with the applicable requirements of the manufacturer’s handbooks. Start installation at the lower end of the grade and proceed upgrade and lay all bell and spigot pipe with the bell end on the uphill side.

Pipe shall be carefully handled during hauling, unloading, and placing operations. Use strap-type slings for lifting and placing; no chains or hooks will be permitted.

Broken or damaged pipe or appurtenances will be rejected, and shall be removed from the work and replaced at the Contractor’s expense.

Lay all pipes accurately and in conformance with the prescribed lines and grades established by the Drawings. There shall be no pipe movement or pulling of installed pipe.

Bending pipe is permitted only where curved alignments are shown on the Drawings.

Do not bend pipe in excess of the maximum recommended by the pipe manufacturer.

The interior of the preceding pipe shall be carefully cleaned of all dirt and debris before a new length of pipe is placed. All open pipe ends shall be closed with watertight plugs when pipe laying is not in progress. Pipe in the trench shall have continuous uniform bearing along its bottom.

Pipe shall not be backfilled until the installation has been inspected and approved. Pipe backfilled prior to approval shall be uncovered and re-backfilled at the Contractor's expense. Any storm drain pipe with less than 2 feet of cover shall be backfilled with Slurry cement until the 2' minimum of cover is met.

Do not interrupt the flow in any existing storm drain. Any diversion of flow must be approved by the Engineer

Trenching, Backfilling and Shoring:

For trenching, backfilling and shoring, comply with Section 64, “Plastic Pipe”.

Cleaning:

The interior of the preceding pipe shall be carefully cleaned of all dirt and debris before a new length of pipe is placed.

All open pipe ends shall be closed with watertight plugs when pipe laying is not in progress

Testing:

All testing and repairs are inclusive of the sanitary sewer bid items cost.

Sections that fail to pass the tests shall be repaired or replaced, and the section retested until it falls within specified allowances.

Deflection Test:

3. Test deflection of pipes by passing a mandrel through the pipe without obstruction.
4. The size of the mandrel shall be set at 92.5% of the base inside diameter of the pipe, per ASTM D3034.

Air Leakage Test

5. The Contractor may, at his option, substitute an air pressure test in lieu of a hydrostatic leakage test.
6. Uni-Bell B-6-90, "Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe."
7. Securely plug all openings in the section of the line to be tested, and apply an air pressure of approximately four (4) psi.
8. The elapsed time observed for a pressure drop of one (1) psi shall not be less than shown on Table I of Uni-Bell B-6.

Material:

PIPE AND FITTINGS

1. Material: PVC SDR 26, ASTM D3034 with a minimum cell classification of 12454-B per ASTM D1784.
2. Size: Designated on drawings and will be the internal clear diameter of the pipe.
3. Lengths: Individual pipe lengths shall not exceed twenty (20) feet in length.

JOINTS

1. Type: Gasketed, bell-and-spigot, push-on, ASTM D3212; factory installed or field installed as recommended by pipe manufacturer.
2. Material: Elastomeric gaskets, ASTM F-477.
3. Lubricant: recommended by pipe manufacturer.
4. Except for vertical cleanout risers, solvent welded joints shall not be permitted.

Submittals:

Contractor shall submit certificates from the suppliers stating compliance of the materials with the requirements of this section.

Measurements

12" PVC Storm Drain pipe shall be measured and paid on a **Linear Foot** basis. The Contract unit price shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved, as identified in the field, excavation, shoring, providing and installation of PVC pipe, providing bedding material, import material (if necessary), back filling, cement slurry (if necessary), cleaning, testing and replacement of the pavement in kind as indicated in the Contract Documents or as directed by the Engineer, and no additional compensation shall be made.

4. Raised Pavement Markers

Pavement markers shall be of the type called for in the Contract Documents and shall conform to the requirements of Section 85, "Pavement Markers" of the State Standard Specifications and the MUTCD (Manual on Uniform Control Devices). All pavement markers shall be plastic. Ceramic markers will not be allowed.

5. Reflectorized Markers

Retro reflective markers shall be of the size and type designated on the plans and shall conform to the requirements of Section 82 of the State Standard Specifications.

Contractor shall submit certificates from the suppliers stating compliance of the materials with the requirements of this section.

Replace section 84-1.04:

Full compensation for all temporary and permanent traffic stripes and pavement markings, including temporary pavement markers, thermoplastic stripes and markings, adhesives, and raised pavement markers, shall be considered as included in the various contract items of work and no separate payment will be made therefor.

85 PAVEMENT MARKERS

Add to section 85-1.03A:

Blue reflective markers are presently being used to mark locations of fire hydrants at all sites. You are responsible for referencing and replacing those markers. At locations where a fire hydrant is present and a blue reflective marker is displaced by your activities, place a blue reflective marker as directed by the Engineer.

Replace section 85-1.04 with:

Full compensation for placing blue reflective marker shall be considered as included in the various contract items of work and no separate payment will be made therefor.

Section 00950. REVISED STANDARD SPECIFICATIONS

**REVISED STANDARD SPECIFICATIONS DATED
02-22-13**

Revised standard specifications are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*. A date under a main-section heading is the date of the latest revision to the section.

Each revision to the *Standard Specifications* begins with a revision clause that describes a revision to the *Standard Specifications* or introduces a revision to the *Standard Specifications*. For a revision clause that describes a revision, the date on the right above the clause is the publication date of the revision. For a revision clause that introduces a revision, the date on the right above a revised term, phrase, clause, paragraph, or section is the publication date of the revised term, phrase, clause, paragraph, or section. For a multiple-paragraph or multiple-section revision, the date on the right above a paragraph or section is the publication date of the paragraphs or sections that follow.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

DIVISION I GENERAL PROVISIONS

1 GENERAL

10-19-12

Replace "current" in the 2nd paragraph of section 1-1.05 with:

most recent

04-20-12

Add to the 4th paragraph of section 1-1.05:

04-20-12

Any reference directly to a revised standard specification section is for convenience only. Lack of a direct reference to a revised standard specification section does not indicate a revised standard specification for the section does not exist.

Add to the 1st table in section 1-1.06:

10-19-12

TRO	time-related overhead
-----	-----------------------

06-20-12

Delete the abbreviation and its meaning for *UDBE* in the 1st table of section 1-1.06.

10-19-12

Delete "Contract completion date" and its definition in section 1-1.07B.

10-19-12

Delete "critical delay" and its definition in section 1-1.07B.**Replace "day" and its definition in section 1-1.07B with:**

10-19-12

day: 24 consecutive hours running from midnight to midnight; calendar day.

1. **business day:** Day on the calendar except a Saturday and a holiday.
 2. **working day:** Time measure unit for work progress. A working day is any 24-consecutive-hour period except:
 - 2.1. Saturday and holiday.
 - 2.2. Day during which you cannot perform work on the controlling activity for at least 50 percent of the scheduled work shift with at least 50 percent of the scheduled labor and equipment due to any of the following:
 - 2.2.1. Adverse weather-related conditions.
 - 2.2.2. Maintaining traffic under the Contract.
 - 2.2.3. Suspension of a controlling activity that you and the Engineer agree benefits both parties.
 - 2.2.4. Unanticipated event not caused by either party such as:
 - 2.2.4.1. Act of God.
 - 2.2.4.2. Act of a public enemy.
 - 2.2.4.3. Epidemic.
 - 2.2.4.4. Fire.
 - 2.2.4.5. Flood.
 - 2.2.4.6. Governor-declared state of emergency.
 - 2.2.4.7. Landslide.
 - 2.2.4.8. Quarantine restriction.
 - 2.2.5. Issue involving a third party, including:
 - 2.2.5.1. Industry or area-wide labor strike.
 - 2.2.5.2. Material shortage.
 - 2.2.5.3. Freight embargo.
 - 2.2.5.4. Jurisdictional requirement of a law enforcement agency.
 - 2.2.5.5. Workforce labor dispute of a utility or nonhighway facility owner resulting in a nonhighway facility rearrangement not described and not solely for the Contractor's convenience. Rearrangement of a nonhighway facility includes installation, relocation, alteration, or removal of the facility.
 - 2.3. Day during a concurrent delay.
3. **original working days:**
 - 3.1. Working days to complete the work shown on the *Notice to Bidders* for a non-cost plus time based bid.
 - 3.2. Working days bid to complete the work for a cost plus time based bid.

Where working days is specified without the modifier "original" in the context of the number of working days to complete the work, interpret the number as the number of original working days as adjusted by any time adjustment.

Replace "Contract" in the definition of "early completion time" in section 1-1.07B with:

10-19-12

work

Replace "excusable delay" and its definition in section 1-1.07B with:

10-19-12

delay: Event that extends the completion of an activity.

2. For an informal-bid contract, you may obtain them at the Bidders' Exchange street address

Add a paragraph break between the 1st and 2nd sentences of the 5th paragraph of section 2-1.06B. 01-20-12

Add between "and" and "are" in item 2 in the list in the 7th paragraph of section 2-1.06B:

they

04-20-12

Delete "Underutilized" in "Underutilized Disadvantaged Business Enterprises" in the heading of section 2-1.12B. 06-20-12

Delete *U* in *UDBE* at each occurrence in section 2-1.12B. 06-20-12

Replace the 2nd paragraph of section 2-1.12B(1) with:

To ensure equal participation of DBEs provided in 49 CFR 26.5, the Department shows a goal for DBEs. 06-20-12

Delete the 3rd paragraph of section 2-1.12B(1): 06-20-12

Replace the 7th paragraph of section 2-1.12B(1) with:

All DBE participation will count toward the Department's federally-mandated statewide overall DBE goal. 06-20-12

Replace "offered" at the end of the 2nd sentence of item 7 in the list of 2nd paragraph of section 2-1.12B(3) with:

provided

06-20-12

Delete the 2nd paragraph of section 2-1.33A. 01-20-12

Replace the 3rd paragraph of section 2-1.33A with:

Except for each subcontracted bid item number and corresponding percentage and proof of each required SSPC QP certification, do not fax submittals. 01-20-12

Add to section 2-1.33C:

10-19-12

On the *Subcontractor List*, you must either submit each subcontracted bid item number and corresponding percentage with your bid or fax these numbers and percentages to (916) 227-6282 within 24 hours after bid opening. Failure to do so results in a nonresponsive bid.

Replace the paragraph in section 2-1.35 with:

01-20-12

Submit proof of each required SSPC QP certification with your bid or fax it to (916) 227-6282 no later than 4:00 p.m. on the 2nd business day after bid opening. Failure to do so results in a nonresponsive bid.

^^

3 CONTRACT AWARD AND EXECUTION

10-19-12

Add to the end of section 3-1.04:

10-19-12

You may request to extend the award period by faxing a request to (916) 227-6282 before 4:00 p.m. on the last day of the award period. If you do not make this request, after the specified award period:

- 1. Your bid becomes invalid
- 2. You are not eligible for the award of the contract

Replace the paragraph in section 3-1.11 with:

10-19-12

Complete and deliver to the Office Engineer a *Payee Data Record* when requested by the Department.

Replace section 3-1.13 with:

07-27-12

3-1.13 FORM FHWA-1273

For a federal-aid contract, form FHWA-1273 is included with the Contract form in the documents sent to the successful bidder for execution. Comply with its provisions. Interpret the training and promotion section as specified in section 7-1.11A.

Add to item 1 in the list in the 2nd paragraph of section 3-1.18:

07-27-12

, including the attached form FHWA-1273

Delete item 4 of the 2nd paragraph of section 3-1.18.

10-19-12

^^

5 CONTROL OF WORK

10-19-12

Add between "million" and ", professionally" in the 3rd paragraph of section 5-1.09A:

and 100 or more working days

10-19-12

Add to the list in the 4th paragraph of section 5-1.09A:

9. Considering discussing with and involving all stakeholders in evaluating potential VECsPs

10-19-12

Add to the end of item 1.1 in the list in the 7th paragraph of section 5-1.09A:

, including VECsPs

10-19-12

Replace the 1st paragraph of section 5-1.09C with:

For a contract with a total bid over \$10 million and 100 or more working days, training in partnering skills development is required.

10-19-12

Delete the 2nd paragraph of section 5-1.09C.

10-19-12

Replace "at least 2 representatives" in the 5th paragraph of section 5-1.09C with:

field supervisory personnel

10-19-12

Replace the 1st and 2nd sentences in the 7th paragraph of section 5-1.13B(1) with:

If a DBE is decertified before completing its work, the DBE must notify you in writing of the decertification date. If a business becomes a certified DBE before completing its work, the business must notify you in writing of the certification date.

06-20-12

Replace "90" in the last sentence of the 7th paragraph of section 5-1.13B(1) with:

30

06-20-12

Replace "Underutilized" in "Underutilized Disadvantaged Business Enterprises" in the heading of section 5-1.13B(2) with:

Performance of

06-20-12

06-20-12

Delete *U* in *UDBE* at each occurrence in section 5-1.13B(2).

Replace the 3rd paragraph of section 5-1.13B(2) with:

06-20-12

Do not terminate or substitute a listed DBE for convenience and perform the work with your own forces or obtain materials from other sources without authorization from the Department.

Replace item 6 in the list in the 4th paragraph of section 5-1.13B(2) with:

06-20-12

6. Listed DBE is ineligible to work on the project because of suspension or debarment.

Add to the list in the 4th paragraph of section 5-1.13B(2):

06-20-12

8. Listed DBE voluntarily withdraws with written notice from the Contract.
9. Listed DBE is ineligible to receive credit for the type of work required.
10. Listed DBE owner dies or becomes disabled resulting in the inability to perform the work on the Contract.
11. Department determines other documented good cause.

Add between the 4th and 5th paragraphs of section 5-1.13B(2):

07-20-12

Notify the original DBE of your intent to use other forces or material sources and provide the reasons. Provide the DBE with 5 days to respond to your notice and advise you and the Department of the reasons why the use of other forces or sources of materials should not occur. Your request to use other forces or material sources must include:

1. 1 or more of the reasons listed in the preceding paragraph
2. Notices from you to the DBE regarding the request
3. Notices from the DBE to you regarding the request

Add between "terminated" and ", you" in the 5th paragraph of section 5-1.13B(2):

07-20-12

or substituted

Replace "Contract" in item 1 in the list in the 5th paragraph of section 5-1.13C with:

10-19-12

work

Replace "Reserved" in section 5-1.20C with:

10-19-12

If the Contract includes an agreement with a railroad company, the Department makes the provisions of the agreement available in the *Information Handout* in the document titled "Railroad Relations and Insurance Requirements." Comply with the requirements in the document.

Add between the 2nd and 3rd paragraphs of section 5-1.23A:

10-19-12

Submit action and informational submittals to the Engineer.

Add to section 5-1.36C:

07-20-12

If the Contract does not include an agreement with a railroad company, do not allow personnel or equipment on railroad property.

Prevent material, equipment, and debris from falling onto railroad property.

Add between the 1st and 2nd paragraphs of section 5-1.37A:

10-19-12

Do not remove any padlock used to secure a portion of the work until the Engineer is present to replace it. Notify the Engineer at least 3 days before removing the lock.

Replace the 1st sentence of the 1st paragraph of section 5-1.39C(2) with:

10-19-12

Section 5-1.39C(2) applies if a plant establishment period of 3 years or more is shown on the *Notice to Bidders*.

Replace "working days" in the 1st paragraph of section 5-1.43E(1)(a) with:

10-19-12

original working days

^^

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

07-27-12

Replace "20 days" in the 14th paragraph of section 7-1.04 with:

09-16-11

25 days

Replace "90 days" in the 14th paragraph of section 7-1.04 with:

09-16-11

125 days

Add between the 18th and 19th paragraphs of section 7-1.04:

09-16-11

Temporary facilities that could be a hazard to public safety if improperly designed must comply with design requirements described in the Contract for those facilities or, if none are described, with standard design criteria or codes appropriate for the facility involved. Submit shop drawings and design calculations for the temporary facilities and show the standard design criteria or codes used.

Shop drawings and supplemental calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

Replace the 2nd paragraph of section 7-1.11A with:

07-27-12

A copy of form FHWA-1273 is included in section 7-1.11B. The training and promotion section of section II refers to training provisions as if they were included in the special provisions. The Department specifies the provisions in section 7-1.11D of the *Standard Specifications*. If a number of trainees or apprentices is required, the Department shows the number on the *Notice to Bidders*. Interpret each FHWA-1273 clause shown in the following table as having the same meaning as the corresponding Department clause:

FHWA-1273 Nondiscrimination Clauses

FHWA-1273 section	FHWA-1273 clause	Department clause
Training and Promotion	In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.	If section 7-1.11D applies, section 7-1.11D supersedes this subparagraph.
Records and Reports	If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.	If the Contract requires on-the-job training, collect and report training data.

Replace the form in section 7-1.11B with:

07-20-12

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and
- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Replace "8-1.02D(1)" in the 2nd paragraph of section 8-1.02D(1) with:

8-1.02C(1)

01-20-12

Replace "Contract" in the 3rd paragraph of section 8-1.02D(2) with:

work

10-19-12

Replace "Contract" in item 9 in the list in the 4th paragraph of section 8-1.02D(4) with:

work

10-19-12

Replace "Contract completion" in the 4th paragraph of section 8-1.02D(6) with:

work completion

10-19-12

Replace "Contract working days" in the 4th paragraph of section 8-1.02D(6) with:

original working days

10-19-12

Delete items 1.3 and 1.4 in the list in the 1st paragraph of section 8-1.02D(10).

04-20-12

Replace the last paragraph of section 8-1.04B with:

The Department does not adjust time for starting before receiving notice of Contract approval.

10-19-12

Replace the 1st paragraph of section 8-1.05 with:

Contract time starts on the last day specified to start job site activities in section 8-1.04 or on the day you start job site activities, whichever occurs first.

10-19-12

Replace the 2nd paragraph of section 8-1.05 with:

Complete the work within the Contract time.

10-19-12

Delete "unless the Contract is suspended for reasons unrelated to your performance" in the 4th paragraph of section 8-1.05.

10-19-12

Replace the headings and paragraphs in section 8-1.06 with:

The Engineer may suspend work wholly or in part due to conditions unsuitable for work progress. Provide for public safety and a smooth and unobstructed passageway through the work zone during

10-19-12

the suspension as specified under sections 7-1.03 and 7-1.04. Providing the passageway is force account work. The Department makes a time adjustment for the suspension due to a critical delay.

The Engineer may suspend work wholly or in part due to your failure to (1) fulfill the Engineer's orders, (2) fulfill a Contract part, or (3) perform weather-dependent work when conditions are favorable so that weather-related unsuitable conditions are avoided or do not occur. The Department may provide for a smooth and unobstructed passageway through the work during the suspension and deduct the cost from payments. The Department does not make a time adjustment for the suspension.

Upon the Engineer's order of suspension, suspend work immediately. Resume work when ordered.

Replace the 1st sentence in the 1st paragraph of section 8-1.07B with:

10-19-12

For a critical delay, the Department may make a time adjustment.

Add to the end of section 8-1.07C:

10-19-12

The Department does not make a payment adjustment for overhead incurred during non-working days that extend the Contract into an additional construction season.

Replace the 1st paragraph of section 8-1.07C with:

10-19-12

For an excusable delay that affects your costs, the Department may make a payment adjustment.

Replace "8-1.08B and 8-1.08C" in the 1st paragraph of section 8-1.10A with:

08-05-11

8-1.10B and 8-1.10C

Replace section 8-1.10D with:

10-19-12

8-1.10D Reserved

^^

9 PAYMENT

01-18-13

Replace item 1 in the 3rd paragraph of section 9-1.03 with:

01-18-13

- 1. Full compensation for all work involved in each bid item shown on the Bid Item List by the unit of measure shown for that bid item

Replace "in" in the 3rd paragraph of section 9-1.04A with:

10-19-12

for

Add to the end of section 9-1.04A:

10-19-12

For nonsubcontracted work paid by force account for a contract with a TRO bid item, the markups are those shown in the following table instead of those specified in sections 9-1.04B–D:

Cost	Percent markup
Labor	30
Materials	10
Equipment rental	10

Delete ", Huntington Beach," in the 3rd paragraph of section 9-1.07A.

04-20-12

Replace the formula in section 9-1.07B(2) with:

$$Q_h = HMATT \times X_a$$

04-20-12

Replace "weight of dry aggregate" in the definition of the variable X_a in section 9-1.07B(2) with:

total weight of HMA

04-20-12

Replace the formula in section 9-1.07B(3) with:

$$Q_{rh} = RHMATT \times 0.80 \times X_{arb}$$

04-20-12

Replace "weight of dry aggregate" in the definition of the variable X_{arb} in section 9-1.07B(3) with:

total weight of rubberized HMA

04-20-12

Replace the heading of section 9-1.07B(4) with:

Hot Mix Asphalt with Modified Asphalt Binder

04-20-12

Add between "in" and "modified" in the introductory clause of section 9-1.07B(4):

HMA with

04-20-12

Replace the formula in section 9-1.07B(4) with:

$$Q_{mh} = MHMATT \times [(100 - X_{am}) / 100] \times X_{mab}$$

04-20-12

Replace "weight of dry aggregate" in the definition of the variable X_{mab} in section 9-1.07B(4) with:

04-20-12

total weight of HMA

Replace the formula in section 9-1.07B(5) with:

04-20-12

$Q_{rap} = HMATT \times X_{aa}$

Replace "weight of dry aggregate" in the definitions of the variables X_{aa} and X_{ta} in section 9-1.07B(5) with:

04-20-12

total weight of HMA

Add after the variable definitions in section 9-1.07B(9):

04-20-12

The quantity of extender oil is included in the quantity of asphalt.

Replace the headings and paragraphs in section 9-1.11 with:

10-19-12

9-1.11A General

Section 9-1.11 applies if a bid item for time-related overhead is included in the Contract. If a bid item for time-related overhead is included, you must exclude the time-related overhead from every other bid item price.

9-1.11B Payment Quantity

The TRO quantity does not include the number of working days to complete plant establishment work.

For a contract with a TRO lump sum quantity on the Bid Item List, the Department pays you based on the following conversions:

1. LS unit of measure is replaced with WDAY
2. Lump sum quantity is replaced with the number of working days bid
3. Lump sum unit price is replaced with the item total divided by the number of working days bid

9-1.11C Payment Inclusions

Payment for the TRO bid item includes payment for time-related field- and home-office overhead for the time required to complete the work.

The field office overhead includes time-related expenses associated with the normal and recurring construction activities not directly attributed to the work, including:

1. Salaries, benefits, and equipment costs of:
 - 1.1. Project managers
 - 1.2. General superintendents
 - 1.3. Field office managers
 - 1.4. Field office staff assigned to the project
2. Rent
3. Utilities
4. Maintenance

5. Security
6. Supplies
7. Office equipment costs for the project's field office

The home-office overhead includes the fixed general and administrative expenses for operating your business, including:

1. General administration
2. Insurance
3. Personnel and subcontract administration
4. Purchasing
5. Accounting
6. Project engineering and estimating

Payment for the TRO bid item does not include payment for:

1. The home-office overhead expenses specifically related to:
 - 1.1. Your other contracts or other businesses
 - 1.2. Equipment coordination
 - 1.3. Material deliveries
 - 1.4. Consultant and legal fees
2. Non-time-related costs and expenses such as mobilization, licenses, permits, and other charges incurred once during the Contract
3. Additional overhead involved in incentive/disincentive provisions to satisfy an internal milestone or multiple calendar requirements
4. Additional overhead involved in performing additional work that is not a controlling activity
5. Overhead costs incurred by your subcontractors of any tier or suppliers

9-1.11D Payment Schedule

For progress payments, the total work completed for the TRO bid item is the number of working days shown for the pay period on the *Weekly Statement of Working Days*.

For progress payments, the Department pays a unit price equal to the lesser of the following amounts:

1. Price per working day as bid or as converted under section 9-1.11B.
2. 20 percent of the total bid divided by the number of original working days

For a contract without plant establishment work, the Department pays you the balance due of the TRO item total as specified in section 9-1.17B.

For a contract with plant establishment work, the Department pays you the balance due of the TRO item total in the 1st progress payment after all non-plant establishment work is completed.

9-1.11E Payment Adjustments

The 3rd paragraph of section 9-1.17C does not apply.

The Department does not adjust the unit price for an increase or decrease in the TRO quantity except as specified in section 9-1.11E.

Section 9-1.17D(2)(b) does not apply except as specified for the audit report below.

If the TRO bid item quantity exceeds 149 percent of the quantity shown on the Bid Item List or as converted under section 9-1.11B, the Engineer may adjust or you may request an adjustment of the unit price for the excess quantity. For the adjustment, submit an audit report within 60 days of the Engineer's request. The report must be prepared as specified for an audit report for an overhead claim in section 9-1.17D(2)(b).

Replace "Reserved" in section 10-2.01 with:

07-20-12

10-2.01A General

Reserved

10-2.01B–10-2.01H Reserved

Replace the heading of section 10-2.02 with:

07-20-12

CALGREEN TIER 1

Replace section 10-2.03 with:

07-20-12

10-2.03 LEED

10-2.03A–10-2.03H Reserved

^^

12 TEMPORARY TRAFFIC CONTROL

10-19-12

Replace the 1st paragraph of section 12-3.01A(4) with:

10-19-12

Category 2 temporary traffic control devices must be on FHWA's list of acceptable, crashworthy Category 2 hardware for work zones. This list is available on FHWA's Safety Program Web site.

Replace "project" in the 4th paragraph of section 12-3.02C with:

10-19-12

work

Replace "project" in the 3rd paragraph of section 12-3.07C with:

10-19-12

work

Add between the 7th and 8th paragraphs of section 12-4.03:

10-19-12

The contingency plan must identify the operations, equipment, processes, and materials that may fail and delay a reopening of a closure to traffic. List the additional or alternate equipment, materials, or workers necessary to ensure continuing operations and on-time opening of closures whenever a problem occurs. If the additional or alternate equipment, materials, or workers are not on site, specify their location, the method for mobilizing these items, and the required time to complete mobilization.

Based on the Engineer's review, additional materials, equipment, workers, or time to complete operations from that specified in the contingency plan may be required.

1. Comply with the specifications for section 75 except that galvanizing is not required
2. Have a shape and size that matches the existing frame
3. Be match marked by painting identification numbers on the device and corresponding structure
4. Result in an installation that is equal to or better than the existing one in stability, support, and nonrocking characteristics
5. Be fastened securely to the existing frame without projections above the surface of the road or into the clear opening

Replace the 1st paragraph of section 15-5.01C(1) with:

10-19-12

Before starting deck rehabilitation activities, complete the removal of any traffic stripes, pavement markings, and pavement markers.

Replace the 2nd and 3rd paragraphs of section 15-5.01C(2) with:

10-19-12

Perform the following activities in the order listed:

1. Abrasive blast the deck surface with steel shot. Perform abrasive blasting after the removal of any unsound concrete and placement of any rapid setting concrete patches.
2. Sweep the deck surface.
3. Blow the deck surface clean using high-pressure air.

Replace the 2nd paragraph of section 15-5.01C(4) with:

10-19-12

Before removing asphalt concrete surfacing, verify the depth of the surfacing at the supports and midspans of each structure (1) in each shoulder, (2) in the traveled way, and (3) at the roadway crown, if a crown is present.

Replace the 2nd paragraph of section 15-5.03A(2) with:

10-19-12

For a contract with less than 60 original working days, submit certificates of compliance for the filler material and bonding agents.

Replace the 4th paragraph of section 15-5.03B with:

10-19-12

For a contract with less than 60 original working days, alternative materials must be authorized before use.

Add between the 5th and 6th paragraphs of section 15-5.03C:

10-19-12

The final surface finish of the patched concrete surface must comply with section 51-1.03F.

Delete the 4th paragraph of section 15-5.05C.

10-19-12

01-20-12

Delete the 2nd sentence in the 4th paragraph of section 19-3.01A(3)(b).

Replace "90" in the paragraph of section 19-3.02G with:

01-18-13

90-1

Replace the 1st paragraph of section 19-3.03E(3) with:

01-20-12

Compact structure backfill behind lagging of soldier pile walls by hand tamping, mechanical compaction, or other authorized means.

Replace the 2nd paragraph of section 19-3.03F with:

01-20-12

Do not backfill over or place material over slurry cement backfill until 4 hours after placement. When concrete sand is used as aggregate and the in-place material is free draining, you may start backfilling as soon as the surface water is gone.

Add between the 2nd and 3rd paragraphs of section 19-3.03K:

01-20-12

Before you excavate for the installation of ground anchors in a wall zone:

1. Complete stability testing
2. Obtain authorization of test data

Replace the 2nd sentence of the 7th paragraph of section 19-3.03K:

01-20-12

Stop construction in unstable areas until remedial measures have been taken. Remedial measures must be submitted and authorized.

Add between the 8th and 9th paragraphs of section 19-3.03K:

01-20-12

When your excavation and installation methods result in a discontinuous wall along any soil nail row, the ends of the structurally completed wall section must extend beyond the ends of the next lower excavation lift by a distance equal to twice the lift height. Maintain temporary slopes at the ends of each wall section to ensure slope stability.

Replace the 9th paragraph of section 19-3.03K:

01-20-12

Do not excavate to the next underlying excavation lift until the following conditions have been attained for the portion of the soil nail or ground anchor wall in the current excavation lift:

1. Soil nails or ground anchors are installed and grouted.
2. Reinforced shotcrete facing is constructed.

DIVISION V SURFACINGS AND PAVEMENTS

37 BITUMINOUS SEALS

01-18-13

Replace section 37-1.01 with:

01-18-13

37-1.01 GENERAL

37-1.01A Summary

Section 37-1 includes general specifications for applying bituminous seals.

37-1.01B Definitions

Reserved

37-1.01C Submittals

Reserved

37-1.01D Quality Control and Assurance

37-1.01D(1) General

Reserved

37-1.01D(2) Prepaving Conference

For seal coats and micro-surfacing, schedule a prepaving conference at a mutually agreed upon time and place to meet with the Engineer.

Prepaving conference attendees must sign an attendance sheet provided by the Engineer. The prepaving conference must be attended by your:

1. Project superintendent
2. Paving construction foreman
3. Traffic control foreman

Be prepared to discuss:

1. Quality control
2. Acceptance testing
3. Placement
4. Training on placement methods
5. Checklist of items for proper placement
6. Unique issues specific to the project, including:
 - 6.1. Weather
 - 6.2. Alignment and geometrics
 - 6.3. Traffic control issues
 - 6.4. Haul distances
 - 6.5. Presence and absence of shaded areas
 - 6.6. Any other local issues

37-1.02 MATERIALS

Not Used

37-1.03 CONSTRUCTION

Not Used

37-1.04 PAYMENT

Not Used

Replace "Reserved" in section 37-2.01D(1) with:

01-18-13

Aggregate suppliers, chip spreader operators, emulsion distributor, and for coated chips, the coated chips producer must attend the prepaving conference.

Add to section 37-2.03A:

04-20-12

If you fail to place the permanent traffic stripes and pavement markings within the specified time, the Department withholds 50 percent of the estimated value of the seal coat work completed that has not received permanent traffic stripes and pavement markings.

Add to section 37-3.01D(1):

01-18-13

Micro-surfacing spreader operators must attend the prepaving conference.

^^

39 HOT MIX ASPHALT

02-22-13

Add to section 39-1.01B:

02-22-13

processed RAP: RAP that has been fractionated.

substitution rate: Amount of RAP aggregate substituted for virgin aggregate in percent.

binder replacement: Amount of RAP binder in OBC in percent.

surface course: Upper 0.2 feet of HMA exclusive of OGFC.

Add to the end of the paragraph in section 39-1.02A:

10-19-12

as shown

Replace the paragraphs in section 39-1.02F with:

02-22-13

39-1.02F(1) General

You may produce HMA Type A or B using RAP. HMA produced using RAP must comply with the specifications for HMA, except aggregate quality specifications do not apply to RAP. You may substitute RAP at a substitution rate not exceeding 25 percent of the aggregate blend. Do not use RAP in OGFC and RHMA-G.

Assign the substitution rate of RAP aggregate for virgin aggregate with the JMF submittal. The JMF must include the percent of RAP used.

Provide enough space for meeting RAP handling requirements at your facility. Provide a clean, graded, well-drained area for stockpiles. Prevent material contamination and segregation.

If RAP is from multiple sources, blend the RAP thoroughly and completely. RAP stockpiles must be homogeneous.

Isolate the processed RAP stockpiles from other materials. Store processed RAP in conical or longitudinal stockpiles. Processed RAP must not be agglomerated or be allowed to congeal in large stockpiles.

AASHTO T 324 (Modified) is AASHTO T 324, "Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)," with the following parameters:

1. Target air voids must equal 7 ± 1 percent
2. Number of test specimens must be 4
3. Test specimen must be a 6-inch gyratory compacted specimen
4. Test temperature must be set at 140 ± 2 degrees F
5. Measurements for impression must be taken at every 100 passes
6. Inflection point defined as the number of wheel passes at the intersection of the creep slope and the stripping slope
7. Testing shut off must be set at 25,000 passes

39-1.02F(2) Substitution Rate of 15 Percent or Less

For a RAP substitution rate of 15 percent or less, you may stockpile RAP during the entire project.

39-1.02F(3) Substitution Rate Greater than 15 Percent

For a RAP substitution rate greater than 15 percent, fractionate RAP into 2 sizes, a coarse fraction RAP retained on 1/4-inch screen and a fine fraction RAP passing 1/4-inch screen.

Sample and test processed RAP at a minimum frequency of 1 sample per 1000 tons with a minimum of 6 samples for each processed RAP stockpile. The asphalt binder content and specific gravity must meet the processed RAP quality characteristics. If a processed RAP stockpile is augmented, sample and test processed RAP quality characteristics at a minimum frequency of 1 sample per 500 tons of augmented RAP.

The processed RAP asphalt binder content must be within ± 2.0 percent of the average processed RAP stockpile asphalt binder content when tested under ASTM D 2172, Method B. If a new processed RAP stockpile is required, the average binder content of the new processed RAP stockpile must be within ± 2.0 percent of the average binder content of the original processed RAP stockpile.

The maximum specific gravity for processed RAP must be within ± 0.06 when tested under California Test 309 of the average maximum specific gravity reported on page 4 of your *Contractor Hot Mix Asphalt Design Data* form.

Replace "less than 10 percent" in note "b" in the table in the 5th paragraph of section 39-1.02E with:

10 percent or less

01-20-12

Replace items 7 and 8 in the 5th paragraph of section 39-1.03A with:

7. Substitution rate by more than 5 percent if your assigned RAP substitution rate is 15 percent or less
8. Substitution rate by more than 3 percent if your assigned RAP substitution rate is greater than 15 percent
9. Average binder content by more than 2 percent from the average binder content of the original processed RAP stockpile used in the mix design
10. Maximum specific gravity of processed RAP by more than ± 0.060 from the average maximum specific gravity of processed RAP reported on page 4 of your *Contractor Hot Mix Asphalt Design Data* form

02-22-13

11. Any material in the JMF

Replace the 1st paragraph of section 39-1.03B with:

02-22-13

Perform a mix design that produces HMA with the values for the quality characteristics shown in the following table:

HMA Mix Design Requirements

Quality characteristic	Test method	HMA type		
		A	B	RHMA-G
Air void content (%)	California Test 367	4.0	4.0	Section 39-1.03B
Voids in mineral aggregate (% min.)	California Test 367			
No. 4 grading		17.0	17.0	--
3/8" grading		15.0	15.0	--
1/2" grading		14.0	14.0	18.0–23.0
3/4" grading		13.0	13.0	18.0–23.0
Voids filled with asphalt (%)	California Test 367			Note a
No. 4 grading		65.0–75.0	65.0–75.0	
3/8" grading		65.0–75.0	65.0–75.0	
1/2" grading		65.0–75.0	65.0–75.0	
3/4" grading		65.0–75.0	65.0–75.0	
Dust proportion	California Test 367			Note a
No. 4 and 3/8" gradings		0.6–1.2	0.6–1.2	
1/2" and 3/4" gradings		0.6–1.2	0.6–1.2	
Stabilometer value (min.)	California Test 366			
No. 4 and 3/8" gradings		30	30	--
1/2" and 3/4" gradings		37	35	23

^a Report this value in the JMF submittal.

For RAP substitution rate greater than 15 percent, the mix design must comply with the additional quality characteristics shown in the following table:

**Additional HMA Mix Design Requirements
for RAP Substitution Rate Greater Than 15 Percent**

Quality characteristic	Test method	HMA type		
		A	B	RHMA-G
Hamburg wheel track (minimum number of passes at 0.5 inch average rut depth)	AASHTO T 324 (Modified) ^a			
PG-58		10,000	10,000	--
PG-64		15,000	15,000	
PG-70		20,000	20,000	
PG-76 or higher		25,000	25,000	
Hamburg wheel track (inflection point minimum number of passes) ^f	AASHTO T 324 (Modified) ^a			
PG-58		10,000	10,000	--
PG-64		10,000	10,000	
PG-70		12,500	12,500	
PG-76 or higher		15000	15000	
Moisture susceptibility (minimum dry strength, psi)	California Test 371 ^a	120	120	--
Moisture susceptibility (tensile strength ratio, %)	California Test 371 ^a	70	70	--

^aTest plant produced HMA.

For HMA with RAP, the maximum binder replacement must be 25.0 percent of OBC for surface course and 40.0 percent of OBC for lower courses.

For HMA with a binder replacement less than or equal to 25 percent of OBC, you may request that the PG asphalt binder grade with upper and lower temperature classifications be reduced by 6 degrees C from the specified grade.

For HMA with a binder replacement greater than 25 percent but less than or equal to 40 percent of OBC, you must use a PG asphalt binder grade with upper and lower temperature classifications reduced by 6 degrees C from the specified grade.

Replace item 4 in the list in the 1st paragraph of section 39-1.03C with:

4. JMF renewal on a *Caltrans Job Mix Formula Renewal* form, if applicable

01-20-12

Add after the last paragraph of section 39-1.03C:

02-22-13

For RAP substitution rate greater than 15 percent, submit with the JMF submittal:

- California Test 371 tensile strength ratio and minimum dry strength test results
- AASHTO T 324 (Modified) test results

For RAP substitution rate greater than 15 percent, submit California Test 371 and AASHTO T 324 (Modified) test results to the Engineer and to:

Moisture_Tests@dot.ca.gov

Replace the 2nd paragraph of section 39-1.03E with:

04-20-12

Use the OBC specified on your *Contractor Hot Mix Asphalt Design Data* form. No adjustments to asphalt binder content are allowed. Based on your testing and production experience, you may submit an adjusted aggregate gradation TV on a *Contractor Job Mix Formula Proposal* form before verification testing. Aggregate gradation TV must be within the TV limits specified in the aggregate gradation tables.

Add between the 3rd and 4th paragraphs of section 39-1.03E:

04-20-12

Asphalt binder set point for HMA must be the OBC specified on your *Contractor Hot Mix Asphalt Design Data* form. When RAP is used, asphalt binder set point for HMA must be:

$$\text{Asphalt Binder Set Point} = \frac{\frac{BC_{OBC}}{\left(1 - \frac{BC_{OBC}}{100}\right)} - R_{RAP} \left[\frac{BC_{RAP}}{\left(1 - \frac{BC_{RAP}}{100}\right)} \right]}{100 + \frac{BC_{OBC}}{\left(1 - \frac{BC_{OBC}}{100}\right)}}$$

Where:

BC_{OBC} = optimum asphalt binder content, percent based on total weight of mix

R_{RAP} = RAP ratio by weight of aggregate

BC_{RAP} = asphalt binder content of RAP, percent based on total weight of RAP mix

Replace item 4 in the list in the 8th paragraph of section 39-1.03E with:

04-20-12

4. HMA quality specified in the table titled "HMA Mix Design Requirements" except:
 - 4.1. Air void content, design value ± 2.0 percent
 - 4.2. Voids filled with asphalt, report only
 - 4.3. Dust proportion, report only

Replace the 12th paragraph of section 39-1.03E with:

04-20-12

If tests on plant-produced samples do not verify the JMF, the Engineer notifies you and you must submit a new JMF or submit an adjusted JMF based on your testing. JMF adjustments may include a change in aggregate gradation TV within the TV limits specified in the aggregate gradation tables.

Replace the 14th paragraph of section 39-1.03E with:

01-20-12

A verified JMF is valid for 12 months.

Replace the last sentence in the 15th paragraph of section 39-1.03E with:

01-20-12

This deduction does not apply to verifications initiated by the Engineer or JMF renewal.

Replace the 16th paragraph of section 39-1.03E with:

02-22-13

Except for RAP substitution rate greater than 15 percent, for any HMA produced under the QC/QA process the Department does not use California Test 371 test results for verification.

Add between the 1st and 2nd paragraphs of section 39-1.03F:

04-20-12

Target asphalt binder content on your Contractor *Job Mix Formula Proposal* form and the OBC specified on your *Contractor Hot Mix Asphalt Design Data* form must be the same.

Delete the 4th paragraph of section 39-1.03F.

01-20-12

Replace items 3 and 5 in the list in the 6th paragraph of section 39-1.03F with:

01-20-12

3. Engineer verifies each proposed JMF renewal within 20 days of receiving verification samples.
5. For each HMA type and aggregate gradation specified, the Engineer verifies at the Department's expense 1 proposed JMF renewal within a 12-month period.

Add between the 6th and 7th paragraphs of section 39-1.03F:

01-20-12

The most recent aggregate quality test results within the past 12 months may be used for verification of JMF renewal or the Engineer may perform aggregate quality tests for verification of JMF renewal.

Replace section 39-1.03G with:

04-20-12

39-1.03G Job Mix Formula Modification

For an accepted JMF, you may change asphalt binder source one time during production.

Submit your modified JMF request a minimum of 3 business days before production. Each modified JMF submittal must consist of:

1. Proposed modified JMF on *Contractor Job Mix Formula Proposal* form
2. Mix design records on *Contractor Hot Mix Asphalt Design Data* form for the accepted JMF to be modified
3. JMF verification on *Hot Mix Asphalt Verification* form for the accepted JMF to be modified
4. Quality characteristics test results for the modified JMF as specified in section 39-1.03B. Perform tests at the mix design OBC as shown on the *Contractor Asphalt Mix Design Data* form
5. If required, California Test 371 test results for the modified JMF.

With an accepted modified JMF submittal, the Engineer verifies each modified JMF within 5 business days of receiving all verification samples. If California Test 371 is required, the Engineer tests for California Test 371 within 10 days of receiving verification samples.

The Engineer verifies the modified JMF after the modified JMF HMA is placed on the project and verification samples are taken within the first 750 tons following sampling requirements in section

39-1.03E, "Job Mix Formula Verification." The Engineer tests verification samples for compliance with:

1. Stability as shown in the table titled "HMA Mix Design Requirements"
2. Air void content at design value ± 2.0 percent
3. Voids in mineral aggregate as shown in the table titled "HMA Mix Design Requirements"
4. Voids filled with asphalt, report only
5. Dust proportion, report only

If the modified JMF is verified, the Engineer revises your *Hot Mix Asphalt Verification* form to include the new asphalt binder source. Your revised form will have the same expiration date as the original form.

If a modified JMF is not verified, stop production and any HMA placed using the modified JMF is rejected.

The Engineer deducts \$2,000 from payments for each modified JMF verification. The Engineer deducts an additional \$2,000 for each modified JMF verification that requires California Test 371.

Add to section 39-1.03:

01-20-12

39-1.03H Job Mix Formula Acceptance

You may start HMA production if:

1. The Engineer's review of the JMF shows compliance with the specifications.
2. The Department has verified the JMF within 12 months before HMA production.
3. The Engineer accepts the verified JMF.

Replace "3 days" in the 1st paragraph of section 39-1.04A with:

3 business days

01-20-12

Replace the 2nd sentence in the 2nd paragraph of section 39-1.04A with:

During production, take samples under California Test 125. You may sample HMA from:

01-20-12

Replace the 2nd paragraph of section 39-1.04E with:

For RAP substitution rate of 15 percent or less, sample RAP once daily.

For RAP substitution rate of greater than 15percent, sample processed RAP twice daily.

Perform QC testing for processed RAP aggregate gradation under California Test 367, appendix B, and submit the results with the combined aggregate gradation.

02-22-13

Replace "5 days" in the 1st paragraph of section 39-1.06 with:

5 business days

01-20-12

Replace the 3rd paragraph of section 39-1.08A with:

04-20-12

During production, you may adjust hot or cold feed proportion controls for virgin aggregate and RAP.

Add to section 39-1.08A:

04-20-12

During production, asphalt binder set point for HMA Type A, HMA Type B, HMA Type C, and RHMA-G must be the OBC shown in *Contractor Hot Mix Asphalt Design Data* form. For OGFC, asphalt binder set point must be the OBC shown on *Caltrans Hot Mix Asphalt Verification* form. If RAP is used, asphalt binder set point for HMA must be calculated as specified in section 39-1.03E.

02-22-13

For RAP substitution rate of 15 percent or less, you may adjust the RAP by ± 5 percent.

For RAP substitution greater than 15, you may adjust the RAP by ± 3 percent.

04-20-12

You must request adjustments to the plant asphalt binder set point based on new RAP stockpiles average asphalt binder content. Do not adjust the HMA plant asphalt binder set point until authorized.

Replace the 3rd paragraph of section 39-1.08B with:

09-16-11

Asphalt rubber binder must be from 375 to 425 degrees F when mixed with aggregate.

Replace section 39-1.11 with:

01-18-13

39-1.11 CONSTRUCTION**39-1.11A General**

Do not place HMA on wet pavement or a frozen surface.

You may deposit HMA in a windrow and load it in the paver if:

1. Paver is equipped with a hopper that automatically feeds the screed
2. Loading equipment can pick up the windrowed material and deposit it in the paver hopper without damaging base material
3. Activities for deposit, pickup, loading, and paving are continuous
4. HMA temperature in the windrow does not fall below 260 degrees F

You may place HMA in 1 or more layers on areas less than 5 feet wide and outside the traveled way, including shoulders. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture.

HMA handled, spread, or windrowed must not stain the finished surface of any improvement, including pavement.

Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, or compactors.

HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets

3. Hardened lumps

39-1.11B Longitudinal Joints

39-1.11B(1) General

Longitudinal joints in the top layer must match specified lane edges. Alternate the longitudinal joint offsets in the lower layers at least 0.5 foot from each side of the specified lane edges. You may request other longitudinal joint placement patterns.

A vertical longitudinal joint of more than 0.15 ft is not allowed at any time between adjacent lanes open to traffic.

For HMA thickness of 0.15 ft or less, the distance between the ends of the adjacent surfaced lanes at the end of each day's work must not be greater than can be completed in the following day of normal paving.

For HMA thickness greater than 0.15 ft, you must place HMA on adjacent traveled way lanes so that at the end of each work shift the distance between the ends of HMA layers on adjacent lanes is from 5 to 10 feet. Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA to form temporary conforms. You may place Kraft paper or another authorized bond breaker under the conform tapers to facilitate the taper removal when paving operations resume.

39-1.11B(2) Tapered Notched Wedge

For divided highways with an HMA lift thickness greater than 0.15 foot, you may construct a 1-foot wide tapered notched wedge joint as a longitudinal joint between adjacent lanes open to traffic. A vertical notch of 0.75 inch maximum must be placed at the top and bottom of the tapered wedge.

The tapered notched wedge must retain its shape while exposed to traffic. Pave the adjacent lane within 1 day.

Construct the tapered portion of the tapered notched wedge with an authorized strike-off device. The strike-off device must provide a uniform slope and must not restrict the main screed of the paver.

You may use a device attached to the screed to construct longitudinal joints that will form a tapered notched wedge in a single pass. The tapered notched wedge must be compacted to a minimum of 91 percent compaction.

Perform QC testing on the completed tapered notch wedge joint as follows:

1. Perform field compaction tests at the rate of 1 test for each 750-foot section along the joint. Select random locations for testing within each 750-foot section.
2. Perform field compaction tests at the centerline of the joint, 6 inches from the upper vertical notch, after the adjacent lane is placed and before opening the pavement to traffic.
3. Determine maximum density test results.
4. Determine percent compaction of the longitudinal joint as the ratio of the average of the field compaction values and the maximum density test results.

For HMA under QC/QA construction process, the additional quality control compaction results associated with the tapered notch wedge will not be included in the computation of any quality factor and process control.

For acceptance of the completed tapered notch wedge joint, take two 4- or 6-inch diameter cores 6 inches from the upper vertical notch of the completed longitudinal joint for every 3,000 feet at locations designated by the Engineer. Take cores after the adjacent lane is placed and before opening the pavement to traffic. Cores must be taken in the presence of the Engineer and must be

marked to identify the test sites. Submit the cores. One core will be used for determination of the field density and 1 core will be used for dispute resolution. The Engineer determines:

1. Field compaction by measuring the bulk specific gravity of the cores under California Test 308, Method A
2. Percent compaction as the ratio of the average of the bulk specific gravity of the core for each day's production to the maximum density test value

For HMA under QC/QA construction process, the additional quality assurance testing by the Engineer to determine field compaction associated with the tapered notch wedge will not be included in the Engineer's verification testing and in the computation of any quality factor and process control.

Determine percent compaction values each day the joint is completed and submit values within 24 hours of testing. If the percent compaction of 1 day's production is less than 91 percent, that day's notched wedge joint is rejected. Discontinue placement of the tapered notched wedge and notify the Engineer of changes you will make to your construction process in order to meet the specifications.

For HMA under QC/QA construction process, quantities of HMA placed in the completed longitudinal joint will have a quality factor QF_{QC5} of 1.0.

39-1.11C Widening Existing Pavement

If widening existing pavement, construct new pavement structure to match the elevation of the existing pavement's edge before placing HMA over the existing pavement.

39-1.11D Shoulders, Medians, and Other Road Connections

Until the adjoining through lane's top layer has been paved, do not pave the top layer of:

1. Shoulders
2. Tapers
3. Transitions
4. Road connections
5. Driveways
6. Curve widenings
7. Chain control lanes
8. Turnouts
9. Turn pockets

If the number of lanes changes, pave each through lane's top layer before paving a tapering lane's top layer. Simultaneous to paving a through lane's top layer, you may pave an adjoining area's top layer, including shoulders. Do not operate spreading equipment on any area's top layer until completing final compaction.

39-1.11E Leveling

If leveling with HMA is specified, fill and level irregularities and ruts with HMA before spreading HMA over the base, existing surfaces, or bridge decks. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture. HMA used to change an existing surface's cross slope or profile is not paid for as HMA (leveling).

If placing HMA against the edge of existing pavement, sawcut or grind the pavement straight and vertical along the joint and remove extraneous material.

39-1.11F Compaction

Rolling must leave the completed surface compacted and smooth without tearing, cracking, or shoving. Complete finish rolling activities before the pavement surface temperature is:

1. Below 150 degrees F for HMA with unmodified binder
2. Below 140 degrees F for HMA with modified binder

3. Below 200 degrees F for RHMA-G

If a vibratory roller is used as a finish roller, turn the vibrator off.

Do not use a pneumatic-tired roller to compact RHMA-G.

For Standard and QC/QA construction processes, if 3/4-inch aggregate grading is specified, you may use a 1/2-inch aggregate grading if the specified total paved thickness is at least 0.15 foot and less than 0.20 foot thick.

Spread and compact HMA under sections 39-3.03 and 39-3.04 if any of the following applies:

1. Specified paved thickness is less than 0.15 foot.
2. Specified paved thickness is less than 0.20 foot and 3/4-inch aggregate grading is specified and used.
3. You spread and compact at:
 - 3.1. Asphalt concrete surfacing replacement areas
 - 3.2. Leveling courses
 - 3.3. Areas for which the Engineer determines conventional compaction and compaction measurement methods are impeded

Do not open new HMA pavement to public traffic until its mid-depth temperature is below 160 degrees F.

If you request and if authorized, you may cool HMA Type A and Type B with water when rolling activities are complete. Apply water under section 17-3.

Spread sand at a rate from 1 to 2 lb/sq yd on new RHMA-G, RHMA-O, and RHMA-O-HB pavement when finish rolling is complete. Sand must be free of clay or organic matter. Sand must comply with section 90-1.02C(4)(c). Keep traffic off the pavement until spreading sand is complete.

Replace the 5th and 6th paragraphs of section 39-1.12C with:

07-20-12

On tangents and horizontal curves with a centerline radius of curvature 2,000 feet or more, the PI_0 must be at most 2.5 inches per 0.1-mile section.

On horizontal curves with a centerline radius of curvature between 1,000 feet and 2,000 feet including pavement within the superelevation transitions, the PI_0 must be at most 5 inches per 0.1-mile section.

Add to section 39-1.12:

01-20-12

39-1.12E Reserved

Add to section 39-1.14:

01-20-12

Prepare the area to receive HMA for miscellaneous areas and dikes, including any excavation and backfill as needed.

Replace "6.8" in item 3 in the list in the 4th paragraph of section 39-1.14 with:

04-20-12

6.4

Replace "6.0" in item 3 in the list in the 4th paragraph of section 39-1.14 with:

5.7

04-20-12

Replace "6.8" in the 1st paragraph of section 39-1.15B with:

6.4

04-20-12

Replace "6.0" in the 1st paragraph of section 39-1.15B with:

5.7

04-20-12

Replace the 1st paragraph of section 39-2.02B with:

02-22-13

Perform sampling and testing at the specified frequency for the quality characteristics shown in the following table:

Minimum Quality Control—Standard Construction Process

Quality characteristic	Test method	Minimum sampling and testing frequency	HMA type			
			A	B	RHMA-G	OGFC
Aggregate gradation ^a	California Test 202	1 per 750 tons and any remaining part at the end of the project	JMF ± Tolerance ^b	JMF ± Tolerance ^b	JMF ± Tolerance ^b	JMF ± Tolerance ^b
Sand equivalent (min) ^c	California Test 217		47	42	47	--
Asphalt binder content (%)	California Test 379 or 382		JMF±0.40	JMF±0.40	JMF ± 0.40	JMF ± 0.40
HMA moisture content (% max)	California Test 226 or 370	1 per 2,500 tons but not less than 1 per paving day	1.0	1.0	1.0	1.0
Field compaction (% max. theoretical density) ^{d,e}	QC plan	2 per business day (min.)	91–97	91–97	91–97	--
Stabilometer value (min) ^c No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	1 per 4,000 tons or 2 per 5 business days, whichever is greater	30	30	--	--
			37	35	23	--
Air void content (%) ^{c,f}	California Test 367		4 ± 2	4 ± 2	TV ± 2	--
Aggregate moisture content at continuous mixing plants and RAP moisture content at continuous mixing plants and batch mixing plants ^g	California Test 226 or 370	2 per day during production	--	--	--	--
Percent of crushed particles coarse aggregate (% min) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	As designated in the QC plan. At least once per project	90	25	--	90
			75	--	90	75
			70	20	70	90
Los Angeles Rattler (% max)	California Test 211					

Loss at 100 rev. Loss at 500 rev.			12 45	-- 50	12 40	12 40
Flat and elongated particles (% max by weight @ 5:1)	California Test 235		Report only	Report only	Report only	Report only
Fine aggregate angularity (% min) ^h	California Test 234		45	45	45	--
Voids filled with asphalt (%) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367		65.0–75.0 65.0–75.0 65.0–75.0 65.0–75.0	65.0–75.0 65.0–75.0 65.0–75.0 65.0–75.0	Report only	--
Voids in mineral aggregate (% min) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367		17.0 15.0 14.0 13.0	17.0 15.0 14.0 13.0	-- -- 18.0–23.0 18.0–23.0	--
Dust proportion ^l No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367		0.6-1.2 0.6–1.2	0.6-1.2 0.6–1.2	Report only	--
Hamburg wheel track (minimum number of passes at 0.5 inch average rut depth) ^j PG-58 PG-64 PG-70 PG-76 or higher	AASHTO T 324 (Modified)	1 per 10,000 tons or 1 per project whichever is more	10,000 15,000 20,000 25,000	10,000 15,000 20,000 25,000	--	--
Hamburg wheel track (inflection point minimum number of passes) ^j PG-58 PG-64 PG-70 PG-76 or higher	AASHTO T 324 (Modified)	1 per 10,000 tons or 1 per project whichever is more	10,000 10,000 12,500 15000	10,000 10,000 12,500 15000	--	--
Moisture susceptibility (minimum dry strength, psi) ^j	California Test 371	For RAP ≥15% 1 per 10,000 tons or 1 per project whichever is greater	120	120	--	--

Moisture susceptibility (tensile strength ration, %) ^j	California Test 371	For RAP ≥15% 1 per 10,000 tons or 1 per project whichever is greater	70	70	--	--
Smoothness	Section 39-1.12	--	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀
Asphalt rubber binder viscosity @ 375 °F, centipoises	Section 39-1.02D	Section 39-1.04C	--	--	1,500–4,000	1,500–4,000
Asphalt modifier	Section 39-1.02D	Section 39-1.04C	--	--	Section 39-1.02D	Section 39-1.02D
CRM	Section 39-1.02D	Section 39-1.04C	--	--	Section 39-1.02D	Section 39-1.02D

^a Determine combined aggregate gradation containing RAP under California Test 367.

^b The tolerances must comply with the allowable tolerances in section 39-1.02E.

^c Report the average of 3 tests from a single split sample.

^d Determine field compaction for any of the following conditions:

1. 1/2-inch, 3/8-inch, or no. 4 aggregate grading is used and the specified total paved thickness is at least 0.15 foot.
2. 3/4-inch aggregate grading is used and the specified total paved thickness is at least 0.20 foot.

^e To determine field compaction use:

1. In-place density measurements using the method specified in your QC plan.
2. California Test 309 to determine the maximum theoretical density at the frequency specified in California Test 375, Part 5C.

^f Determine the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

^g For adjusting the plant controller at the HMA plant.

^h The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

ⁱ Report only.

^j Applies to RAP substitution rate greater than 15 percent.

Replace the 1st paragraph of section 39-2.03A with:

02-22-13

The Department samples for acceptance testing and tests for the quality characteristics shown in the following table:

HMA Acceptance—Standard Construction Process

Quality characteristic	Test method	HMA type						
		A	B	RHMA-G	OGFC			
Aggregate gradation ^a		California Test 202	JMF ± tolerance ^c	JMF ± tolerance ^c	JMF ± tolerance ^c	JMF ± tolerance ^c		
Sieve	3/4"						1/2"	3/8"
1/2"	X ^b							
3/8"							X	
No. 4								X
No. 8	X						X	X
No. 200	X						X	X
Sand equivalent (min) ^d	California Test 217	47	42	47	--			
Asphalt binder content (%)	California Test 379 or 382	JMF±0.40	JMF±0.40	JMF ± 0.40	JMF ± 0.40			
HMA moisture content (% max)	California Test 226 or 370	1.0	1.0	1.0	1.0			
Field compaction (% max. theoretical density) ^{e, f}	California Test 375	91–97	91–97	91–97	--			
Stabilometer value (min) ^d No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	30	30	--	--			
		37	35	23	--			
Air void content (%) ^{d, g}	California Test 367	4 ± 2	4 ± 2	TV ± 2	--			
Percent of crushed particles Coarse aggregate (% min) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	90	25	--	90			
		75	--	90	75			
		70	20	70	90			
Los Angeles Rattler (% max) Loss at 100 rev. Loss at 500 rev.	California Test 211	12	--	12	12			
		45	50	40	40			
Fine aggregate angularity (% min) ^h	California Test 234	45	45	45	--			
Flat and elongated particles (% max by weight @ 5:1)	California Test 235	Report only	Report only	Report only	Report only			
Voids filled with asphalt (%) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	65.0–75.0	65.0–75.0	Report only	--			
		65.0–75.0	65.0–75.0					
		65.0–75.0	65.0–75.0					
		65.0–75.0	65.0–75.0					
Voids in mineral aggregate (% min) ⁱ No. 4 grading 3/8" grading	California Test 367	17.0	17.0	--	--			
		15.0	15.0	--	--			

1/2" grading		14.0	14.0	18.0–23.0	
3/4" grading		13.0	13.0	18.0–23.0	
Dust proportion ⁱ No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367	0.6-1.2 0.6–1.2	0.6-1.2 0.6–1.2	Report only	--
Hamburg wheel track (minimum number of passes at 0.5 inch average rut depth) ^j PG-58 PG-64 PG-70 PG-76 or higher	AASHTO T 324 (Modified)	10,000 15,000 20,000 25,000	10,000 15,000 20,000 25,000	--	--
Hamburg wheel track (inflection point minimum number of passes) ^j PG-58 PG-64 PG-70 PG-76 or higher	AASHTO T 324 (Modified)	10,000 10,000 12,500 15000	10,000 10,000 12,500 15000	--	--
Moisture susceptibility (minimum dry strength, psi) ^j	California Test 371	120	120	--	--
Moisture susceptibility (tensile strength ration, %) ^j	California Test 371	70	70	--	--
Smoothness	Section 39-1.12	12-foot straight- edge, must grind, and PI ₀	12-foot straight- edge, must grind, and PI ₀	12-foot straight- edge, must grind, and PI ₀	12-foot straight- edge and must grind
Asphalt binder	Various	Section 92	Section 92	Section 92	Section 92
Asphalt rubber binder	Various	--	--	Section 92- 1.01D(2) and section 39-1.02D	Section 92-1.01D(2) and section 39-1.02D
Asphalt modifier	Various	--	--	Section 39-1.02D	Section 39-1.02D
CRM	Various	--	--	Section 39-1.02D	Section 39-1.02D

^a The Engineer determines combined aggregate gradations containing RAP under California Test 367.

^b "X" denotes the sieves the Engineer tests for the specified aggregate gradation.

^c The tolerances must comply with the allowable tolerances in section 39-1.02E.

^d The Engineer reports the average of 3 tests from a single split sample.

^e The Engineer determines field compaction for any of the following conditions:

1. 1/2-inch, 3/8-inch, or no. 4 aggregate grading is used and the specified total paved thickness is at least 0.15 foot.
2. 3/4-inch aggregate grading is used and the specified total paved thickness is at least 0.20 foot.

^f To determine field compaction, the Engineer uses:

1. California Test 308, Method A, to determine in-place density of each density core.
2. California Test 309 to determine the maximum theoretical density at the frequency specified in California Test 375, Part 5C.

^g The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

^h The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or

gravel.

ⁱ Report only.

^j Applies to RAP substitution rate greater than 15 percent.

Replace the 5th paragraph of section 39-2.03A with:

01-20-12

The Engineer determines the percent of maximum theoretical density from density cores taken from the final layer measured the full depth of the total paved HMA thickness if any of the following applies:

1. 1/2-inch, 3/8-inch, or no. 4 aggregate grading is used and the specified total paved thickness is at least 0.15 foot and any layer is less than 0.15 foot.
2. 3/4-inch aggregate grading is used and the specified total paved thickness is at least 0.2 foot and any layer is less than 0.20 foot.

Replace the 1st paragraph of section 39-3.02A with:

02-22-13

The Department samples for acceptance testing and tests for the quality characteristics shown in the following table:

HMA Acceptance—Method Construction Process

Quality characteristic	Test method	HMA type			
		A	B	RHMA-G	OGFC
Aggregate gradation ^a	California Test 202	JMF ± tolerance ^b	JMF ± tolerance ^b	JMF ± tolerance ^b	JMF ± tolerance ^b
Sand equivalent (min) ^c	California Test 217	47	42	47	--
Asphalt binder content (%)	California Test 379 or 382	JMF±0.40	JMF±0.40	JMF ± 0.40	JMF ± 0.40
HMA moisture content (% max)	California Test 226 or 370	1.0	1.0	1.0	1.0
Stabilometer value (min) ^c No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	30 37	30 35	-- 23	-- --
Percent of crushed particles Coarse aggregate (% min) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	90 75	25 --	-- 90	90 75
Los Angeles Rattler (% max) Loss at 100 rev. Loss at 500 rev.	California Test 211	12 45	-- 50	12 40	12 40
Air void content (%) ^{c, d}	California Test 367	4 ± 2	4 ± 2	TV ± 2	--
Fine aggregate angularity (% min) ^e	California Test 234	45	45	45	--
Flat and elongated particles (% max by weight @ 5:1)	California Test 235	Report only	Report only	Report only	Report only
Voids filled with asphalt (%) ^f No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	65.0–75.0 65.0–75.0 65.0–75.0 65.0–75.0	65.0–75.0 65.0–75.0 65.0–75.0 65.0–75.0	Report only	--
Voids in mineral aggregate (% min) ^f No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	17.0 15.0 14.0 13.0	17.0 15.0 14.0 13.0	-- -- 18.0–23.0 18.0–23.0	--
Dust proportion ^g No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367	0.6–1.2 0.6–1.2	0.6–1.2 0.6–1.2	Report only	--
Hamburg wheel track (minimum number of passes at	AASHTO T 324			--	--

0.5 inch average rut depth) ^g PG-58 PG-64 PG-70 PG-76 or higher	(Modified)	10,000 15,000 20,000 25,000	10,000 15,000 20,000 25,000		
Hamburg wheel track (inflection point minimum number of passes) ^g PG-58 PG-64 PG-70 PG-76 or higher	AASHTO T 324 (Modified)	10,000 10,000 12,500 15000	10,000 10,000 12,500 15000	--	--
Moisture susceptibility (minimum dry strength, psi) ^g	California Test 371	120	120	--	--
Moisture susceptibility (tensile strength ration, %) ^g	California Test 371	70	70	--	--
Smoothness	Section 39-1.12	12-foot straight-edge and must-grind	12-foot straight-edge and must-grind	12-foot straight-edge and must-grind	12-foot straight-edge and must-grind
Asphalt binder	Various	Section 92	Section 92	Section 92	Section 92
Asphalt rubber binder	Various	--	--	Section 92-1.01D(2) and section 39-1.02D	Section 92-1.01D(2) and section 39-1.02D
Asphalt modifier	Various	--	--	Section 39-1.02D	Section 39-1.02D
CRM	Various	--	--	Section 39-1.02D	Section 39-1.02D

^a The Engineer determines combined aggregate gradations containing RAP under California Test 367.

^b The tolerances must comply with the allowable tolerances in section 39-1.02E.

^c The Engineer reports the average of 3 tests from a single split sample.

^d The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

^e The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

^f Report only.

^g Applies to RAP substitution rate greater than 15 percent.

Replace "280 degrees F" in item 2 in the list in the 6th paragraph of section 39-3.04 with:

285 degrees F

01-20-12

Replace "5,000" in the 5th paragraph of section 39-4.02C with:

10,000

02-22-13

Replace the 7th paragraph of section 39-4.02C with:

02-22-13

Except for RAP substitution rate of greater than 15 percent, the Department does not use results from California Test 371 to determine specification compliance.

Replace the 8th paragraph of section 39-4.02C with:

02-22-13

Comply with the values for the HMA quality characteristics and minimum random sampling and testing for quality control shown in the following table:

Minimum Quality Control—QC/QA Construction Process

Quality characteristic	Test method	Minimum sampling and testing frequency	HMA Type			Location of sampling	Maximum reporting time allowance
			A	B	RHMA-G		
Aggregate gradation ^a	California Test 202	1 per 750 tons	JMF ± tolerance ^b	JMF ± tolerance ^b	JMF ± tolerance ^b	California Test 125	24 hours
Asphalt binder content (%)	California Test 379 or 382		JMF±0.40	JMF±0.40	JMF ±0.40	Loose mix behind paver See California Test 125	
Field compaction (% max. theoretical density) ^{c,d}	QC plan		92–96	92–96	91–96	QC plan	
Aggregate moisture content at continuous mixing plants and RAP moisture content at continuous mixing plants and batch mixing plants ^e	California Test 226 or 370	2 per day during production	--	--	--	Stock-piles or cold feed belts	--
Sand equivalent (min) ^f	California Test 217	1 per 750 tons	47	42	47	California Test 125	24 hours
HMA moisture content (% max)	California Test 226 or 370	1 per 2,500 tons but not less than 1 per paving day	1.0	1.0	1.0	Loose Mix Behind Paver See California Test 125	24 hours
Stabilometer value (min) ^f	California Test 366	1 per 4,000 tons or 2 per 5 business days, whichever is greater	30	30	--		48 hours
No. 4 and 3/8" gradings 1/2" and 3/4" gradings			37	35	23		
Air void content (%) ^{f,g}	California Test 367		4 ± 2	4 ± 2	TV ± 2		

Percent of crushed particles coarse aggregate (% min.): One fractured face Two fractured faces	California Test 205	As designated in QC plan.	90	25	--	California Test 125	48 hours
			75	--	90		
Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve): One fractured face		At least once per project.	70	20	70		
Los Angeles Rattler (% max): Loss at 100 rev. Loss at 500 rev.	California Test 211		12	--	12	California Test 125	
			45	50	40		
Fine aggregate angularity (% min) ^h	California Test 234		45	45	45	California Test 125	
Flat and elongated particle (% max by weight @ 5:1)	California Test 235		Report only	Report only	Report only	California Test 125	
Voids filled with asphalt (%) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367				Report only		
			65.0–75.0	65.0–75.0			
			65.0–75.0	65.0–75.0			
			65.0–75.0	65.0–75.0			
			65.0–75.0	65.0–75.0			

Voids in mineral aggregate (% min.) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367		17.0	17.0	--	
			15.0	15.0	--	
			14.0	14.0	18.0–23.0	
			13.0	13.0	18.0–23.0	
Dust proportion ⁱ No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367		0.6–1.2	0.6–1.2	Report only	
			0.6–1.2	0.6–1.2		
Hamburg wheel track (minimum number of passes at 0.5 inch average rut depth) ⁱⁱ PG-58 PG-64 PG-70 PG-76 or higher	AASHTO T 324 (Modified)	1 per 10,000 tons or 1 per project whichever is greater	10,000	10,000	--	
			15,000	15,000	--	
			20,000	20,000	--	
			25,000	25,000	--	
Hamburg wheel track (inflection point minimum number of passes) ^j PG-58 PG-64 PG-70 PG-76 or higher	AASHTO T 324 (Modified)	1 per 10,000 tons or 1 per project whichever is greater	10,000	10,000	--	
			10,000	10,000	--	
			12,500	12,500	--	
			15000	15000	--	
Moisture susceptibility (minimum dry strength, psi) ^j	California Test 371	1 per 10,000 tons or 1 per project whichever is greater	120	120	--	--
Moisture susceptibility (tensile strength ratio, %) ^j	California Test 371	1 per 10,000 tons or 1 per project whichever is greater	70	70	70	--

Smoothness	Section 39-1.12	--	12-foot straight-edge, must-grind, and PI_0	12-foot straight-edge, must-grind, and PI_0	12-foot straight-edge, must-grind, and PI_0	--	
Asphalt rubber binder viscosity @ 375 °F, centipoises	Section 39-1.02D	--	--	--	1,500–4,000	Section 39-1.02D	24 hours
CRM	Section 39-1.02D	--	--	--	Section 39-1.02D	Section 39-1.02D	48 hours

- ^a Determine combined aggregate gradation containing RAP under California Test 367.
- ^b The tolerances must comply with the allowable tolerances in section 39-1.02E.
- ^c Determines field compaction for any of the following conditions:
 1. 1/2-inch, 3/8-inch, or no. 4 aggregate grading is used and the specified total paved thickness is at least 0.15 foot.
 2. 3/4-inch aggregate grading is used and the specified total paved thickness is at least 0.20 foot.
- ^d To determine field compaction use:
 1. In-place density measurements using the method specified in your QC plan.
 2. California Test 309 to determine the maximum theoretical density at the frequency specified in California Test 375, Part 5C.
- ^e For adjusting the plant controller at the HMA plant.
- ^f Report the average of 3 tests from a single split sample.
- ^g Determine the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.
- ^h The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.
- ⁱ Report only.
- ^j Applies to RAP substitution rate greater than 15 percent.

Replace the 1st sentence in the 1st paragraph of section 39-4.03B(2) with:

01-20-12

For aggregate gradation and asphalt binder content, the minimum ratio of verification testing frequency to quality control testing frequency is 1:5.

Replace the 2nd "and" in the 7th paragraph of section 39-4.03B(2) with:

01-20-12

or

Replace the 1st paragraph of section 39-4.04A with:

02-22-13

The Engineer samples for acceptance testing and tests for the following quality characteristics:

HMA Acceptance—QC/QA Construction Process

Index (i)	Quality characteristic				Weight -ing factor (w)	Test method	HMA type		
							A	B	RHMA-G
		Aggregate gradation ^a				California Test 202	JMF ± Tolerance ^c		
	Sieve	3/4"	1/2"	3/8"					
1	1/2"	X ^b	--	--	0.05				
1	3/8"	--	X	--	0.05				
1	No. 4	--	--	X	0.05				
2	No. 8	X	X	X	0.10				
3	No. 200	X	X	X	0.15				
4	Asphalt binder content (%)				0.30	California Test 379 or 382	JMF±0.40	JMF±0.40	JMF ± 0.40
5	Field compaction (% max. theoretical density) ^{d, e}				0.40	California Test 375	92–96	92–96	91–96
	Sand equivalent (min) ^f					California Test 217	47	42	47
	Stabilometer value (min) ^f No. 4 and 3/8" gradings 1/2" and 3/4" gradings					California Test 366	30 37	30 35	-- 23
	Air void content (%) ^{f, g}					California Test 367	4 ± 2	4 ± 2	TV ± 2
	Percent of crushed particles coarse aggregate (% min) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on No. 8 sieve.) One fractured face					California Test 205	90 75	25 --	-- 90
	HMA moisture content (% max)					California Test 226 or 370	1.0	1.0	1.0
	Los Angeles Rattler (% max) Loss at 100 rev. Loss at 500 rev.					California Test 211	12 45	-- 50	12 40
	Fine aggregate angularity (% min) ^h					California Test 234	45	45	45
	Flat and elongated particle (% max by weight @ 5:1)					California Test 235	Report only	Report only	Report only

	Voids in mineral aggregate (% min) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading		California Test 367	17.0 15.0 14.0 13.0	17.0 15.0 14.0 13.0	-- -- 18.0–23.0 18.0–23.0
	Voids filled with asphalt (%) ⁱ No. 4 grading 3/8" grading 1/2" grading 3/4" grading		California Test 367	65.0–75.0 65.0–75.0 65.0–75.0 65.0–75.0	65.0–75.0 65.0–75.0 65.0–75.0 65.0–75.0	Report only
	Dust proportion ⁱ No. 4 and 3/8" gradings 1/2" and 3/4" gradings		California Test 367	0.6–1.2 0.6–1.2	0.6–1.2 0.6–1.2	Report only
	Hamburg Wheel Tracker (minimum number of passes at 0.5 inch average rut depth) ^j PG-58 PG-64 PG-70 PG-76 or higher		AASHTO T 324 (Modified)	10,000 15,000 20,000 25,000	10,000 15,000 20,000 25,000	--
	Hamburg Wheel Tracker (inflection point minimum number of passes) ^j PG-58 PG-64 PG-70 PG-76 or higher		AASHTO T 324 (Modified)	10,000 15,000 20,000 25,000	10,000 15,000 20,000 25,000	--
	Moisture susceptibility (minimum dry strength, psi) ^j		California Test 371	120	120	--
	Moisture susceptibility (tensile strength ratio %) ^j		California Test 371	70	70	70
	Smoothness		Section 39-1.12	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀	12-foot straight-edge, must grind, and PI ₀
	Asphalt binder		Various	Section 92	Section 92	Section 92
	Asphalt rubber binder		Various	--	--	Section 92-1.01D(2) and section 39-1.02D
	Asphalt modifier		Various	--	--	Section 39-1.02D
	CRM		Various	--	--	Section 39-1.02D

- ^a The Engineer determines combined aggregate gradations containing RAP under California Test 367.
- ^b "X" denotes the sieves the Engineer tests for the specified aggregate gradation.
- ^c The tolerances must comply with the allowable tolerances in section 39-1.02E.
- ^d The Engineer determines field compaction for any of the following conditions:
 1. 1/2-inch, 3/8-inch, or no. 4 aggregate grading is used and the specified total paved thickness is at least 0.15 foot and less than 0.20 foot.
 2. 3/4-inch aggregate grading is used and the specified total paved thickness is at least 0.20 foot.
- ^e To determine field compaction, the Engineer uses:
 1. California Test 308, Method A, to determine in-place density of each density core.
 2. California Test 309 to determine the maximum theoretical density at the frequency specified in California Test 375, Part 5C.
- ^f The Engineer reports the average of 3 tests from a single split sample.
- ^g The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.
- ^h The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.
- ⁱ Report only.
- ^j Applies to RAP substitution rate greater than 15 percent.

Replace the 3rd paragraph of section 39-4.04A with:

01-20-12

The Department determines the percent of maximum theoretical density from density cores taken from the final layer measured the full depth of the total paved HMA thickness if any of the following applies:

1. 1/2-inch, 3/8-inch, or no. 4 aggregate grading is used and the specified total paved thickness is at least 0.15 foot and any layer is less than 0.15 foot.
2. 3/4-inch aggregate grading is used and the specified total paved thickness is at least 0.20 and any layer is less than 0.20 foot.

40 CONCRETE PAVEMENT

01-20-12

Replace section 40-1.01C(4) with:

01-20-12

40-1.01C(4) Authorized Laboratory

Submit for authorization the name of the laboratory you propose to use for testing the drilled core specimens for air content.

Replace the paragraph in section 40-1.01C(8) with:

01-20-12

Submit a plan for protecting concrete pavement during the initial 72 hours after paving when the forecasted minimum ambient temperature is below 40 degrees F.

01-20-12

Delete "determined under California Test 559" in section 40-1.01C(9).

Replace the 2nd and 3rd paragraphs in section 40-1.01D(4) with:

01-20-12

The QC plan must include details of corrective action to be taken if any process is out of control. As a minimum, a process is out of control if any of the following occurs:

1. For fine and coarse aggregate gradation, 2 consecutive running averages of 4 tests are outside the specification limits
2. For individual penetration or air content measurements:
 - 2.1. One point falls outside the suspension limit line
 - 2.2. Two points in a row fall outside the action limit line

Stop production and take corrective action for out of control processes or the Engineer rejects subsequent material.

Replace the 1st paragraph in section 40-1.01D(5) with:

01-20-12

Determine the minimum cementitious materials content. Use your value for minimum cementitious material content for *MC* in equation 1 and equation 2 of section 90-1.02B(3).

Replace the 1st sentence of the 3rd paragraph of section 40-1.01D(9) with:

01-20-12

Use a California profilograph to determine the concrete pavement profile.

Replace the title of the table in section 40-1.01D(13)(a) with:

01-20-12

Concrete Pavement Acceptance Testing

Replace the 2nd and 3rd paragraphs in section 40-1.01D(13)(a) with:

01-20-12

Pavement smoothness may be accepted based on the Department's testing. A single test represents no more than 0.1 mile.

Acceptance of modulus of rupture, thickness, dowel bar and tie bar placement, coefficient of friction, smoothness, and air content, does not constitute final concrete pavement acceptance.

01-20-12

Delete item 4 in the list in the 2nd paragraph in section 40-1.01D(13)(c)(2).

Replace items 1 and 2 in the list in the 2nd paragraph in 40-1.01D(13)(d) with:

01-20-12

1. For tangents and horizontal curves having a centerline radius of curvature 2,000 feet or more, the PI_0 must be at most 2-1/2 inches per 0.1-mile section.
2. For horizontal curves having a centerline radius of curvature from 1,000 to 2,000 feet including concrete pavement within the superelevation transitions of those curves, the PI_0 must be at most 5 inches per 0.1-mile section.

Replace the 1st and 2nd variables in the equation in section 40-1.01D(13)(f) with:

n_c = Number of your quality control tests (minimum of 6 required)

n_v = Number of verification tests (minimum of 2 required)

01-20-12

Replace "Your approved third party independent testing laboratory" in the 4th paragraph of section 40-1.01D(13)(f) with:

The authorized laboratory

01-20-12

Replace item 2 in the list in the 2nd paragraph of section 40-1.01D(13)(g):

2. One test for every 4,000 square yards of concrete pavement with tie bars or remaining fraction of that area. Each tie bar test consists of 2 cores with 1 on each tie-bar-end to expose both ends and allow measurement.

01-20-12

Replace section 40-1.01D(13)(h) with:**40-1.01D(13)(h) Bar Reinforcement**

Bar reinforcement is accepted based on inspection before concrete placement.

01-20-12

Replace the paragraph in section 40-1.02B(2) with:

PCC for concrete pavement must comply with section 90-1 except as otherwise specified.

01-20-12

Replace the paragraphs in section 40-1.02D with:

Bar reinforcement must be deformed bars.

If the project is not shown to be in high desert or any mountain climate region, bar reinforcement must comply with section 52.

If the project is shown to be in high desert or any mountain climate regions, bar reinforcement must be one of the following:

1. Epoxy-coated bar reinforcement under section 52-2.03B except bars must comply with either ASTM A 706/A 706M; ASTM A 996/A 996M; or ASTM A 615/A 615M, Grade 40 or 60. Bars must be handled under ASTM D 3963/D 3963M and section 52-2.02C.
2. Low carbon, chromium steel bar complying with ASTM A 1035/A 1035M

01-20-12

Replace the paragraphs in section 40-1.02E with:

Tie bars must be deformed bars.

01-20-12

If the project is not shown to be in high desert or any mountain climate region, tie bars must be one of the following:

1. Epoxy-coated bar reinforcement. Bars must comply with either section 52-2.02B or 52-2.03B except bars must comply with either ASTM A 706/A 706M; ASTM A 996/A 996M; or ASTM A 615/A 615M, Grade 40 or 60.
2. Stainless-steel bars. Bars must be descaled, pickled, polished, and solid stainless-steel bars under ASTM A 955/A 955M, Grade 60, UNS Designation S31603 or S31803.
3. Low carbon, chromium-steel bars under ASTM A 1035/A 1035M.

If the project is shown to be in high desert or any mountain climate region, tie bars must be one of the following:

1. Epoxy-coated bar reinforcement. Bars must comply with section 52-2.03B except bars must comply with either ASTM A 706/A 706M; ASTM A 996/A 996M; or ASTM A 615/A 615M, Grade 40 or 60.
2. Stainless-steel bars. Bars must be descaled, pickled, polished, and solid stainless-steel bars under ASTM A 955/A 955M, Grade 60, UNS Designation S31603 or S31803.

Fabricate, sample, and handle epoxy-coated tie bars under ASTM D 3963/D 3963M, section 52-2.02C, or section 52-2.03C.

Do not bend tie bars.

Replace the 1st, 2nd, and 3rd paragraphs in section 40-1.02F with:

01-20-12

Dowel bars must be plain bars. Fabricate, sample, and handle epoxy-coated dowel bars under ASTM D 3963/D 3963M and section 52-2.03C except each sample must be 18 inches long.

If the project is not shown to be in high desert or any mountain climate region, dowel bars must be one of the following:

1. Epoxy-coated bars. Bars must comply with ASTM A 615/A 615M, Grade 40 or 60. Epoxy coating must comply with either section 52-2.02B or 52-2.03B.
2. Stainless-steel bars. Bars must be descaled, pickled, polished, and solid stainless-steel bars under ASTM A 955/A 955M, Grade 60, UNS Designation S31603 or S31803.
3. Low carbon, chromium-steel bars under ASTM A 1035/A 1035M.

If the project is shown to be in high desert or any mountain climate region, dowel bars must be one of the following:

1. Epoxy-coated bars. Bars must comply with ASTM A 615/A 615M, Grade 40 or 60. Epoxy coating must comply with section 52-2.03B.
2. Stainless-steel bars. Bars must be descaled, pickled, polished, and solid stainless-steel bars under ASTM A 955/A 955M, Grade 60, UNS Designation S31603 or S31803.

Replace the paragraphs in section 40-1.02G with:

01-20-12

For dowel and tie bar baskets, wire must comply with ASTM A 82/A 82M and be welded under ASTM A 185/A 185M, Section 7.4. The minimum wire-size no. is W10. Use either U-frame or A-frame shaped assemblies.

If the project is not shown to be in high desert or any mountain climate region. Baskets may be epoxy-coated, and the epoxy coating must comply with either section 52-2.02B or 52-2.03B.

If the project is shown to be in high desert or any mountain climate region, wire for dowel bar and tie bar baskets must be one of the following:

1. Epoxy-coated wire complying with section 52-2.03B
2. Stainless-steel wire. Wire must be descaled, pickled, and polished solid stainless-steel. Wire must comply with (1) the chemical requirements in ASTM A 276/A 276M, UNS Designation S31603 or S31803 and (2) the tension requirements in ASTM A 1022/ A 1022M.

Handle epoxy-coated tie bar and dowel bar baskets under ASTM D 3963/D 3963M and either section 52-2.02B or 52-2.03B.

Fasteners must be driven fasteners under ASTM F 1667. Fasteners on lean concrete base or HMA must have a minimum shank diameter of 3/16 inch and a minimum shank length of 2-1/2 inches. For asphalt treated permeable base or cement treated permeable base, the shank diameter must be at least 3/16 inch and the shank length must be at least 5 inches.

Fasteners, clips, and washers must have a minimum 0.2-mil thick zinc coating applied by either electroplating or galvanizing.

Replace the 1st paragraph in section 40-1.02H with:

01-20-12

Chemical adhesive for drilling and bonding dowels and tie bars must be on the Authorized Material List. The Authorized Material List indicates the appropriate chemical adhesive system for the concrete temperature and installation conditions.

Replace section 40-1.02I(2) with:

01-20-12

40-1.02I(2) Silicone Joint Sealant

Silicone joint sealant must be on the Authorized Material List.

Replace the last sentence in section 40-1.02I(4) with:

01-20-12

Show evidence that the seals are compressed from 30 to 50 percent for the joint width at time of installation.

Replace the paragraph in section 40-1.02L with:

01-20-12

Water for core drilling may be obtained from a potable water source, or submit proof that it does not contain:

1. More than 1,000 parts per million of chlorides as Cl
2. More than 1,300 parts per million of sulfates as SO₄
3. Impurities that cause pavement discoloration or surface etching

Replace the paragraph in section 40-1.03B with:

01-20-12

Before placing concrete pavement, develop enough water supply for the work under section 17.

Replace the last paragraph in section 40-1.03D(1) with:

01-20-12

Removal of grinding residue must comply with section 42-1.03B.

Replace the 1st and 2nd paragraphs in section 40-1.03E(6)(c) with:

01-20-12

Install preformed compressions seals in isolation joints if specified in the special provisions.

Install longitudinal seals before transverse seals. Longitudinal seals must be continuous except splicing is allowed at intersections with transverse seals. Transverse seals must be continuous for the entire transverse length of concrete pavement except splices are allowed for widenings and staged construction. With a sharp instrument, cut across the longitudinal seal at the intersection with transverse construction joints. If the longitudinal seal does not relax enough to properly install the transverse seal, trim the longitudinal seal to form a tight seal between the 2 joints.

If splicing is authorized, splicing must comply with the manufacturer's written instructions.

Replace the 12th and 13th paragraphs in section 40-1.03G with:

01-20-12

Construct additional test strips if you:

1. Propose different paving equipment including:
 - 1.1. Paver
 - 1.2. Dowel bar inserter
 - 1.3. Tie bar inserter
 - 1.4. Tining
 - 1.5. Curing equipment
2. Change concrete mix proportions

You may request authorization to eliminate the test strip if you use paving equipment and personnel from a Department project (1) for the same type of pavement and (2) completed within the past 12 months. Submit supporting documents and previous project information with your request.

Replace the 1st paragraph in section 40-1.03I with:

01-20-12

Place tie bars in compliance with the tolerances shown in the following table:

Tie Bar Tolerance

Dimension	Tolerance
Horizontal and vertical skew	10 degrees maximum
Longitudinal translation	± 2 inch maximum
Horizontal offset (embedment)	± 2 inch maximum
Vertical depth	1. Not less than 1/2 inch below the saw cut depth of joints 2. When measured at any point along the bar, not less than 2 inches clear of the pavement's surface and bottom

Replace item 4 in the list in the 2nd paragraph in section 40-1.03I with:

01-20-12

4. Use tie bar baskets. Anchor baskets at least 200 feet in advance of pavement placement activity. If you request a waiver, describe the construction limitations or restricted access preventing the advanced anchoring. After the baskets are anchored and before paving, demonstrate the tie bars do not move from their specified depth and alignment during paving. Use fasteners to anchor tie bar baskets.

Replace "The maximum distance below the depth shown must be 0.05 foot." in the table in section 40-1.03J with:

01-20-12

The maximum distance below the depth shown must be 5/8 inch.

Replace sections 40-1.03L and 40-1.03M with:

01-20-12

40-1.03L Finishing**40-1.03L(1) General**

Reserved

40-1.03L(2) Preliminary Finishing**40-1.03L(2)(a) General**

Preliminary finishing must produce a smooth and true-to-grade finish. After preliminary finishing, mark each day's paving with a stamp. The stamp must be authorized before paving starts. The stamp must be approximately 1 by 2 feet in size. The stamp must form a uniform mark from 1/8 to 1/4 inch deep. Locate the mark 20 ± 5 feet from the transverse construction joint formed at each day's start of paving and 1 ± 0.25 foot from the pavement's outside edge. The stamp mark must show the month, day, and year of placement and the station of the transverse construction joint. Orient the stamp mark so it can be read from the pavement's outside edge.

Do not apply more water to the pavement surface than can evaporate before float finishing and texturing are completed.

40-1.03L(2)(b) Stationary Side Form Finishing

If stationary side form construction is used, give the pavement a preliminary finish by the machine float method or the hand method.

If using the machine float method:

1. Use self-propelled machine floats.
2. Determine the number of machine floats required to perform the work at a rate equal to the pavement delivery rate. If the time from paving to machine float finishing exceeds 30 minutes, stop pavement delivery. When machine floats are in proper position, you may resume pavement delivery and paving.
3. Run machine floats on side forms or adjacent pavement lanes. If running on adjacent pavement, protect the adjacent pavement surface under section 40-1.03P. Floats must be hardwood, steel, or steel-shod wood. Floats must be equipped with devices that adjust the underside to a true flat surface.

If using the hand method, finish pavement smooth and true to grade with manually operated floats or powered finishing machines.

40-1.03L(2)(c) Slip-Form Finishing

If slip-form construction is used, the slip-form paver must give the pavement a preliminary finish. You may supplement the slip-form paver with machine floats.

Before the pavement hardens, correct pavement edge slump in excess of 0.02 foot exclusive of edge rounding.

40-1.03L(3) Final Finishing

After completing preliminary finishing, round the edges of the initial paving widths to a 0.04-foot radius. Round transverse and longitudinal construction joints to a 0.02-foot radius.

Before curing, texture the pavement. Perform initial texturing with a burlap drag or broom device that produces striations parallel to the centerline. Perform final texturing with a steel-tined device that produces grooves parallel with the centerline.

Construct longitudinal grooves with a self-propelled machine designed specifically for grooving and texturing pavement. The machine must have tracks to maintain constant speed, provide traction, and maintain accurate tracking along the pavement surface. The machine must have a single row of rectangular spring steel tines. The tines must be from 3/32 to 1/8 inch wide, on 3/4-inch centers, and must have enough length, thickness, and resilience to form grooves approximately 3/16 inch deep. The machine must have horizontal and vertical controls. The machine must apply constant down pressure on the pavement surface during texturing. The machines must not cause ravels.

Construct grooves over the entire pavement width in a single pass except do not construct grooves 3 inches from the pavement edges and longitudinal joints. Final texture must be uniform and smooth. Use a guide to properly align the grooves. Grooves must be parallel and aligned to the pavement edge across the pavement width. Grooves must be from 1/8 to 3/16 inch deep after the pavement has hardened.

For irregular areas and areas inaccessible to the grooving machine, you may hand-construct grooves under section 40-1.03L(2) using the hand method. Hand-constructed grooves must comply with the specifications for machine-constructed grooves.

Initial and final texturing must produce a coefficient of friction of at least 0.30 when tested under California Test 342. Notify the Engineer when the pavement is scheduled to be opened to traffic to allow at least 25 days for the Department to schedule testing for coefficient of friction. Notify the Engineer when the pavement is ready for testing which is the latter of:

1. Seven days after paving
2. When the pavement has attained a modulus of rupture of 550 psi

The Department tests for coefficient of friction within 7 days of receiving notification that the pavement is ready for testing.

Do not open the pavement to traffic unless the coefficient of friction is at least 0.30.

40-1.03M Reserved

Replace the 4th paragraph of 40-1.03P with:

01-20-12

Construct crossings for traffic convenience. If authorized, you may use RSC for crossings. Do not open crossings until the Department determines that the pavement's modulus of rupture is at least 550 psi under California Test 523 or California Test 524.

Replace the 1st paragraph of section 40-6.01A with:

01-20-12

Section 40-6 includes specifications for applying a high molecular weight methacrylate resin system to pavement surface cracks that do not extend the full slab depth.

DIVISION VI STRUCTURES

46 GROUND ANCHORS AND SOIL NAILS

01-18-13

Replace the 1st paragraph of section 46-1.01C(2) with:

01-18-13

Submit 5 sets of shop drawings to OSD, Documents Unit. Notify the Engineer of the submittal. Include in the notification the date and contents of the submittal. Allow 30 days for the Department's review. After review, submit from 6 to 12 sets, as requested, for authorization and use during construction.

Shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

Replace the 3rd paragraph of section 46-1.01C(2) with:

01-18-13

Ground anchor shop drawings must include:

1. Details and specifications for the anchorage system and ground anchors.
2. Details for the transition between the corrugated plastic sheathing and the anchorage assembly.
3. If shims are used during lock-off, shim thickness and supporting calculations.
4. Calculations for determining the bonded length. Do not rely on any capacity from the grout-to-ground bond within the unbonded length.

Delete the 5th and 6th paragraphs of section 46-1.01C(2).

01-18-13

Replace the 4th paragraph of section 46-1.01D(2)(b) with:

01-18-13

Each jack and its gage must be calibrated as a unit under the specifications for jacks used to tension prestressing steel permanently anchored at 25 percent or more of its specified minimum ultimate tensile strength in section 50-1.01D(3).

Delete the 3rd paragraph of section 46-1.01D(2)(d).

10-19-12

Add to section 46-1.03B:

Dispose of drill cuttings under section 19-2.03B.

04-20-12

Replace the 1st sentence of the 3rd paragraph of section 46-2.01A with:

Ground anchors must comply with section 50.

04-20-12

Add to section 46-2.02B:

Strand tendons, bar tendons, bar couplers, and anchorage assemblies must comply with section 50.

04-20-12

^^

47 EARTH RETAINING SYSTEMS

10-19-12

Replace the 2nd paragraph of section 47-2.01D with:

02-17-12

Coupler test samples must comply with minimum tensile specifications for steel wire in ASTM A 82/A 82M. Total wire slip must be at most 3/16 inch when tested under the specifications for tension testing of round wire test samples in ASTM A 370.

Replace "78-80" in the 1st table in the 2nd paragraph of section 47-2.02C with:

10-19-12

78-100

Replace the value for the sand equivalent requirement in the 2nd table in the 3rd paragraph of section 47-2.02C with:

01-20-12

12 minimum

Replace the 1st paragraph of section 47-2.02E with:

02-17-12

Steel wire must comply with ASTM A 82/A 82M. Welded wire reinforcement must comply with ASTM A 185/A 185M.

Add between the 2nd and 3rd paragraphs of section 47-3.02A:

10-19-12

Reinforcement must comply with section 52.

Delete the 1st paragraph of section 47-3.02B(2)(b).

10-19-12

Add between the 3rd and 4th paragraphs of section 47-5.01:

10-19-12

Reinforcement must comply with section 52.

Add to section 47-6.01A:

10-19-12

The alternative earth retaining system must comply with the specifications for the type of wall being constructed.

^^

Replace the 1st paragraph of section 49-3.01C with:

01-20-12

Except for CIDH concrete piles constructed under slurry, construct CIP concrete piles such that the excavation methods and the concrete placement procedures provide for placing the concrete against undisturbed material in a dry or dewatered hole.

Replace "Reserved" in section 49-3.02A(2) with:

01-20-12

dry hole:

1. Except for CIDH concrete piles specified as end bearing, a drilled hole that:
 - 1.1. Accumulates no more than 12 inches of water in the bottom of the drilled hole during a period of 1 hour without any pumping from the hole during the hour.
 - 1.2. Has no more than 3 inches of water in the bottom of the drilled hole immediately before placing concrete.
2. For CIDH concrete piles specified as end bearing, a drilled hole free of water without the use of pumps.

Replace "Reserved" in section 49-3.02A(3)(a) with:

01-20-12

If plastic spacers are proposed for use, submit the manufacturer's data and a sample of the plastic spacer. Allow 10 days for review.

Replace item 5 in the list in the 1st paragraph of section 49-3.02A(3)(b) with:

10-19-12

5. Methods and equipment for determining:
 - 5.1. Depth of concrete
 - 5.2. Theoretical volume of concrete to be placed, including the effects on volume if casings are withdrawn
 - 5.3. Actual volume of concrete placed

Add to the list in the 1st paragraph of section 49-3.02A(3)(b):

01-18-13

8. Drilling sequence and concrete placement plan.

Replace item 2 in the list in the 1st paragraph of section 49-3.02A(3)(g) with:

01-20-12

2. Be sealed and signed by an engineer who is registered as a civil engineer in the State. This requirement is waived for either of the following conditions:
 - 2.1. The proposed mitigation will be performed under the current Department-published version of *ADSC Standard Mitigation Plan 'A' - Basic Repair* without exception or modification.
 - 2.2. The Engineer determines that the rejected pile does not require mitigation due to structural, geotechnical, or corrosion concerns, and you elect to repair the pile using the current Department-published version of *ADSC Standard Mitigation Plan 'B' - Grouting Repair* without exception or modification.

Replace item 1 in the list in the 1st paragraph of section 49-3.02A(4)(d)(ii) with:

01-20-12

1. Inspection pipes must be schedule 40 PVC pipe complying with ASTM D 1785 with a nominal pipe size of 2 inches. Watertight PVC couplers complying with ASTM D 2466 are allowed to facilitate pipe lengths in excess of those commercially available. Log the location of the inspection pipe couplers with respect to the plane of pile cutoff.

Add to section 49-3.02A(4)(d)(iv):

01-20-12

If the Engineer determines it is not feasible to use one of ADSC's standard mitigation plans to mitigate the pile, schedule a meeting and meet with the Engineer before submitting a nonstandard mitigation plan.

The meeting attendees must include your representatives and the Engineer's representatives involved in the pile mitigation. The purpose of the meeting is to discuss the type of pile mitigation acceptable to the Department.

Provide the meeting facility. The Engineer conducts the meeting.

Replace the 1st paragraph of section 49-3.02B(5) with:

01-20-12

Grout used to backfill casings must comply with section 50-1.02C, except:

1. Grout must consist of cementitious material and water, and may contain an admixture if authorized. Cementitious material must comply with section 90-1.02B, except SCMs are not required. The minimum cementitious material content of the grout must not be less than 845 lb/cu yd of grout.
2. Aggregate must be used to extend the grout as follows:
 - 2.1. Aggregate must consist of at least 70 percent fine aggregate and approximately 30 percent pea gravel, by weight.
 - 2.2. Fine aggregate must comply with section 90-1.02C(3).
 - 2.3. Size of pea gravel must be such that 100 percent passes the 1/2-inch sieve, at least 90 percent passes the 3/8-inch sieve, and not more than 5 percent passes the no. 8 sieve.
3. California Test 541 is not required.
4. Grout is not required to pass through a sieve with a 0.07-inch maximum clear opening before being introduced into the grout pump.

Replace section 49-3.02B(8) with:

01-20-12

49-3.02B(8) Spacers

Spacers must comply with section 52-1.03D, except you may use plastic spacers.

Plastic spacers must:

1. Comply with sections 3.4 and 3.5 of the Concrete Reinforcing Steel Institute's *Manual of Standard Practice*
2. Have at least 25 percent of their gross plane area perforated to compensate for the difference in the coefficient of thermal expansion between the plastic and concrete
3. Be of commercial quality

Add to section 49-3.02C(4):

01-20-12

Unless otherwise shown, the bar reinforcing steel cage must have at least 3 inches of clear cover measured from the outside of the cage to the sides of the hole or casing.

Place spacers at least 5 inches clear from any inspection tubes.

Place plastic spacers around the circumference of the cage and at intervals along the length of the cage, as recommended by the manufacturer.

AA

50 PRESTRESSING CONCRETE

01-18-13

Replace the 3rd paragraph of section 50-1.01D(2) with:

10-19-12

The Department may verify the prestressing force using the Department's load cells.

Replace the 6th paragraph of section 50-1.01D(3) with:

01-18-13

Jacking equipment must be calibrated as follows:

- 1. Each jack and its gage must be calibrated as a unit.
- 2. Each jack used to tension prestressing steel permanently anchored at 25 percent or more of its specified minimum ultimate tensile strength must be calibrated by METS within 1 year of use and after each repair.
You must:
 - 2.1. Schedule the calibration of the jacking equipment with METS
 - 2.2. Verify that the jack and supporting systems are complete, with proper components, and are in good operating condition
 - 2.3. Mechanically calibrate the gages with a dead weight tester or other authorized means before calibration of the jacking equipment by METS
 - 2.4. Provide enough labor, equipment, and material to (1) install and support the jacking and calibration equipment and (2) remove the equipment after the calibration is complete
 - 2.5. Plot the calibration results
- 3. Each jack used to tension prestressing steel permanently anchored at less than 25 percent of its specified minimum ultimate tensile strength must be calibrated by an authorized laboratory within 6 months of use and after each repair.

Replace "diameter" in item 9 in the list in the 1st paragraph of section 50-1.02D with:

04-20-12

cross-sectional area

Add to section 50-1.02:

09-16-11

50-1.02G Sheathing

Sheathing for debonding prestressing strand must:

- 1. Be split or un-split flexible polymer plastic tubing
- 2. Have a minimum wall thickness of 0.025 inch
- 3. Have an inside diameter exceeding the maximum outside diameter of the strand by 0.025 to 0.14 inch

Split sheathing must overlap at least 3/8 inch.

Waterproofing tape used to seal the ends of the sheathing must be flexible adhesive tape.

The sheathing and waterproof tape must not react with the concrete, coating, or steel.

Add to section 50-1.03B(1):

01-20-12

After seating, the maximum tensile stress in the prestressing steel must not exceed 75 percent of the minimum ultimate tensile strength shown.

Add to section 50-1.03B(2):

09-16-11

50-1.03B(2)(e) Debonding Prestressing Strands

Where shown, debond prestressing strands by encasing the strands in plastic sheathing along the entire length shown and sealing the ends of the sheathing with waterproof tape.

Distribute the debonded strands symmetrically about the vertical centerline of the girder. The debonded lengths of pairs of strands must be equal.

Do not terminate debonding at any one cross section of the member for more than 40 percent of the debonded strands or 4 strands, whichever is greater.

Thoroughly seal the ends with waterproof tape to prevent the intrusion of water or cement paste before placing the concrete.

AA

51 CONCRETE STRUCTURES

10-19-12

Replace the paragraphs of section 51-1.01A with:

10-19-12

Section 51-1 includes general specifications for constructing concrete structures.

Earthwork for the following concrete structures must comply with section 19-3:

1. Sound wall footings
2. Sound wall pile caps
3. Culverts
4. Barrier slabs
5. Junction structures
6. Minor structures
7. Pipe culvert headwalls, endwalls, and wingwalls for a pipe with a diameter of 5 feet or greater

Falsework must comply with section 48-2.

Joints must comply with section 51-2.

Elastomeric bearing pads must comply with section 51-3.

Reinforcement for the following concrete structures must comply with section 52:

1. Sound wall footings
2. Sound wall pile caps

3. Barrier slabs
4. Junction structures
5. Minor structures
6. PC concrete members

You may use RSC for a concrete structure only where the specifications allow the use of RSC.

Add to section 51-1.03C(2)(c)(i):

04-20-12

Permanent steel deck forms are only allowed where shown or if specified as an option in the special provisions.

Replace the 3rd paragraph of section 51-1.03C(2)(c)(ii) with:

04-20-12

Compute the physical design properties under AISI's *North American Specification for the Design of Cold-Formed Steel Structural Members*.

Replace the 8th paragraph of section 51-1.03D(1) with:

10-19-12

Except for concrete placed as pipe culvert headwalls and endwalls, slope paving and aprons, and concrete placed under water, consolidate concrete using high-frequency internal vibrators within 15 minutes of placing concrete in the forms. Do not attach vibrators to or hold them against forms or reinforcing steel. Do not displace reinforcement, ducts, or prestressing steel during vibrating.

Add to section 51-1.03E(5):

08-05-11

Drill the holes without damaging the adjacent concrete. If reinforcement is encountered during drilling before the specified depth is attained, notify the Engineer. Unless coring through the reinforcement is authorized, drill a new hole adjacent to the rejected hole to the depth shown.

Replace "Reserved" in section 51-1.03F(5)(b) with:

04-20-12

51-1.03F(5)(b)(i) General

Except for bridge widenings, texture the bridge deck surfaces longitudinally by grinding and grooving or by longitudinal tining.

10-19-12

For bridge widenings, texture the deck surface longitudinally by longitudinal tining.

04-20-12

In freeze-thaw areas, do not texture PCC surfaces of bridge decks.

51-1.03F(5)(b)(ii) Grinding and Grooving

When texturing the deck surface by grinding and grooving, place a 1/4 inch of sacrificial concrete cover on the bridge deck above the finished grade shown. Place items to be embedded in the concrete based on the final profile grade elevations shown. Construct joint seals after completing the grinding and grooving.

Before grinding and grooving, deck surfaces must comply with the smoothness and deck crack treatment requirements.

Grind and groove the deck surface as follows:

1. Grind the surface to within 18 inches of the toe of the barrier under section 42-3. Grinding must not reduce the concrete cover on reinforcing steel to less than 1-3/4 inches.
2. Groove the ground surfaces longitudinally under section 42-2. The grooves must be parallel to the centerline.

51-1.03F(5)(b)(iii) Longitudinal Tining

When texturing the deck surface by longitudinal tining, perform initial texturing with a burlap drag or broom device that produces striations parallel to the centerline. Perform final texturing with spring steel tines that produce grooves parallel with the centerline.

The tines must:

1. Be rectangular in cross section
2. Be from 3/32 to 1/8 inch wide on 3/4-inch centers
3. Have enough length, thickness, and resilience to form grooves approximately 3/16 inch deep

Construct grooves to within 6 inches of the layout line of the concrete barrier toe. Grooves must be from 1/8 to 3/16 inch deep and 3/16 inch wide after concrete has hardened.

For irregular areas and areas inaccessible to the grooving machine, you may hand construct grooves. Hand-constructed grooves must comply with the specifications for machine-constructed grooves.

Tining must not cause tearing of the deck surface or visible separation of coarse aggregate at the surface.

Replace the paragraphs of section 51-1.04 with:

10-19-12

If concrete involved in bridge work is not designated by type and is not otherwise paid for under a separate bid item, the concrete is paid for as structural concrete, bridge.

The payment quantity for structural concrete includes the volume in the concrete occupied by bar reinforcing steel, structural steel, prestressing steel materials, and piling.

The payment quantity for seal course concrete is the actual volume of seal course concrete placed except the payment quantity must not exceed the volume of concrete contained between vertical planes 1 foot outside the neat lines of the seal course shown. The Department does not adjust the unit price for an increase or decrease in the seal course concrete quantity.

Structural concrete for pier columns is measured as follows:

1. Horizontal limits are vertical planes at the neat lines of the pier column shown.
2. Bottom limit is the bottom of the foundation excavation in the completed work.
3. Upper limit is the top of the pier column concrete shown.

The payment quantity for drill and bond dowel is determined from the number and depths of the holes shown.

Replace "SSPC-QP 3" in the 1st paragraph of section 51-2.02A(2) with:

10-19-12

AISC-420-10/SSPC-QP 3

Replace the 2nd and 3rd paragraphs of section 51-2.02B(3)(b) with:

04-20-12

Concrete saws for cutting grooves in the concrete must have diamond blades with a minimum thickness of 3/16 inch. Cut both sides of the groove simultaneously for a minimum 1st pass depth of 2 inches. The completed groove must have:

1. Top width within 1/8 inch of the width shown or ordered
2. Bottom width not varying from the top width by more than 1/16 inch for each 2 inches of depth
3. Uniform width and depth

Cutting grooves in existing decks includes cutting any conflicting reinforcing steel.

Replace the 2nd paragraph of section 51-2.02E(1)(e) with:

08-05-11

Except for components in contact with the tires, the design loading must be the AASHTO LRFD Bridge Design Specifications Design Truck with 100 percent dynamic load allowance. Each component in contact with the tires must support a minimum of 80 percent of the AASHTO LRFD Bridge Design Specifications Design Truck with 100 percent dynamic load allowance. The tire contact area must be 10 inches measured normal to the longitudinal assembly axis by 20 inches wide. The assembly must provide a smooth-riding joint without slapping of components or tire rumble.

Add between the 1st and 2nd paragraphs of section 51-4.01A:

10-19-12

Prestressing concrete members must comply with section 50.

Delete the 2nd paragraph of section 51-4.01A.

04-20-12

Replace the 3rd paragraph of section 51-4.01C(2) with:

04-20-12

For segmental or spliced-girder construction, shop drawings must include the following additional information:

1. Details showing construction joints or closure joints
2. Arrangement of bar reinforcing steel, prestressing tendons, and pressure-grouting pipe
3. Materials and methods for making closures
4. Construction joint keys and surface treatment
5. Other requested information

For segmental girder construction, shop drawings must include concrete form and casting details.

10-19-12

Delete the 1st and 2nd paragraphs of section 51-4.02A.

Replace the 3rd paragraph of section 51-4.02B(2) with:

04-20-12

For segmental or spliced-girder construction, materials for construction joints or closure joints at exterior girders must match the color and texture of the adjoining concrete.

Add to section 51-4.02B(2):

04-20-12

At spliced-girder closure joints:

1. If shear keys are not shown, the vertical surfaces of the girder segment ends must be given a coarse texture as specified for the top surface of PC members.
2. Post-tensioning ducts must extend out of the vertical surface of the girder segment closure end sufficiently to facilitate splicing of the duct.

For spliced girders, pretension strand extending from the closure end of the girder segment to be embedded in the closure joint must be free of mortar, oil, dirt, excessive mill scale and scabby rust, and other coatings that would destroy or reduce the bond.

Add to section 51-4.03B:

04-20-12

The specifications for prestressing force distribution and sequencing of stressing in the post-tensioning activity in 50-1.03B(2)(a) do not apply if post-tensioning of spliced girders before starting deck construction is described. The composite deck-girder structure must be post-tensioned in a subsequent stage.

Temporary spliced-girder supports must comply with the specifications for falsework in section 48-2.

Before post-tensioning of spliced girders, remove the forms at CIP concrete closures and intermediate diaphragms to allow inspection for concrete consolidation.

Add between the 1st and 2nd paragraphs of section 51-7.01A:

10-19-12

Minor structures include:

1. Pipe culvert headwalls and endwalls for a pipe with a diameter less than 5 feet
2. Drainage inlets
3. Other structures described as minor structures

10-19-12

Delete the 4th paragraph of section 51-7.01A.**Replace the 1st and 2nd paragraphs of section 51-7.01B with:**

10-19-12

Concrete must comply with the specifications for minor concrete.

Add to section 51:

10-19-12

51-8-51-15 RESERVED

^^

52 REINFORCEMENT

01-18-13

Add to section 52-1.01A:

07-20-12

Splicing of bar reinforcement must comply with section 52-6.

Replace the 1st and 2nd paragraphs of section 52-1.02B with:

10-19-12

Reinforcing bars must be deformed bars complying with ASTM A 706/A 706M, Grade 60, except you may use:

- 1. Deformed bars complying with ASTM A 615/A 615M, Grade 60, in:
 - 1.1. Junction structures
 - 1.2. Sign and signal foundations
 - 1.3. Minor structures
 - 1.4. Concrete crib members
 - 1.5. Mechanically-stabilized-embankment concrete panels
 - 1.6. Masonry block sound walls
- 2. Deformed or plain bars complying with ASTM A 615/A 615M, Grade 40 or 60, in:
 - 2.1. Slope and channel paving
 - 2.2. Concrete barriers Type 50 and 60
- 3. Plain bars for spiral or hoop reinforcement in structures and concrete piles

Add to the list in the 3rd paragraph of section 52-1.02B:

04-20-12

- 9. Shear reinforcement stirrups in PC girders

Replace the 6th paragraph of section 52-6.01D(4)(a) with:

01-18-13

Before performing service splice or ultimate butt splice testing, perform total slip testing on the service splice or ultimate butt splice test samples under section 52-6.01D(4)(b).

Replace section 52-6.02D with:

10-21-11

52-6.02D Ultimate Butt Splice Requirements

When tested under California Test 670, ultimate butt splice test samples must demonstrate necking as either of the following:

- 1. For "Necking (Option I)," the test sample must rupture in the reinforcing bar outside of the affected zone and show visible necking.
- 2. For "Necking (Option II)," the largest measured strain must be at least:
 - 2.1. Six percent for no. 11 and larger bars

Except for blast cleaning within closed buildings, perform blast cleaning and painting during daylight hours.

Add to section 59-2.03C:

10-19-12

59-2.03C(3) Moisture-Cured Polyurethane Coating

Reserved

Replace item 1 in the list in the 2nd paragraph of section 59-2.03C(1) with:

10-19-12

1. Apply a stripe coat of undercoat paint on all edges, corners, seams, crevices, interior angles, junctions of joining members, weld lines, and similar surface irregularities. The stripe coat must completely hide the surface being covered. If spot blast cleaning portions of the bridge, apply the stripe coat of undercoat paint before each undercoat and follow with the undercoat as soon as practical. If removing all existing paint from the bridge, apply the undercoat first as soon as practical and follow with the stripe coat of undercoat paint for each undercoat.

Add to section 59-2.03C(2)(a):

10-19-12

Coatings for new structural steel must comply with the requirements shown in the following table:

Zinc Coating System for New Structural Steel

Description	Coating	Dry film thickness (mils)
All surfaces:		
Undercoat	Inorganic zinc primer, AASHTO M 300 Type I or II	4–8
Finish coat ^a	Exterior grade latex, 2 coats	2 minimum each coat, 4–8 total
Total thickness, all coats		8–14

^aIf no finish coats are described, a final coat of inorganic zinc primer is required

Coatings for existing structural steel must comply with the requirements shown in the following table:

64 PLASTIC PIPE

10-19-12

Replace the 2nd paragraph of section 64-1.01A with:

10-19-12

Plastic pipe includes all necessary elbows, wyes, tees, other branches, fittings, coupling systems, concrete collars or tees, and reinforcement.

^^

65 CONCRETE PIPE

10-19-12

Replace the 2nd paragraph of section 65-1.01 with:

10-19-12

Concrete pipe includes all necessary elbows, wyes, tees, other branches, concrete collars or tees, and reinforcement.

^^

70 MISCELLANEOUS DRAINAGE FACILITIES

01-18-13

Replace section 70-5.02A(2) with:

01-20-12

70-5.02A(2) Plastic Flared End Sections

Plastic flared end sections must comply with ASTM D 3350.

Replace the 2nd, 3rd, and 4th paragraphs of section 70-7.02B with:

01-18-13

Before shipping, the exterior surfaces of the casing must be cleaned, primed, and coated to comply with ANSI/AWWA C213 or ANSI/AWWA C214.

Wrapping tape for repairing damaged coating and wrapping field joints and fittings must be a pressure-sensitive PVC or polyethylene tape with a minimum thickness of 50 mils, 2 inches wide.

Add to section 70-7.03:

01-18-13

Repair damaged coating on the casing and wrap field joints and fittings with wrapping tape as follows:

- 1. Before wrapping, thoroughly clean and prime the pipe casing, joints, and fittings under the tape manufacturer's instructions.
- 2. Wrap the tape tightly with 1/2 uniform lap, free from wrinkles and voids to provide not less than a 100-mil thickness.
- 3. Wrapping at joints must extend at least 6 inches over adjacent pipe casing coverings. Apply tension such that the tape will conform closely to contours of the joint.

Add to section 83-2.02D(1):

10-21-11

For a concrete barrier transition:

- 1. Remove portions of the existing concrete barrier where shown under section 15-3
- 2. Roughen the contact surface of the existing concrete barrier
- 3. Drill and bond dowels into the existing concrete barrier under section 51-1

Add to section 83-2.02:

10-19-12

83-2.02H–83-2.02M Reserved

^^

84 TRAFFIC STRIPES AND PAVEMENT MARKINGS

01-20-12

Replace the 1st paragraph in section 84-2.04 with:

01-20-12

A double extruded thermoplastic traffic stripe consisting of two 4-inch wide yellow stripes is measured as 2 traffic stripes.

A double sprayable thermoplastic traffic stripe consisting of two 4-inch wide yellow stripes is measured as 1 traffic stripe.

Add to section 84:

01-20-12

84-6 THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS WITH ENHANCED WET NIGHT VISIBILITY

Reserved

84-7–84-10 RESERVED

^^

86 ELECTRICAL SYSTEMS

10-19-12

Replace section 86-2.06 with:

01-20-12

86-2.06 PULL BOXES

86-2.06A General

86-2.06A(1) Cover Marking

Marking must be clearly defined, uniform in depth, and parallel to either the long or short sides of the cover.

Marking letters must be 1 to 3 inches high.

Before galvanizing steel or cast iron cover, apply marking by one of the following methods:

1. Use cast iron strip at least 1/4 inch thick with letters raised a minimum of 1/16 inch. Fasten strip to cover with 1/4-inch flathead stainless steel machine bolts and nuts. Peen bolts after tightening.
2. Use sheet steel strip at least 0.027 inch thick with letters raised a minimum of 1/16 inch. Fasten strip to cover by spot welding, tack welding, or brazing, with 1/4-inch stainless steel rivets or 1/4-inch roundhead stainless steel machine bolts and nuts. Peen bolts after tightening.
3. Bead weld the letters on cover such that the letters are raised a minimum of 3/32 inch.

86-2.06A(2) Installation and Use

Space pull boxes no more than 200 feet apart. You may install additional pull boxes to facilitate the work.

You may use a larger standard size pull box than that shown on the plans or specified.

A pull box in ground or sidewalk area must be installed as follows:

1. Embed bottom of the pull box in crushed rock.
2. Place a layer of roofing paper on the crushed rock.
3. Place grout over the layer of roofing paper. Grout must be 0.50 to 1 inch thick and sloped toward the drain hole.
4. Make a 1-inch drain hole in the center of the pull box through the grout and roofing paper.
5. Place grout between the pull box and the pull box extension, and around conduits.

The top of the pull box must be flush with the surrounding grade or the top of an adjacent curb, except in unpaved areas where the pull box is not immediately adjacent to and protected by a concrete foundation, pole, or other protective construction. Place the pull box 1-1/4 inches above the surrounding grade. Where practical, place a pull box shown in the vicinity of curbs or adjacent to a standard on the side of the foundation facing away from traffic. If a pull box is installed in a sidewalk area, adjust the depth of the pull box so that the top of the pull box is flush with the sidewalk.

Reconstruct the sump of an existing pull box if disturbed by your activities. Remove old grout and replace with new if the sump was grouted.

86-2.06B Non-Traffic-Rated Pull Boxes

Reserved

86-2.06C Traffic Pull Boxes

Traffic pull box and cover must comply with ASTM C857, "Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures," for HS20-44 loading. You must be able to place the load anywhere on the box and cover for 1 minute without causing cracks or permanent deformations.

Frame must be anchored to the box with 1/4 by 2-1/4 inch concrete anchors. Four concrete anchors must be included for No. 3-1/2(T) pull box; one placed in each corner. Six concrete anchors must be included for No. 5(T) and No. 6(T) pull boxes; one placed in each corner and one near the middle of each of the longer sides.

Nuts must be zinc-plated carbon steel, vibration resistant, and have a wedge ramp at the root of the thread.

After installation of traffic pull box, install the steel cover and keep it bolted down when your activities are not in progress at the pull box. When the steel cover is placed for the final time, the cover and Z bar frame must be cleaned of debris and tightened securely.

Steel cover must be countersunk approximately 1/4 inch to accommodate the bolt head. When tightened, the bolt head must not exceed more than 1/8 inch above the top of the cover.

Concrete placed around and under traffic pull boxes must be minor concrete.

Replace "project" in the 3rd paragraph of section 86-2.11A with:

work

10-19-12

Replace "Contract" in item 2 in the list in the 11th paragraph of section 86-2.11A with:

work

10-19-12

^^

88 GEOSYNTHETICS

01-18-13

Replace the row for hydraulic bursting strength in the table in the 2nd paragraph of section 88-1.02B with:

10-19-12

Puncture strength, lb min	ASTM D 6241	310
Trapezoid tearing strength, lb min	ASTM D 4533	56

Replace the 3rd paragraph in section 88-1.02C with:

Geocomposite wall drain must be from 0.25 to 2 inches thick.

10-19-12

Replace the value for permittivity of woven fabric in the table in the 1st paragraph of section 88-1.02E with:

0.05

01-20-12

Replace the value for apparent size opening of nonwoven fabric in the table in the 1st paragraph of section 88-1.02E with:

0.012

01-20-12

Replace the table in the 1st paragraph of section 88-1.02G with:

01-20-12

Sediment Filter Bag

Property	Test	Values	
		Woven	Nonwoven
Grab breaking load, lb, 1-inch grip min, in each direction	ASTM D 4632	200	250
Apparent elongation, percent min, in each direction	ASTM D 4632	10	50
Water flow rate, gal per minute/sq ft min and max average roll value	ASTM D 4491	100-200	75-200
Permittivity, sec ⁻¹ min	ASTM D 4491	1.0	1.0
Apparent opening size, inches max average roll value	ASTM D 4751	0.023	0.012
Ultraviolet resistance, % min retained grab breaking load, 500 hr.	ASTM D 4355	70	70

Replace the table in the 1st paragraph of section 88-1.02H with:

01-20-12

Temporary Cover

Property	Test	Values	
		Woven	Nonwoven
Grab breaking load, lb, 1-inch grip min, in each direction	ASTM D 4632	200	200
Apparent elongation, percent min, in each direction	ASTM D 4632	15	50
Water flow rate, gal per minute/sq ft min and max average roll value	ASTM D 4491	4-10	80-120
Permittivity, sec ⁻¹ min	ASTM D 4491	0.05	1.0
Apparent opening size, inches max average roll value	ASTM D 4751	0.023	0.012
Ultraviolet resistance, % min retained grab breaking load, 500 hr.	ASTM D 4355	70	70

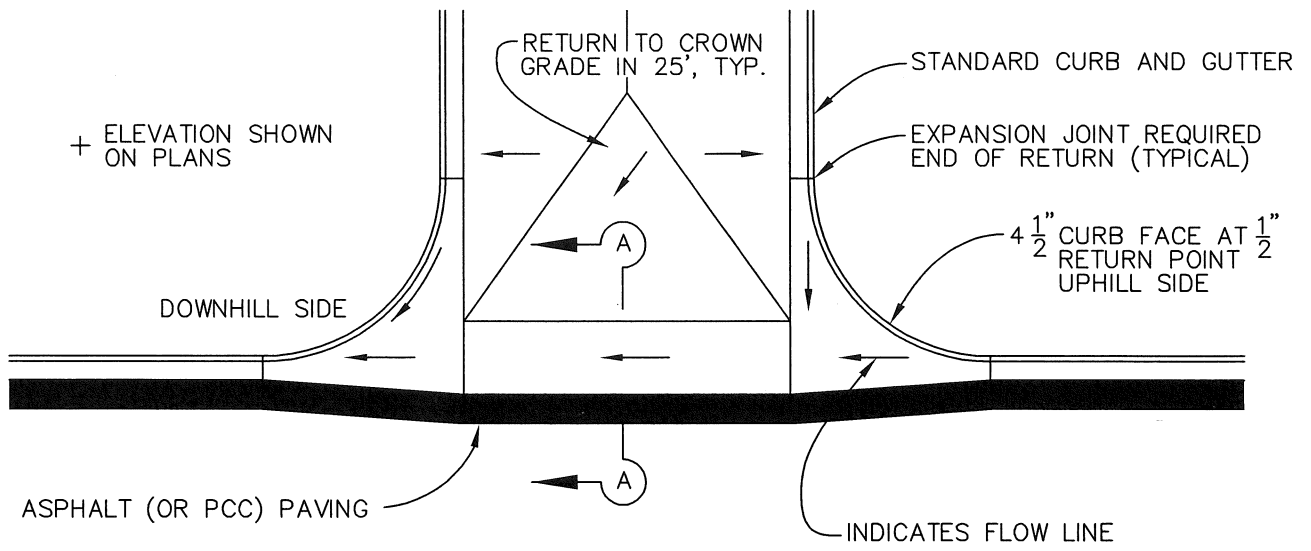
Replace section 88-1.02P with:

01-18-13

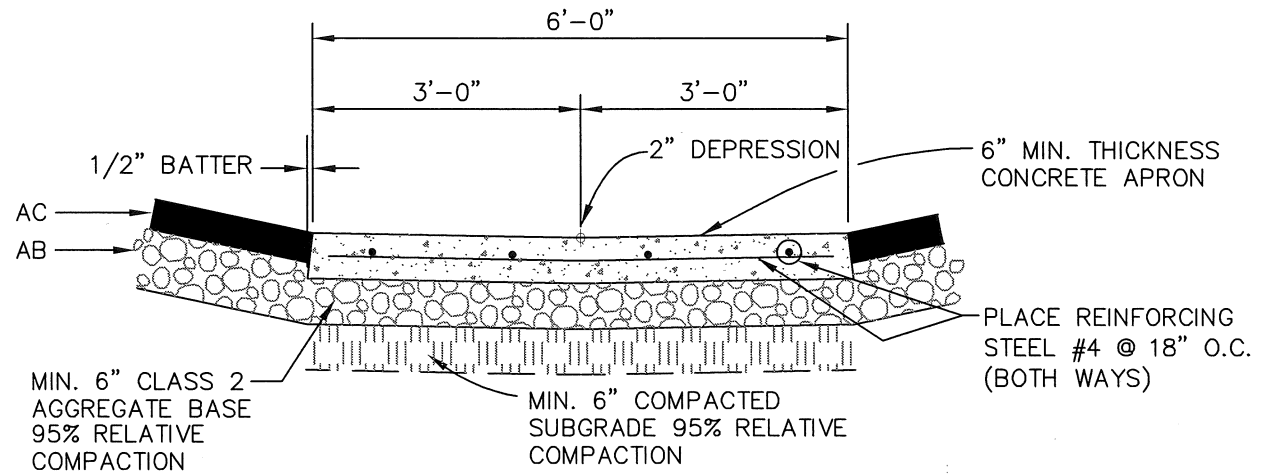
88-1.02P Biaxial Geogrid

Geosynthetics used for biaxial geogrid must be a punched and drawn polypropylene material formed into an integrally formed biaxial grid. When tested under the referenced test methods, properties of biaxial geogrid must have the values shown in the following table:

APPENDIX



PLAN
(N.T.S.)



SECTION A - A
(N.T.S.)

NOTES:

1. SEE DWG. NO. 100 REGARDING CONCRETE REQUIREMENTS.
2. ASPHALT CONCRETE SHALL BE HELD 1/4" HIGH AT EDGE OF CONCRETE.

UNIFORM STANDARDS ALL CITIES AND COUNTY OF MARIN	VALLEY GUTTER				MAY 2008
					DWG. NO.
					110
		REV.	DATE	BY	

Notes for Figure 6H-10 6H-10(CA) —Typical Application 10 Lane Closure on a Two-Lane Road Using Flaggers

Option:

1. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
3. Flashing warning lights and/or flags may be used to call attention to the advance warning signs. A BE PREPARED TO STOP sign may be added to the sign series.

Guidance:

4. *The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.*

Standard:

5. **At night, flagger stations shall be illuminated, except in emergencies.**

Guidance:

6. *When used, the BE PREPARED TO STOP sign should be located ~~between~~ after the Flagger sign and the ONE LANE ROAD sign.*
7. *When a grade crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the grade crossing, the TTC zone should be extended so that the transition area precedes the grade crossing.*
8. *When a grade crossing equipped with active warning devices exists within the activity area, provisions should be made for keeping flaggers informed as to the activation status of these warning devices.*
9. *When a grade crossing exists within the activity area, drivers operating on the left-hand side of the normal center line should be provided with comparable warning devices as for drivers operating on the right-hand side of the normal center line.*
10. *Early coordination with the railroad company or light rail transit agency should occur before work starts.*

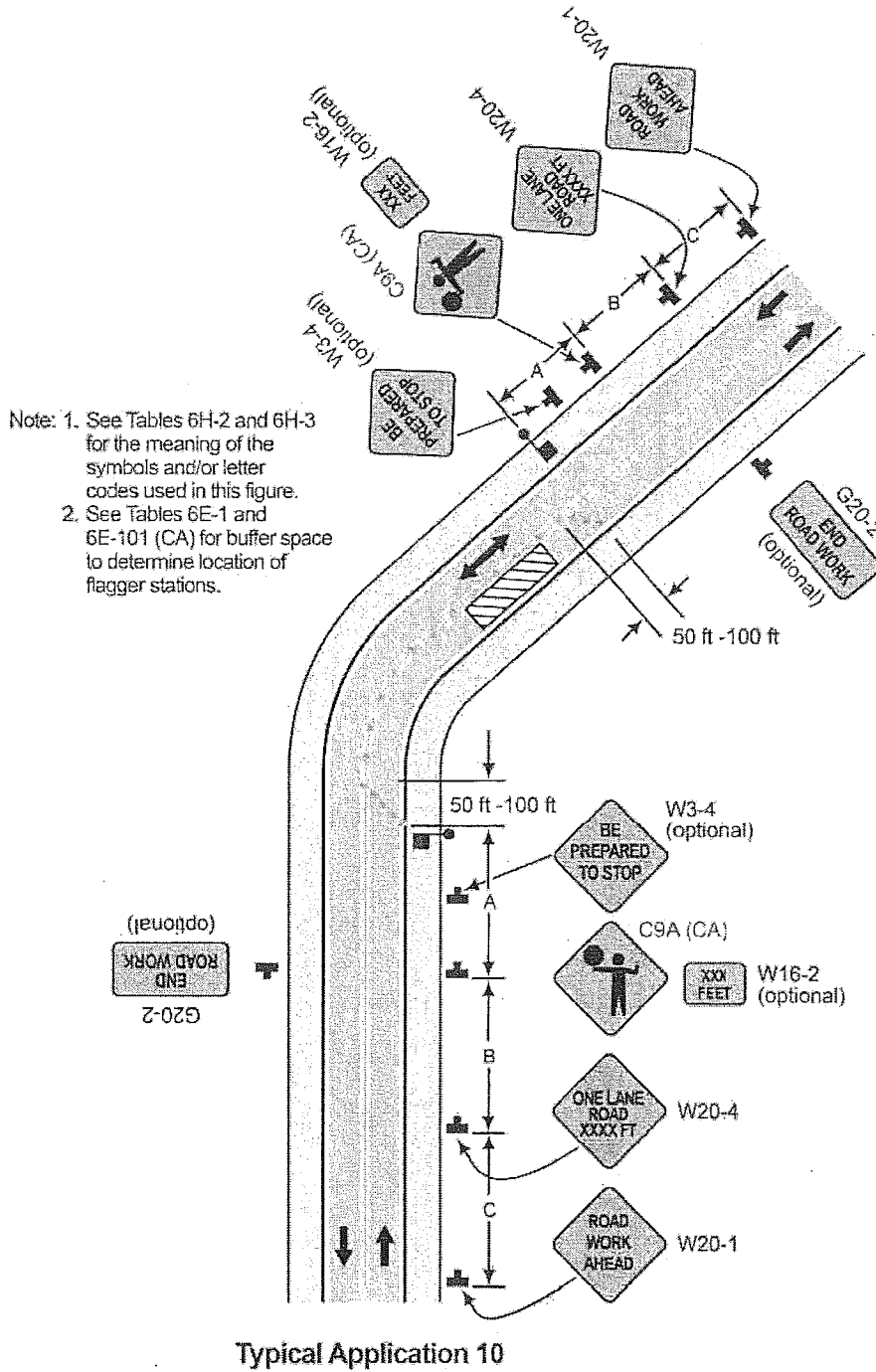
Option:

11. A flagger or a uniformed law enforcement officer may be used at the grade crossing to minimize the probability that vehicles are stopped within 15 feet of the grade crossing, measured from both sides of the outside rails.

Support:

12. For State highways, see Department of Transportation's Standard Plan T13. See Section 1A.11 for information regarding this publication.

Figure 6H-10 (CA). Lane Closure on Two-Lane Road Using Flaggers (TA-10)



**Notes for Figure 6H-11—Typical Application 11
Lane Closure on a Two-Lane Road with Low Traffic Volumes**

Option:

1. This TTC zone application may be used as an alternate to the TTC application shown in Figure 6H-10 6H-10(CA) (using flaggers) when the following conditions exist:
 - a. Vehicular traffic volume is such that sufficient gaps exist for vehicular traffic that must yield.
 - b. Road users from both directions are able to see approaching vehicular traffic through and beyond the worksite and have sufficient visibility of approaching vehicles.
2. The Type B flashing warning lights may be placed on the ROAD WORK AHEAD and the ONE LANE ROAD AHEAD signs whenever a night lane closure is necessary.

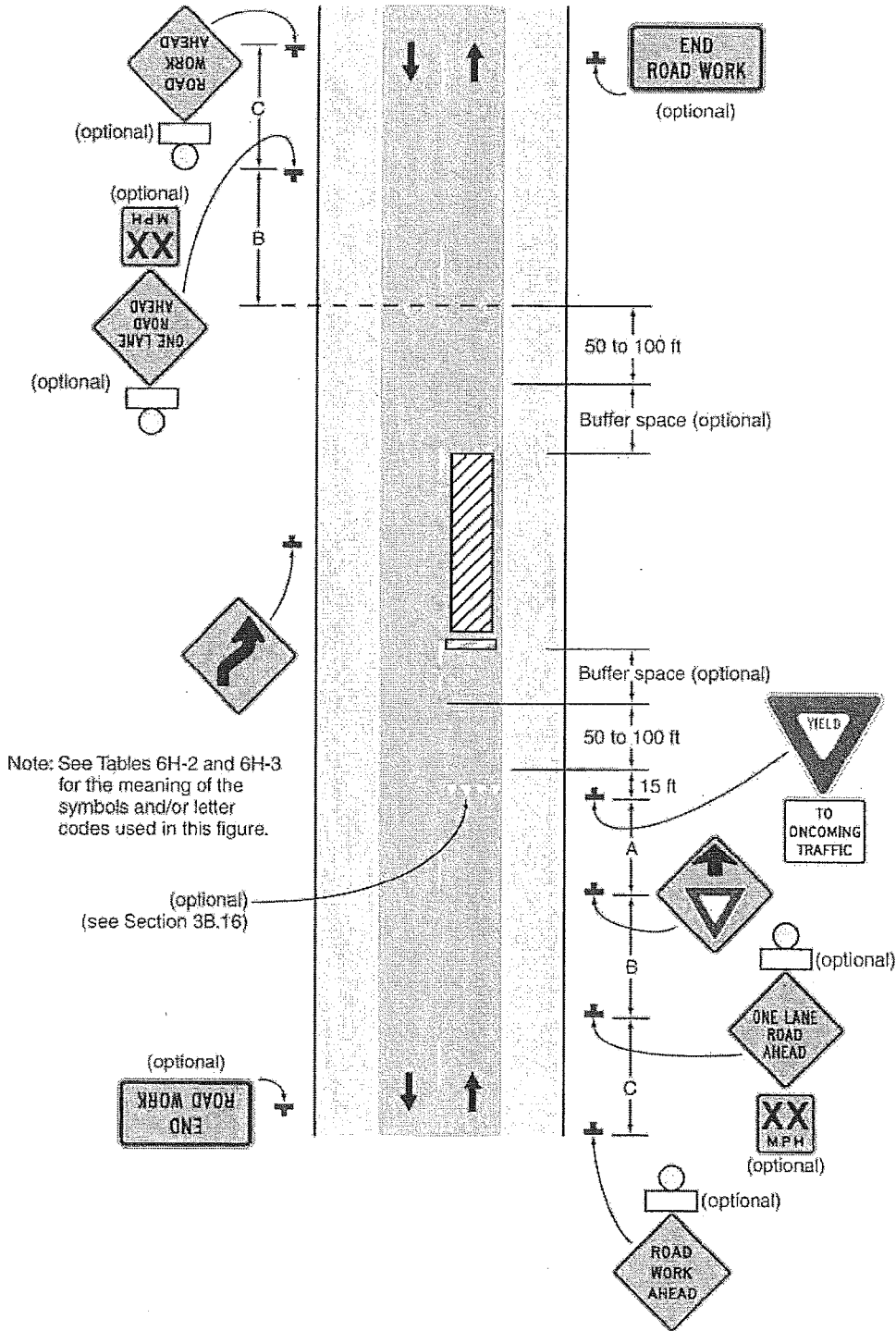
Standard:

3. The approach to the side that is not closed shall be visible (for a distance equal to the safe passing sight distance for that approach) to the driver who must yield or stop.

Support:

See Section 3B.02 and 6C.15.

Figure 6H-11. Lane Closure on a Two-Lane Road with Low Traffic Volumes (TA-11)



Typical Application 11

Notes for Figure 6H-12 —Typical Application 12 Lane Closure on a Two-Lane Road Using Traffic Control Signals

Standard:

1. Temporary traffic control signals shall be installed and operated in accordance with the provisions of Part 4. Temporary traffic control signals shall meet the physical display and operational requirements of conventional traffic control signals.
2. Temporary traffic control signal timing shall be established by authorized officials. Durations of red clearance intervals shall be adequate to clear the one-lane section of conflicting vehicles.
3. When the temporary traffic control signal is changed to the flashing mode, either manually or automatically, red signal indications shall be flashed to both approaches.
4. Stop lines shall be installed with temporary traffic control signals for intermediate and long-term closures. Existing conflicting pavement markings and raised pavement marker reflectors between the activity area and the stop line shall be removed. After the temporary traffic control signal is removed, the stop lines and other temporary pavement markings shall be removed and the permanent pavement markings restored.
5. Safeguards shall be incorporated to avoid the possibility of conflicting signal indications at each end of the TTC zone.

Guidance:

6. *Where no-passing lines are not already in place, they should be added.*
7. *Adjustments in the location of the advance warning signs should be made as needed to accommodate the horizontal or vertical alignment of the roadway, recognizing that the distances shown for sign spacings are minimums. Adjustments in the height of the signal heads should be made as needed to conform to the vertical alignment.*

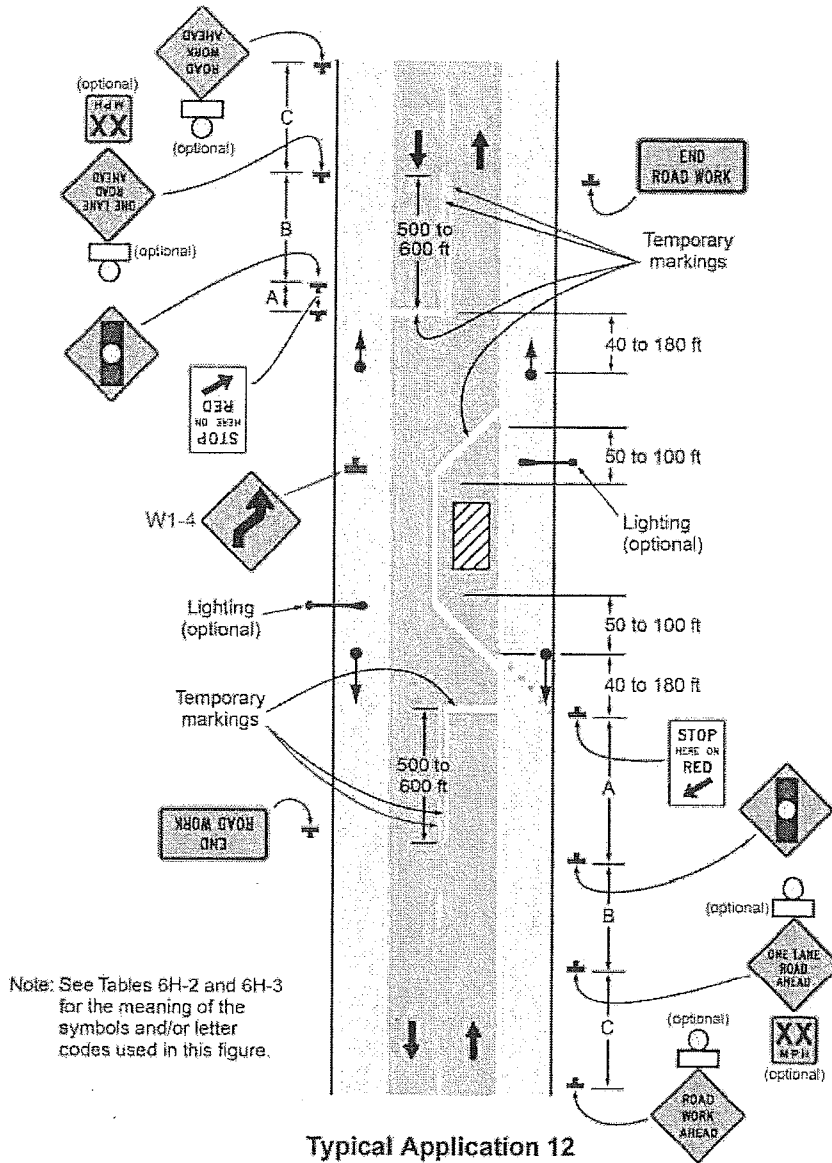
Option:

8. Flashing warning lights shown on the ROAD WORK AHEAD and the ONE LANE ROAD AHEAD signs may be used.
9. Removable pavement markings may be used.

Support:

10. Temporary traffic control signals are preferable to flaggers for long-term projects and other activities that would require flagging at night.
11. The maximum length of activity area for one-way operation under temporary traffic control signal control is determined by the capacity required to handle the peak demand.

Figure 6H-12. Lane Closure on a Two-Lane Road Using Traffic Control Signals (TA-12)



Notes for Figure 6H-13 —Typical Application 13 Temporary Road Closure

Support:

1. Conditions represented are a planned closure not exceeding 20 minutes during the daytime.

Standard:

2. **A flagger or uniformed law enforcement officer shall be used for this application. The flagger, if used for this application, shall follow the procedures provided in Sections 6E.07 and 6E.08.**

Guidance:

3. *The uniformed law enforcement officer, if used for this application, should follow the procedures provided in Sections 6E.07 and 6E.08.*

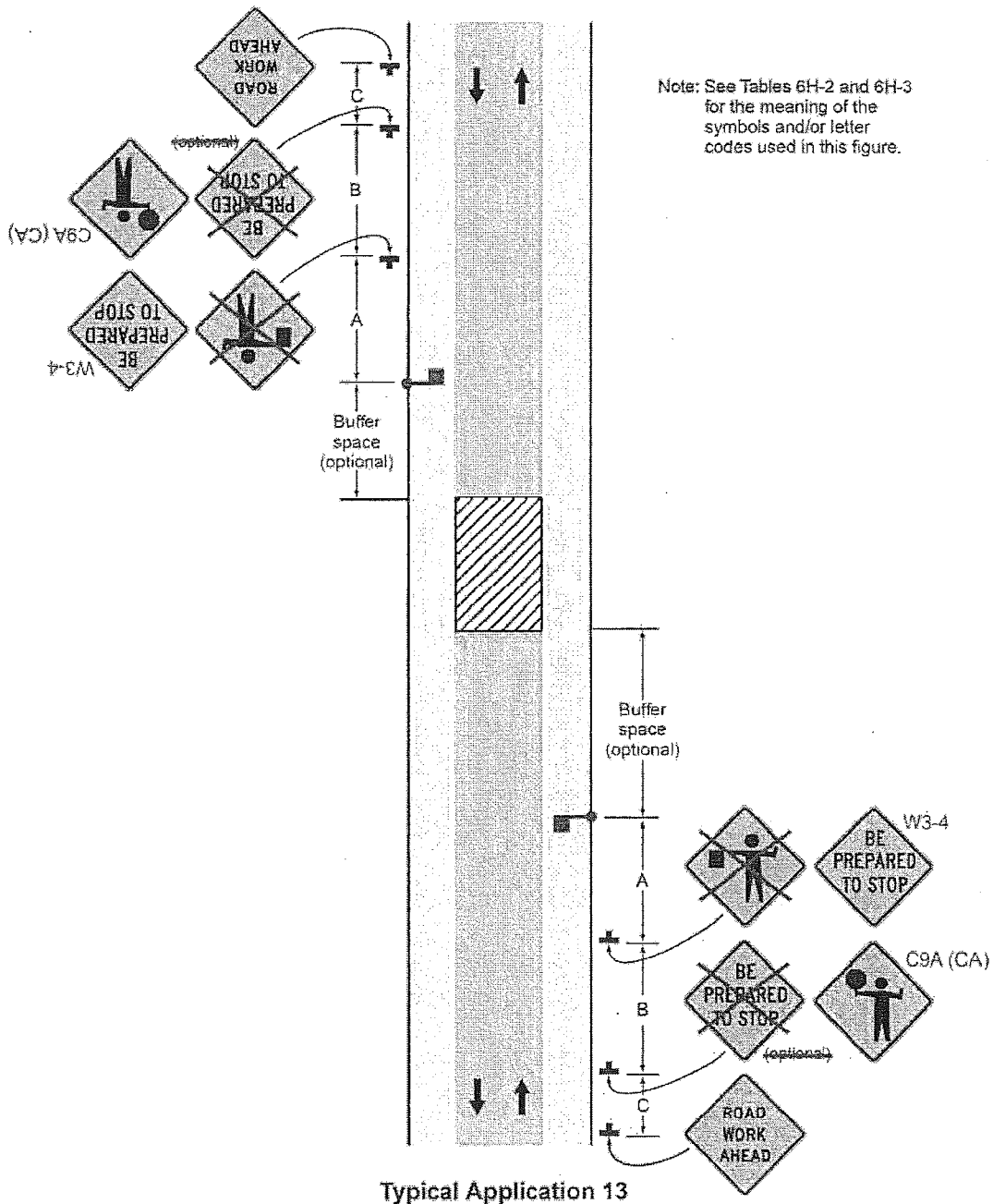
Option:

4. A BE PREPARED TO STOP sign may be added to the sign series.

Guidance:

5. *When used, the BE PREPARED TO STOP sign should be located before after the Flagger symbol sign.*

Figure 6H-13. Temporary Road Closure (TA-13)



Typical Application 13

48"



City of Sausalito

Capital Improvement Project

Supported with

Marin County Measure A Funds

Your Measure A Sales Tax Dollars at Work

36"

