

CITY OF RIDGECREST

**WEST RIDGECREST BOULEVARD RECONSTRUCTION PROJECT  
CHINA LAKE BOULEVARD (STATE ROUTE 178) TO NORTH  
MAHAN STREET**



**SPECIFICATION AND CONTRACT DOCUMENTS**

**January 2012**

CITY OF RIDGECREST  
100 West California Avenue  
Ridgecrest, California 93555

**CITY COUNCIL:**

Mayor	Steven Morgan
Mayor Pro tempore	Ron Carter
Vice Mayor	Thomas Wiknich
Councilmember	Jerry Taylor
Councilmember	Chip Holloway

**STAFF:**

City Manager	Harvey M. Rose
Public Works Director	Dennis Speer
City Engineer	Loren Culp

## TABLE OF CONTENTS

<i>Document/ Paragraph</i>	<i>Page</i>
--------------------------------	-------------

### ***Section I. Contract Documents***

Notice Inviting Sealed Bids.....	I-1
Information For Bidders.....	I-4
Bidder's Reference.....	I-9
Bidder's Financial Reference.....	I-11
Designation of Subcontractors.....	I-12
Non-Conclusion Affidavit.....	I-14
Bid Form.....	I-16
Schedule of Bid Items.....	I-18
Bid Bond.....	I-23
Workers' Compensation Certificate.....	I-25
Agreement.....	I-26
Performance Bond.....	I-54
Payment Bond.....	I-56

### ***Section II. General Conditions (GC)***

#### ***Contract Requirements***

GC-1	Definition of Terms.....	II-58
GC-2	Priority of Special Conditions.....	II-60
GC-3	Notice and Service Thereof.....	II-60
GC-4	Assignment of Contract.....	II-61
GC-5	Subcontractors.....	II-61
GC-6	Mutual Responsibility of Contractors.....	II-65
GC-7	Personal Interest of City Officials.....	II-66
GC-8	Termination for Breach, Etc.....	II-66
GC-9	Permits and Compliance with Law.....	II-67

#### ***Construction Requirements***

GC-10	Existing Utilities.....	II-69
GC-11	Rights-of-Way.....	II-69
GC-12	Construction Schedule and Periodic Estimates.....	II-69
GC-13	Reports.....	II-70
GC-14	Prosecution of Work.....	II-70
GC-15	Starting of Work.....	II-70
GC-16	Contractor's Responsibility for Work.....	II-71

GC-17	Public Convenience and Safety .....	II-71
GC-18	Protection of Utilities.....	II-72
GC-19	Cooperation of Contractor.....	II-74
GC-20	Plans to be Furnished by Contractor .....	II-74
GC-21	Approval of Contractor's Plans and Liability.....	II-74
GC-22	Use of Premises.....	II-75
GC-23	Equipment.....	II-75
GC-24	Obstructions.....	II-75
GC-25	Changed Conditions .....	II-75
GC-26	Existing Landscaping.....	II-75
GC-27	Removal of Debris, Cleaning, Etc. ....	II-76
GC-28	Liquidated Damages and Extension of Time.....	II-76
GC-29	Compensation to the City for Extension of Time .....	II-76
GC-30	General Guaranty .....	II-77

### ***Bonds and Insurance***

GC-31	Contract Security.....	II-78
GC-32	Bondsmen's Waiver of Right to Notification.....	II-78
GC-33	Insurance .....	II-78
GC-34	Public Liability and Property Damage Insurance.....	II-79

### ***Materials and Test***

GC-35	Materials or Equal Clause.....	II-83
GC-36	Warranty of Title.....	II-83
GC-37	Patents .....	II-83
GC-38	Protection of Materials and Work.....	II-84
GC-39	Defective Work and Materials.....	II-85
GC-40	Tests.....	II-85
GC-41	Samples and Tests .....	II-85

### ***Wages, Employment, and Labor***

GC-42	Wage Scales.....	II-95
GC-43	Forfeiture of Wage Underpayments .....	II-95
GC-44	Apprentices.....	II-96
GC-45	Qualification for Employment .....	II-97
GC-46	Nondiscrimination .....	II-97
GC-47	Collective Bargaining .....	II-97
GC-48	Accident Prevention .....	II-98
GC-49	Sanitary Facilities.....	II-98

### ***Engineering Plans and Specifications***

GC-50	Authority of the Engineer .....	II-99
GC-51	Inspection.....	II-99
GC-52	Interpretation of Specifications .....	II-100
GC-53	Conflict, Omission, Etc., in Specifications and Plans.....	II-100
GC-54	Checking of Plans.....	II-100
GC-55	Deviations from Specifications and Plans.....	II-100
GC-56	Specifications, Plans, Etc. are Parts of Contract .....	II-101
GC-57	Datum for Elevations.....	II-101
GC-58	Stakes and Marks .....	II-101
GC-59	Monuments.....	II-101

***Quantities and Payments***

GC-60	Estimate of Quantities.....	II-102
GC-61	Payments Based on Actual Quantities Installed.....	II-102
GC-62	Measurement and Basis for Payment .....	II-102
GC-63	Payments to Contractor .....	II-102
GC-64	City's Right to Withhold Amounts.....	II-104
GC-65	Payment of Extra, Additional, or Omitted Work.....	II-105
GC-66	Costs to the Contractor.....	II-106
GC-67	Withheld Contract Funds.....	II-106

***Section III. Special Conditions (GC)***

SC-1	Requirements .....	III-111
SC-2	Plans.....	III-111
SC-3	Bidding and Contract Schedule.....	III-111
SC-4	Commencement, Prosecution, and Completion of Work .....	III-111
SC-5	Failure to Complete Work Within Specified Time .....	III-111
SC-6	Contract Payments.....	III-112
SC-7	Bid Guarantee.....	III-112
SC-8	Bidding Procedures and Responsibility .....	III-112
SC-9	Guarantee.....	III-112
SC-10	Safety.....	III-113
SC-11	Inspection, Licenses, and Permits.....	III-113
SC-12	Damage to Facilities Prior to Acceptance .....	III-113
SC-13	Precedence .....	III-114
SC-14	Investigation of Site.....	III-114
SC-15	Lines, Grades, and Locations.....	III-114
SC-16	Water .....	III-114
SC-17	Private Property Improvements .....	III-114
SC-18	Maintaining Traffic.....	III-115
SC-19	Compaction .....	III-115

## Section IV. Construction Specifications (CS)

### General

1-01	Order Of Work .....	117
1-02	Progress Schedule (Critical Path Method) .....	119
1-03	Construction Site Management .....	127
1-04	Water Pollution Control .....	144
1-05	Lead Compliance Plan .....	163
1-06	Mobilization.....	164
1-07	Construction Area Signs.....	164
1-08	Construction Area Traffic Control Devices .....	166
1-09	Maintaining Traffic.....	168
1-10	Traffic Control System.....	170
1-11	Temporary Barricades (Type III).....	171
1-12	Type III Barricades.....	171
1-13	Temporary Pavement Delineation.....	172
1-14	Portable Changeable Message Signs.....	176
1-15	Channelizer (Surface Mounted) .....	178
1-16	Existing Highway Facilities.....	178
	Remove Fence.....	178
	Remove Traffic Stripe and Pavement Marking.....	183
	Remove Pavement Marker .....	183
	Remove Roadside Sign.....	183
	Remove Concrete .....	183
	Relocate Fire Hydrant.....	184
	Relocate Mailbox.....	184
	Relocate Sign .....	186
	Relocate Water Service and Meter .....	186
	Relocate Water Valve.....	186
1-17	Adjust Sewer Cleanout to Grade.....	187
1-18	Adjust Water Meter Box to Grade .....	187
1-19	Adjust Fire Hydrant to Grade.....	188
1-20	Adjust Manhole to Grade.....	188
1-21	Adjust Water Valve Cover to Grade.....	189
1-22	Reconstruct Manhole.....	189
1-24	Clearing and Grubbing .....	192
1-25	Roadway Excavation .....	192
1-26	Full-Depth Rehabilitation (FDR) and Grading.....	193
1-27	Aggregate Base (Class 2) .....	199
1-28	Hot Mix Asphalt (Type A) .....	199
1-29	Hot Mix Asphalt (Misc Areas) .....	202
1-30	Minor Concrete (Color Concrete).....	203

1-31	Roadside Signs – One Post .....	204
1-32	Furnish and Install Sign.....	204
1-33	Paint Concrete Surface (Red Curb) .....	210
1-34	18” Reinforced Concrete Pipe.....	210
1-35	18” Precast Concrete Flared End Section .....	212
1-36	Type GO Drainage Inlet .....	213
1-38	Minor Concrete.....	213
1-39	Install Water Meter .....	215
1-40	Pedestrian Railing.....	215
1-41	Miscellaneous Iron and Steel.....	216
1-42	Barbed Wire Fence .....	217
1-43	Chain Link Fence.....	217
1-44	Survey Monument .....	217
1-45	Thermoplastic Traffic Stripe and Pavement Marking .....	218
1-47	Pavement Markers and Delineators.....	220
1-48	Concrete Block Paver .....	222
1-49	Decorative Bollard.....	223

### ***Highway Planting and Irrigation Systems***

2-01	General.....	IV-224
2-02	Highway Planting .....	IV-228
2-03	Gravel Mulch.....	IV-Error! Bookmark not defined.
2-04	Irrigation Systems.....	IV-233

### ***Signals and Lighting***

3-01	Description.....	IV-244
3-02	Cost Break-Down .....	IV-244
3-03	Foundations .....	IV-244
3-04	Standards, Steel Pedestals, and Posts.....	IV-245
3-05	Conduit .....	IV-245
3-06	Pull Boxes.....	IV-246
3-07	Conductors, Cables, and Wiring .....	IV-247
3-08	Service.....	IV-247
3-09	Numbering Electrical Equipment.....	IV-247
3-10	Model 170E Controller Assembly .....	IV-247
3-11	Light Emitting Diode Signal Module.....	IV-249
3-12	Battery Backup System.....	IV-255
3-13	Light Emitting Diode Pedestrian Signal Face Modules .....	IV-257
3-14	Video Detection System .....	IV-261
3-15	Pedestrian Push Buttons5.....	IV-263
3-16	Luminaires .....	IV-263
3-17	Decorative Electroliers.....	IV-263
3-18	Photoelectric Controls.....	IV-263

3-19	Mast-Arm Mounted Street Name Signs.....	IV-264
3-20	Payment.....	IV-264

***Section V. Federal Provisions***

***SECTION I: CONTRACT DOCUMENTS***

CITY OF RIDGECREST  
STATE OF CALIFORNIA

***Notice Inviting Sealed Bids***

***NOTICE IS HEREBY GIVEN*** that the City of Ridgecrest invites and will receive sealed bids at the office of the City Clerk of the City of Ridgecrest, Owner of the work, located at 100 West California Avenue, Ridgecrest, California 93555, until the hour of **4:00 p.m. on \_\_\_\_\_, 2011.**

***DESCRIPTION OF WORK:*** The work involves the reconstruction of W. Ridgecrest Boulevard (between N. Mahan Street to China Lake Boulevard). The project includes roadway widening, pavement reconstruction, traffic signal installation, street lighting, corridor landscaping, and miscellaneous concrete work.

***SITE OF WORK:*** The site of the work is located along W. Ridgecrest Boulevard (between N. Mahan Street to China Lake Boulevard), in Ridgecrest, California.

***COMPLETION OF WORK:*** All work must be completed within two hundred and ten (210) calendar days after the commencement date stated in the Notice to Proceed.

***LIQUIDATED DAMAGES:*** Liquidated damages of **five thousand dollars (\$5000.00)** per calendar day, as specified in the Special Conditions, shall be paid by the contractor to the City of Ridgecrest for each calendar day in excess of the time limit stated above that the project is not complete.

**MANDATORY PREBID MEETING:** The Department will conduct a mandatory prebid meeting for this contract. The purpose of the meeting is to provide small businesses the opportunity to meet and interact with prospective bidders and increase participation in the performance of contracts. Prospective bidders must attend the mandatory prebid meeting. The bidder's representative must be a company officer, project superintendent, or project estimator. For a joint venture, one of the parties must attend the mandatory prebid meeting. The Department will not accept bids from bidders who do not attend the mandatory prebid meeting. A sign-up sheet will be used to identify all prospective bidders including name and title of the company representative attending the mandatory prebid meeting. The successful bidder will be required to report small businesses hired to work on this contract as a result of the mandatory prebid meeting.

***OPENING OF BIDS:*** The bids will be publicly opened and announced at **4:00 p.m. on \_\_\_\_\_, 2010** at the above mentioned office of the City Clerk.

***OBTAINING CONTRACT DOCUMENTS:*** The contract documents are entitled "West Ridgecrest Boulevard Reconstruction Project". All contract documents, plans, and

specifications may be obtained at the office of the City Clerk, Ridgecrest City Hall, 100 West California Avenue, Ridgecrest, California 93555. Plans and specifications will be available on \_\_\_\_\_, 2010 at a cost of one hundred dollars (\$100.00) per set.

**BID SECURITY:** Each bid shall be accompanied by a certified or cashier's check or bid bond in the amount of ten percent (10%) of the total bid price payable to the City of Ridgecrest as a guarantee that the bidder, if its bid is accepted, will promptly execute the contract.

**BIDS TO REMAIN OPEN:** The bidder shall guarantee the total bid price for a period of thirty (30) calendar days from the date of bid opening.

**CALIFORNIA WAGE REQUIREMENTS:** In accordance with the provisions of California Labor Code Sections 1770, 1773, 1773.1, 1773.6 and 1773.7, as amended, the Director of the Department of Industrial Relations has determined the general prevailing rate of per diem wages in accordance with the standards set forth in Section 1773 for the locality in which the work is to be performed. A copy of said wage rates is on file at the office of the City Clerk of the City of Ridgecrest. It shall be mandatory upon the contractor to whom the contract is awarded and upon any subcontractor under him to pay not less than said specific rates to all workers employed by them in the execution of the contract.

**FEDERAL-AID FUNDS:** Attention is directed to Section V, "Federal Provisions," of these special provisions. This project is a State and Federally funded project. Contractor shall meet State and Federal requirements for the project.

**RETAINAGE FROM PAYMENT:** The contractor may elect to receive one hundred percent (100%) of payment due under the contract from time to time, without retention of any portion of the payment by the City of Ridgecrest, by depositing securities of equivalent value with the City in accordance with the provisions of Section 4590 of the Government Code. Such securities, if deposited by the contractor, shall be valued by the owner, whose decisions on valuation of the securities shall be final. Securities eligible for investment under this provision shall be limited to those listed in Section 16430 of the Government Code or Certificates of Deposit from Banks or Savings & Loan. In order to substitute securities the contractor shall enter into an agreement with the City of Ridgecrest entitled "Agreement Concerning Investment of Funds" as attached to the contract.

**ADDRESS AND MARKING OF BID:** The envelope enclosing the bid shall be sealed and addressed to the City Clerk, City of Ridgecrest, and delivered or mailed to Ridgecrest City Hall, 100 West California Avenue, Ridgecrest, California 93555. The envelope shall be plainly marked in the upper left-hand corner with the name and address of the bidder and shall bear the words "BID FOR West Ridgecrest Boulevard Project Reconstruction Project – China Lake Boulevard (State Route 178) to North Mahan Street, bid opening at 4:00 p.m. on \_\_\_\_\_, 2010". The certified or cashier's check, money order, or bidder's bond shall be enclosed in the same envelope with the bid.

**CONTRACTOR LICENSE CLASSIFICATION:** The project will require the prime contractor to be in possession of a valid, appropriate State of California Contractor's License. No bid will be accepted from a contractor who is not duly licensed in accordance with the provisions of Chapter 9, Division III of the Business and Professions Code. Bids will only be accepted from contractors holding a General Engineering Class A license.

**PROJECT ADMINISTRATION:** All questions relative to this project prior to the opening of bids shall be directed to the Director of Public Works.

**OWNER'S RIGHTS RESERVED:** The City of Ridgecrest reserves the right to reject any and all bids, to waive any informality in a bid and to make awards to the lowest responsive, responsible bidder as it may best serve the interest of the owner.

**DISADVANTAGED BUSINESS ENTERPRISES (DBE):** 11 percent

**UNDERUTILIZED DISADVANTAGED BUSINESS ENTERPRISES (UDBE):** 3 percent

BY: \_\_\_\_\_ Dated:  
Rachel Ford, City Clerk

## ***Information For Bidders***

### **1. *General***

The work hereunder must be done in strict conformity with the plans and specifications adopted and approved by the City of Ridgecrest.

### **2. *Contract Documents***

(a) The contract documents shall consist of the following:

- Notice Inviting Sealed Bids
- Information for Bidders
- Bidder's Reference
- Bidder's Reference Financial
- Designation of Subcontractors
- Noncollusion Affidavit
- Bid Form
- Schedule of Bid Items
- Bid Bond
- Worker's Compensation Certificate
- Agreement
- Performance Bond
- Payment Bond
- General Conditions
- Special Conditions
- Construction Specifications
- Project Plans
- Standard Plans
- Addenda Issued Prior to Bid Opening
- Certificate(s) of Insurance
- Workman's Compensation Certificate
- Section V: Federal Provisions

(b) All terms and conditions contained in the contract documents shall become a part of the contract. The City Council of the City of Ridgecrest reserves the right to reject any and all bids and to waive any and all irregularities in any bids. No bidder may withdraw his bid until the City has made a final award to the successful bidder or has rejected all bids.

**3. License**

No bid will be valid from a contractor who is not licensed in accordance with the law under the provisions of Division III, Chapter 9, of the Business and Professions Code of the State of California and pursuant to Section 7028.15 the contractor must state, under penalty of perjury, the contractor's license number, and the license's expiration date. Any bid not containing this information shall be considered nonresponsive and shall be rejected. The contractor and any subcontractors shall obtain a current City of Ridgecrest Business License prior to the start of work.

**4. Bids**

Bids shall be made upon the "Bid Form" furnished by the City. All bids shall be properly executed with all items filled in; numbers shall be stated both in writing and in figures; the signatures of all persons signing shall be in longhand. Erasures, interlineations, or other corrections shall be authenticated by affixing in the margin immediately opposite the correction, the initials of the person signing the bid. In the event words and figures do not agree, the words shall govern and the figures shall be disregarded. If the unit price and the total amount named by a bidder for any item are not in agreement, the unit price alone shall be considered as representing the bidder's intention and the totals shall be corrected to conform thereto.

Persons bidding shall submit bids on all of the schedules set forth in the bid form. Bids shall not contain any recapitulation of the work to be done. Alternative bids will not be considered except as called for. No oral, telegraphic, or telephonic bids or modifications will be considered.

Bids shall be accompanied by a cashier's or certified check or bid bond in an amount not less than ten percent (10%) of the bid, made payable to or for the benefit of (as the case may be) the City of Ridgecrest. Said check or bond shall be given as a guarantee that the bidder will enter into a contract if awarded the work, and in case of refusal or failure to furnish to the City the required contract bonds and proof of insurance coverage within fifteen (15) calendar days after written "Notice of Award" by the City or in the case of refusal or failure by the bidder to execute the contract after he has received notice from the City that the contract is ready for signature, the check and the money represented by said check or the bid bond shall be forfeited to the City.

Before submitting a bid, bidders shall carefully examine all contract documents, shall visit the site of the work, shall fully inform themselves as to all the existing conditions and limitations, and shall include in the bid a sum to cover the cost of all items included in the contract. No allowance will be made because of a lack of such examination or knowledge. Bids shall be sealed in an envelope marked "BID FOR Pavement Construction Project ", addressed to the City Clerk, City of Ridgecrest, be delivered

thereto on or before **4:00 p.m. on \_\_\_\_\_, 2010**, and shall bear the name of the bidder. It is the SOLE responsibility of the bidder to see that his bid is delivered and received in proper time. Any bid received after the scheduled closing time for receipt of bids shall be returned to the bidder unopened.

The City shall have a period of sixty (60) days, after the opening of bids, within which to accept or reject the bids. If the successful bidder executes and delivers the necessary contract documents to the City, then the City will return to each bidder all checks and bonds received by the City within ten (10) days after the execution of the contract and presentation of required certificates and bonds. If no bid is accepted within said period, then the City will return to each bidder all checks and bonds received by the City within ten (10) days after being requested to do so by the bidder.

**5. *Agreement and Bonds***

The form of the contract, which the successful bidder as contractor will be required to execute, is included in the contract documents and should be carefully examined by the bidder. The agreement, bonds, and other documents to be executed by the contractor shall be executed in original triplicates, stamped according to law, one of which original triplicate shall be filed with the City, and the others with the City's Attorney and the City's Engineer. The successful bidder, simultaneously with the execution of the agreement, will be required to furnish and maintain a payment bond in an amount equal to one hundred percent (100%) of the contract as security for the payment of all persons performing labor and furnishing material for the project, and a separate faithful performance bond in an amount equal to one hundred percent (100%) of the contract price. Said bonds shall be secured from a surety company satisfactory to the City as an approved and financially sound surety company, authorized to transact business in this state.

Said bonds shall meet all of the requirements and contain all of the conditions required by Sections 3247 and 3248 inclusive of the Civil Code, and other applicable provisions of the law and/or regulations of the State of California.

Failure to execute the contract and file acceptable bonds and proof of insurance coverage as provided therein within the time set forth herein shall be just cause for the annulment of the award and forfeiture of the bid guarantee.

**6. *Addenda or Bulletins***

Any addenda or bulletins issued before the time in which to submit bids expires, or forming a part of the contract documents furnished to the bidder for preparation of his bid, shall be covered in the bid and shall be made a part of the contract.

**7. *Withdrawal of Bid***

Any bidder may withdraw his bid either personally or by a signed written request any time prior to the scheduled time for opening of the bids, but not after.

**8. *Award or Rejection of Bids***

The contract will be awarded to the lowest responsible bidder complying with these instructions and with the Notice Inviting Sealed Bids. The City reserves the right to reject any and all bids or to waive any informality or irregularity in bids received. If in the judgment of the City a bid is unbalanced, or if the bidder is not responsible, it shall be considered sufficient grounds for rejection of the entire bid.

**9. *Bidders Interested in More than One (1) Bid***

No person, firm, or corporation shall make, file, or be interested in more than one (1) bid for the same work unless alternative bids are called for. A person, firm, or corporation submitting a subbid to a bidder or who has quoted prices on material to a bidder is not thereby disqualified from submitting a subbid or quoting prices to other bidders.

**10. *Other Requirements***

Before entering into a contract, the bidder to whom the contract has been awarded shall furnish satisfactory evidence that he has secured for the period of the contract full Workmen's Compensation Insurance and Public Liability and Property Damage Insurance as specified in the General Conditions from a responsible insurance company approved by the City and authorized to do business in California, and such insurance shall be maintained in full force and effect at his own expense during the life of the contract and shall name the City, its officers, and employees as additional insureds under the policies.

As part of the bid the bidder shall furnish a recent statement of his financial condition and previous construction experience or such other evidence of his qualifications.

**11. *Engineer's Estimate***

The preliminary estimate of quantities of work to be done and materials to be furnished are approximately as shown in the contract documents and are given as a basis for the comparison of bids. The City does not expressly or by implication agree that the actual amount of work will correspond therewith but reserves the right to increase or decrease the quantity of any item or portion of the work or to omit portions of the work that may be deemed necessary or expedient by its Engineer or by the City. The bidder shall not

at any time after the submission of his bids have any claim for damages as a result of lowering of anticipated profits or the loss of profits because of any difference between the quantities of work actually done and those stated in the bidding sheets.

The contractor is cautioned against unbalancing his bid by including more than the pro-rata share of his overhead and profit in any item. Each bid item should be priced to carry its share of the cost, overhead, and profit.

**12. *Tour of Site***

A tour of the site of the proposed work has been set for **10:00 a.m. on \_\_\_\_\_, 2011**. The tour will start at City Hall, 100 West California Avenue, Ridgecrest, California.

**13. *Prevailing Wage***

The general prevailing rates of per diem wages and general prevailing wages for holiday and overtime work in the locality in which the work is to be performed have been determined. A copy of such determination is on file in the office of the City Clerk in the City of Ridgecrest and are available to any interested person on request.

It shall be mandatory on the contractor to whom the contract is awarded and upon any subcontractors under him to pay not less than the specified rate to all workers employed in the execution of the contract. Contractor will post one copy of the prevailing rates of wages at the job site.

**14. *Substitutions of Securities for Withheld Contract Funds***

Pursuant to Chapter 13 (commencing with Section 45901, Division 5, Title 1 of the Government Code of the State of California), contractor may, at his sole cost and expense, substitute securities for any monies which would otherwise be withheld by the City to insure performance under the contract. Such securities shall be deposited with the City or with a state or federally chartered bank as escrow agent who shall pay such monies to the contractor upon satisfactory completion of the contract.

The contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon. Securities eligible for investment under this section shall include those listed in Government Code 16430 or Bank/Savings and Loan Certificates of Deposit. In order to substitute securities, the contractor shall enter into an agreement with the City entitled "Agreement Concerning Investment of Funds" as attached to the contract.

CITY OF RIDGECREST  
100 West California Avenue  
Ridgecrest, California 93555

## PAVEMENT CONSTRUCTION PROJECT

### *Bidder' s Reference*

The following statements as to experience of the bidder are submitted in conjunction with the bid as part thereof and the truthfulness and accuracy of the information is guaranteed by the bidder.

The bidder has been engaged in the contracting business, under the present business name for \_\_\_\_ years. Experience in work of a nature similar to that covered in the bid extends over a period of \_\_\_\_ years.

The bidder, as a contractor, has never failed to satisfactorily complete a contract awarded to him except as follows (name any and all exceptions and reasons therefore):

The following contracts have been satisfactorily completed in the last three (3) years for the persons, firms, or authorities indicated, and to whom reference is made (name five (5) contracts):

<i>Year</i>	<i>Type of Work</i>	<i>Contract Amount</i>	<i>Location and for Whom Performed</i>



CITY OF RIDGECREST  
100 West California Avenue  
Ridgecrest, California 93555

## PAVEMENT CONSTRUCTION PROJECT

### *Bidder' s Financial Reference*

Reference is hereby made to the following bank or banks as to the financial responsibility of the bidder:

<i>Name of Bank</i>	<i>Address</i>

Reference is hereby made to the following surety companies as to the financial responsibility and general reliability of the bidder:

Name of Surety Company

Name of Surety Company

Signature of Bidder

Title

Contractor' s License Number - State of California

CITY OF RIDGECREST  
100 West California Avenue  
Ridgecrest, California 93555

## **PAVEMENT CONSTRUCTION PROJECT**

### ***Designation of Subcontractors***

In compliance with the provisions of Sections 4100-4108 inclusive, of the Government Code of the State of California and any amendments thereof, each bidder shall set forth below: (a) the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the contractor in or about the construction of the work or improvement in an amount in excess of one-half of one percent (.5%) of the contractor's total bid; and (b) the portion of the work which will be done by each subcontractor.

If the contractor fails to specify a subcontractor for any portion of the work to be performed under the contract in excess of one-half of one percent (.5%) of the contractor's total bid, he agrees to perform that portion himself.

The contractor shall not, without the consent of the City, either (a) substitute any person as subcontractor in place of the subcontractor designated in the original bid; (b) permit any such subcontract to be assigned or transferred or allow it to be performed by anyone other than the original subcontractor cited in the bid; or (c) sublet or subcontract any portion of the work in excess of one-half of one percent (.5%) of the contractor's total bid as to which his original bid did not designate a subcontractor.

The City may consent to a substitution of another person as a subcontractor, when the subcontractor named in the bid after having had a reasonable opportunity to do so fails or refuses to execute a written contract when said contract, based upon the general terms, conditions, plans, and specifications for the project involved, or the terms of such subcontractor's written bid, is presented to him by the contractor.

Subletting or subcontracting of any portion of the work in excess of one-half of one percent (.5%) of the contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the City Council setting forth the facts constituting the emergency or necessity.

If the contractor violates any of the provisions of said Sections 4100-4108 inclusive, of said Government Code, or any amendments thereof, he violates his contract and the City may cancel the contract. After any such violation, the contractor shall be penalized to the extent of



**PAVEMENT CONSTRUCTION PROJECT**  
***Non-Collusion Affidavit***  
***To Be Executed By Bidder And Submitted With Bid***

State of California    )  
                                  ) ss.  
County of Kern        )

The undersigned declares under penalty of perjury as follows:

1. I am employed by \_\_\_\_\_ of the party making the foregoing bid as \_\_\_\_\_.

2. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation.

3. 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.

4. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract.

5. All statements contained in the bid are true.

6. The bidder has not, directly or indirectly, submitted the bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association,

organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

**IN WITNESS WHEREOF**, the parties hereto have executed this Agreement, or caused it to be executed as of the day, month, and year first above written

CONTRACTOR

By

Title

CITY OF RIDGECREST

By

Title

APPROVED AS TO FORM:

LEMIEUX & O'NEILL

By

ATTEST:

By

## ***Bid Form***

BID TO THE CITY OF RIDGECREST FOR

### **WEST RIDGECREST BOULEVARD RECONSTRUCTION PROJECT**

Name of Bidder

Business Address

Mailing Address

Phone Number \_\_\_\_\_ Place of Residence

TO THE CITY COUNCIL OF THE CITY OF RIDGECREST:

Pursuant to and in compliance with your Notice Inviting Sealed Bids and other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the contract and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated in the contract, including all of its component parts and everything required to be performed, and to provide and furnish any and all of the labor, material, tools, expendable equipment, and all utility and transportation services necessary to perform the contract and complete in a workmanlike manner all of the work required in connection with the construction of Pavement Construction Project, all in strict conformity with the plans and specifications and other contract documents, including Addenda No's. \_\_\_\_, \_\_\_\_, \_\_\_\_, and \_\_\_\_, on file in the office of the Public Works Director of the City of Ridgecrest for the contract unit prices hereinafter set forth. The following documents are attached hereto and made a part of this bid:

- Notice Inviting Sealed Bids
- Information for Bidders
- Bidder's Reference
- Bidder's Reference Financial
- Designation of Subcontractors
- Noncollusion Affidavit
- Bid Form
- Schedule of Bid Items
- Bid Bond
- Worker's Compensation Certificate
- Agreement
- Performance Bond
- Payment Bond
- General Conditions
- Special Conditions

- Construction Specifications
- Project Plans
- Federal Provisions

The undersigned as bidder declares that the only persons or parties interested in this bid as principals are those named herein, that this bid is made without collusion with any person, firm, or corporation, and he proposes and agrees if this bid is accepted that he will execute a contract with the City of Ridgecrest substantially in the form of the contract set forth in the contract documents, that he will accept in full payment thereof for the following lump sum cost and unit prices, to wit:

# WEST RIDGECREST BOULEVARD RECONSTRUCTION PROJECT

## *Schedule of Bid Items*

<i>Bid Item</i>	<i>Item Description with Price Written in Words</i>	<i>Unit</i>	<i>Quantity</i>	<i>Unit Price</i>	<i>Total</i>
1	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	1		
2	CONSTRUCTION SITE MANAGEMENT	LS	1		
3	PREPARE STORM WATER POLLUTION PREVENTION PLAN (SWPPP)	LS	1		
4	WATER POLLUTION CONTROL	LS	1		
5	STORM WATER ANNUAL REPORT	LS	1		
6	LEAD COMPLIANCE PLAN	LS	1		
7	CONSTRUCTION AREA SIGNS	LS	1		
8	TRAFFIC CONTROL SYSTEM	LS	1		
9	TEMPORARY BARRICADES (TYPE III)	EA	40		
10	BARRICADES (TYPE III)	EA	20		
11	TEMPORARY PAVEMENT MARKING (PAINT)	SF	1,100		
12	4" TEMPORARY TRAFFIC STRIPE (PAINT)	LF	34,050		
13	6" TEMPORARY TRAFFIC STRIPE (PAINT)	LF	50		
14	8" TEMPORARY TRAFFIC STRIPE (PAINT)	LF	100		
15	CHANNELIZER (SURFACE MOUNTED)	EA	945		
16	REMOVE FENCE	LF	170		
17	REMOVE YELLOW TRAFFIC STRIPE AND PAVEMENT MARKING	LF	9750		
18	REMOVE TRAFFIC STRIPE AND PAVEMENT MARKING	LF	5,410		
19	REMOVE PAVEMENT MARKER	EA	16		
20	REMOVE ROADSIDE SIGN	EA	14		
21	REMOVE CONCRETE (SIDEWALK, DRIVEWAY, AND PARKING LOT)	SF	22,650		
22	REMOVE CONCRETE (CURB & GUTTER)	LF	3,120		
23	RELOCATE HYDRANT	EA	2		

24	RELOCATE MAILBOX	EA	5		
25	RELOCATE GATE	EA	2		
26	RELOCATE SIGN	EA	17		
27	RELOCATE WATER SERVICE AND METER	EA	12		
28	RELOCATE WATER VALVE	EA	3		
29	ADJUST SEWER CLEANOUT TO GRADE	EA	2		
30	ADJUST WATER METER BOX TO GRADE	EA	6		
31	ADJUST FIRE HYDRANT TO GRADE	EA	2		
32	ADJUST MANHOLE TO GRADE	EA	10		
33	ADJUST WATER VALVE COVER TO GRADE	EA	58		
34	RECONSTRUCT MANHOLE	EA	15		
35	COLD PLANING ASPHALT CONCRETE PAVEMENT	SY	835		
36	CLEARING AND GRUBBING	LS	1		
37	ROADWAY EXCAVATION	CY	19,500		
38	HIGHWAY PLANTING	LS	1		
39	PLANT ESTABLISHMENT WORK	LS	1		
40	IRRIGATION SYSTEM	LS	1		
41	FULL DEPTH REHABILITATION (FDR) AND GRADING	SF	534,500		
42	AGGREGATE BASE (CLASS 2)	CY	875		
43	ASPHALT CONCRETE (TYPE A)	TON	21,300		
44	HOT ASPHALT CONCRETE (MISC AREA)	TON	80		
45	MINOR CONCRETE (COLOR CONCRETE)	CY	25		
46	ROADSIDE SIGN - ONE POST	EA	35		
47	FURNISH AND INSTALL SIGN	EA	45		
48	PAINT CONCRETE SURFACE (RED CURB)	LF	1,165		
49	18" REINFORCED CONCRETE PIPE	LF	214		
50	18" PRECAST CONCRETE FLARED END SECTION (TYPE B)	EA	2		
51	TYPE "GO" DRAINAGE INLET	EA	2		

52	ROCK SLOPE PROTECTION	CY	8		
53	MINOR CONCRETE	CY	1,800		
54	INSTALL WATER METER	EA	2		
55	PEDESTRIAL RAILING	LF	190		
56	MISCELLANEOUS IRON AND STEEL (TREE GRATES)	EA	25		
57	BARBED WIRE FENCE	LF	21		
58	CHAIN LINK FENCE	LF	135		
59	SURVEY MONUMENT	EA	20		
60	4" THERMOPLASTIC TRAFFIC STRIPE	LF	43,400		
61	6" THERMOPLASTIC TRAFFIC STRIPE	LF	9,400		
62	8' THERMOPLASTIC TRAFFIC STRIPE	LF	1,825		
63	THERMOPLASTIC PAVEMENT MARKING	SF	3,650		
64	PAVEMENT MARKERS AND DELINEATORS	EA	1,115		
65	CONCRETE BLOCK PAVER	SF	510		
66	DECORATIVE BOLLARD	EA	6		
67	SIGNAL AND LIGHTING (RIDGECREST/DOWNS)	LS	1		
68	SIGNAL AND LIGHTING (RIDGECREST/NORMA)	LS	1		
69	SIGNAL AND LIGHTING (RIDGECREST/CHINA LAKE BLVD)	LS	1		
70	LIGHTING (CITY STREET)	LS	1		
71	MOBILIZATION	LS	1		
72	INTERCONNECT CONDUIT AND CABLE	LS	1		
TOTAL					

COMPANY NAME

AUTHORIZED SIGNATURE

It is understood that the foregoing quantities are approximate only and are solely for the purpose of facilitating the comparison of bids, and that the contractor's compensation will be computed upon the basis of the actual quantities in the complete work, whether they be more or less than those shown.

ACCOMPANYING THIS BID IS \_\_\_\_\_ (insert the words "cash", "bid bond", or "certified check", as the case may be), in an amount equal to at least ten percent (10%) of the total of the bid, payable to the City of Ridgecrest.

The undersigned deposits the above-named security as a bid guarantee and agrees that it shall be forfeited to the City of Ridgecrest as liquidated damages in case this bid is accepted by the City and the undersigned fails to contract as aforesaid; and to give the two (2) bonds in the form set forth in the contract documents of the City in the sums to be determined as aforesaid, with surety and all insurance satisfactory to the City as required in the specifications, within fifteen (15) days including Sundays after the date of mailing of the acceptance, otherwise said security shall be returned to the undersigned per Information for Bidders (4) Bids.

The bidder agrees that he will not withdraw his bid after bids have been opened.

Contingent only upon award of contract by the City of Ridgecrest, the undersigned irrevocably binds himself and agrees to execute a contract for work awarded as provided for herein on the form of agreement made a part hereof, and to furnish surety bonds as required in these specifications in the form entitled "Performance Bond" and "Payment Bond", both attached hereto.

The names of all persons interested in the foregoing bids as principals are as follows: (IMPORTANT NOTICE - IF BIDDER OR OTHER INTERESTED PERSON IS A CORPORATION, STATE LEGAL NAME OF CORPORATION, ALSO NAMES OF THE PRESIDENT, SECRETARY, TREASURER, AND MANAGER THEREOF; IF A CO-PARTNERSHIP, STATE TRUE NAME OF FIRM, ALSO NAMES OF ALL INDIVIDUAL CO-PARTNERS COMPOSING FIRM; IF BIDDER OR OTHER PERSON IS AN INDIVIDUAL, STATE FIRST AND LAST NAMES IN FULL.)

---

---

---

---

---

---

The undersigned declares under penalty of perjury that he is licensed in accordance with the provisions of Division III, Chapter 9, of the Business and Professions Code of the State of California, License No. \_\_\_\_\_ expires on \_\_\_\_\_.

BIDDER

Name

Address

Authorized Signature

Dated:

Note: If bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if bidder is a co-partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnership; and if the bidder is an individual, his signature shall be placed above; if a special partnership, the names of the general partners and special partners.

CITY OF RIDGECREST  
100 West California Avenue  
Ridgecrest, California 93555

**WEST RIDGECREST BOULEVARD RECONSTRUCTION PROJECT**

***Bid Bond***

**KNOW ALL MEN BY THESE PRESENTS:**

That \_\_\_\_\_ as

Principal, and \_\_\_\_\_ as

Surety, are held and firmly bound unto the City of Ridgecrest, hereinafter called "City", in the sum of:

\_\_\_\_\_ dollars(\$ \_\_\_\_\_),  
(not less than ten percent (10%) of the total amount of the bid)

for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, said Principal has submitted a bid to said City to perform all work required under the City's specifications entitled Pavement Construction Project.

**NOW THEREFORE**, if said Principal is awarded a contract by said City and, within the time and in the manner required under the heading "Information for Bidders" bound with said specifications, enters into a written contract on the form of agreement bound with said specifications, and furnishes the required bonds, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void, otherwise it shall remain in full force and effect. In the event that suit is brought upon this

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

Date

PRINCIPAL

By  
Title

SURETY

By  
Title

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

**WEST RIDGECREST BOULEVARD RECONSTRUCTION PROJECT**

***Workers' Compensation Certificate***

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

BIDDER

Name

Address

Authorized Signature

Dated:

Note: If contractor is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if the contractor is a co-partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnerships; and if the corporation is an individual, the signature shall be typed above; if a special partnership, the names of the general partners and special partners shall be shown.

**Agreement  
For The Construction Of**

**WEST RIDGECREST BOULEVARD RECONSTRUCTION PROJECT**

As of \_\_\_\_\_, 2010, the City of Ridgecrest, hereinafter "City", and \_\_\_\_\_, hereinafter "Contractor", agree as follows:

**Article 1. GENERAL**

**Section 1. Scope of Work**

Contractor will furnish all labor, equipment, and materials and will perform all work for the construction of the facilities described in the plans and specifications attached hereto and hereby incorporated by this reference.

**Section 2. Consideration**

City shall pay Contractor the sum set forth in Contractor's bid attached hereto and hereby incorporated by this reference for the performance of the work hereunder.

**Section 3. Payments**

(a) Monthly progress payments shall be processed as follows:

(1) On or about the twenty-fifth (25th) day of each month, Contractor shall submit to City a payment application including an updated construction schedule, and an estimate of the cumulative amount and value of the work performed by Contractor prior to that date and subsequent to any prior estimates. The estimate may include ninety percent (90%) of the value of all acceptable materials and equipment delivered to the work site. The estimate shall be based on certified copies of paid invoices by the Contractor.

(2) Upon receipt of the payment application, the City shall review the application as soon as practicable to determine whether the payment request is proper. Any

payment request determined not to be a proper payment shall be returned within seven (7) days after receipt accompanied by a written description of the reasons why the payment request is not proper.

(3) City shall pay Contractor, within fifteen (15) days of receipt of the payment application, ninety percent (90%) of the payment application amount reduced by: amount due to City for equipment, services, or materials furnished by City; amounts of any claims or liens by the City or others, and amounts required to be deducted by federal, state, or local governmental authorities.

(4) If the City fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted payment application, the City shall pay to the Contractor interest equivalent to the legal rate set forth in Code of Civil Procedure Section 685.101(a) from seven (7) days after receipt of the payment application by the City until paid.

(5) No progress payment shall be construed as acceptance of the work, or any portion thereof, nor shall such payment preclude City from demanding and recovering from Contractor such damages as may be sustained by reason of Contractor's failure to fully perform this contract.

(b) Upon satisfactory completion of the work described herein, City shall pay Contractor a sum equal to ninety percent (90%) of the actual work completed less prior monthly progress payments.

(c) Within sixty (60) days after the date of completion, the amounts withheld by the City shall be released. Provided, the City may withhold from the final payment any amount not to exceed one hundred fifty percent (150%) of the disputed amount. For purposes of this section, "completion" means:

(1) The acceptance by the governing body of the City.

(2) Cessation of labor on the work for a continuous period of thirty (30) days or more, if the City files a notice of cessation.

(d) Notwithstanding the foregoing, Contractor may receive payment in full, other than retention for claims by the City or third parties, if the Contractor first deposits approved securities or enters into an agreement with an escrow agent to hold earned retentions. The

substitution of securities or the use of an escrow account shall be in the form and manner permitted by law. The escrow agent shall be licensed to do business and do business within the territorial limits of the City.

**Section 4. Contract Documents**

The complete contract includes all of the contract documents set forth herein, to wit: the Notice Inviting Sealed Bids, Information for Bidders, Bidder's Reference, Bidder's Reference Financial, Designation of Subcontractors, Noncollusion Affidavit, Bid Form, Schedule of Bid Items, Bid Bond, Worker's Compensation Certificate, this Agreement, Performance Bond, Payment Bond, General Conditions, Special Conditions, Construction Specifications, Project Plans, and Federal Provisions and Addenda issued prior to bid opening, all attached hereto.

**Section 5. Compliance with Provisions of Law**

(a) This City is a public agency of the State of California and is subject to the provisions of the law relating to public agencies. All provisions of law applicable to public contracts are a part of this contract to the same extent as those set forth fully herein and shall be complied with by Contractor.

(b) Contractor shall comply with all provisions of law relating to the work.

**Section 6. Attorneys' Fees**

The Court shall award reasonable costs and expenses, including attorneys' fees, to the prevailing party in any action or proceeding brought to enforce the provisions of this Agreement.

**Section 7. Notices**

Any notice required or permitted under this contract shall be given by personal delivery or by first class mail, postage prepaid,

To: City of Ridgecrest

Public Works Department  
100 W. California Avenue  
Ridgecrest, CA 93555

**Section 8. Conflict With Plans and Specifications**

Any conflict between the plans and specifications and this contract shall be brought to the attention of the City which shall resolve such conflict.

**Section 9. Assignment**

(a) Contractor shall not assign this contract or payments due hereunder.

(b) In entering this contract or a subcontract to this contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C.A. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to this works contract or a subcontract. This assignment shall be made and become effective at the time the City tenders final payment to the Contractor, without further acknowledgment by the parties.

**Section 10. Paragraph Headings**

The paragraph headings in this contract are for the convenience of the parties and shall not affect the interpretation of this Agreement.

**Section 11. Authority of City Representative**

City's representative shall decide all 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, all questions as to the interpretation of the plans and specifications and all questions as to the acceptable fulfillment of the contract on the part of the Contractor.

**Article 2. WAGES, HOURS, AND WORKING CONDITIONS**

**Section 12. Prevailing Wage Payments**

(a) The general prevailing rates of per diem wages and general prevailing wages for holiday and overtime work in the locality in which the work is to be performed have been determined. A copy of such determination is on file at the office of the City Clerk. Contractor and all subcontractors will not pay less than the specified prevailing rates of wages to all workers employed in the execution of the contract. Contractor will post one (1) copy of the prevailing rates of wages at the job site.

(b) For each calendar day or portion thereof, and for each worker paid less than the prevailing rates for such work or craft in which the worker is employed or any work done under the contract by him, or any subcontractor, Contractor shall forfeit as penalty to the City the sum of **five hundred dollars (\$500.00)**.

**Section 13. Travel and Subsistence Payments**

(a) Travel and subsistence payments shall be paid to each worker as such payments are defined in the applicable collective bargaining agreements filed with the Department of Industrial Relations for the particular craft, classification, or type of work involved.

**Section 14. Hours of Work**

(a) Eight (8) hours labor constitutes a legal day's work pursuant to this contract. The time of service of any worker employed upon the project is limited and restricted to eight (8) hours during any one (1) calendar day and forty (40) hours during any one (1) calendar week unless the employee is compensated at a rate of one and one-half (1 ½) times the basic rate of pay for all times in excess of the foregoing hours.

(b) Contractor shall keep and make available an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker in connection with the project.

(c) As a penalty to the City, Contractor shall forfeit five hundred dollars (\$500.00) for each worker 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 or forty (40) hours in any one (1) calendar week in violation of the provisions of this section.

**Section 15. Apprentices**

Contractor is responsible for complying with the provisions of the Labor Code dealing with the employment of apprentices on the job site.

**Section 16. Subcontractors**

(a) Contractor shall comply with the *Subletting and Subcontracting Fair Practices Act* contained in Public Contracts Code Sections 4100 *et seq.*

(b) Contractor shall submit to City the following information:

(i) The name and location of the place of business of each subcontractor who will perform work or labor or render services to the prime contractor in or about the construction of the work, or a subcontractor licensed by the State of California, who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent (.5%) of the prime Contractor's total bid.

(ii) The portion of the work which will be done under each such subcontractor under Act.

(c) The Contractor shall list only one (1) subcontractor for each portion as defined by the Contractor in the bid.

**Section 17. Discrimination**

The Contractor shall not refuse to employ or promote any person, and shall not discriminate against any person with respect to compensation received or terms and conditions of employment, and shall not discipline or discharge any person employed by him because of said person's race, religion, creed, color, national origin, ancestry, or sex; nor shall the Contractor refuse to accept otherwise qualified employees as indentured apprentices solely on the grounds of race, religion, creed, color, national origin, ancestry, or sex.

**Section 18. Safety**

Contractor and subcontractors shall comply with the provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the

*Contract Work Hours and Safety Standards Act*, as set forth in Title 29, C.F.R. and by the Secretary of California, Division of Industrial Safety.

**Section 19. Character of Workers**

Only competent workers shall be employed on the work. Any person employed, who is found to be incompetent, intemperate, troublesome, disorderly, or otherwise objectionable, or who fails or refuses to perform work properly and acceptably, shall be immediately removed from the work by the Contractor and not be re-employed on the work.

**Article 3. INSURANCE, INDEMNIFICATION, AND BONDS**

**Section 20. Insurance**

(a) Contractor shall purchase and maintain insurance to protect the Contractor and the City from claims set forth below which may arise out of or result from Contractor's operations under the contract and for which the Contractor may be legally liable, whether such operations are by the Contractor or by a subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable: Claims under workers' compensation, disability benefits, and other similar benefit acts which are applicable to the work performed; Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees; Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees; Claims for damages insured by usual personal injury liability coverage which are sustained (1) by a person as a result of an offence directly or indirectly related to employment of such person by the Contractor, or (2) by any other persons; Claims for damages, other than the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; Claims for damages because of bodily injury, death of a person, or property damage arising from ownership, maintenance, or use of a motor vehicle; Claims involving contractual liability insurance applicable to the Contractor's obligations under as previously defined. Claims for damage to work in progress.

(b) The insurance required by this section shall be written for not less than limits of liability specified in the contract documents or required by law, whichever coverage is greater. The insurance shall be purchased from a company or companies lawfully authorized to do business in the jurisdiction in which the project is located. Coverages shall be written on an occurrence basis without interruption from the date of commencement of the work until date of final payment and termination of any coverage required to be maintained after final payment. City, its officers, agents, and employees shall be named as additional insured.

(c) Certificates of insurance executed by the carrier(s) and acceptable to the City and copies of the policy shall be filed with the City prior to the commencement of the work. The Certificates and the insurance policies required by this section shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least thirty (30) days prior written notice has been given to the City. If any of the insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final application for payment. Information concerning reduction of coverage shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

(d) Contractor shall require each subcontractor to maintain policies of insurance covering the hazardous, and under the conditions, mentioned above and having the City, its officers, agents, volunteers, and employees as additional insurers. Copies of the subcontractor's certificates of insurance and policies shall be filed with the City.

#### **Section 21. Indemnification**

(a) Contractor shall indemnify and save the City, its officers, agents, volunteers, and employees, free and harmless from any and all costs, damages, or liability, including attorneys' fees, arising out of any act or omission to act including any negligent act or omission to act by Contractor, its officers, agents, subcontractors, and employees with respect to the performance of the work or of any of the Contractor's obligations under this contract,

except when such loss or damage was caused by the sole negligence or willful misconduct of the City, its officers, agents, volunteers, or employees.

(b) In addition to the foregoing, Contractor shall pay City all costs, including attorneys' fees, incurred by the City in handling, responding to, or litigating stop notice claims or other demands against funds due to the Contractor or against the Contractor's payment bond by Contractor's officers, agents, or employees, including subcontractors.

#### **Section 22. Payment Bond**

(a) Before entering upon the performance of the work, Contractor shall file a payment bond with and approved by the City. The payment bond shall be in the sum of one hundred percent (100%) of the total amount payable to the Contractor.

(b) The Payment Bond shall be in substantially the form of the payment bond attached hereto. The bond shall be executed by a representative of the surety who has no financial interest in the Contractor. The payment bond shall be separate and distinct from any other bond required by this contract. The bond shall be equivalent quality to a Standard & Poor's rating of AAA or higher.

#### **Section 23. Performance Bond**

(a) Contractor shall execute and deliver to City for its approval and acceptance a performance bond in the sum of one hundred percent (100%) of the contract price. The bond shall be payable by surety or sureties to City if Contractor fails to fully perform his obligations hereunder.

(b) The bond shall be in substantially the form of the performance bond attached hereto. The bond shall be executed by a representative of the surety who has no financial interest in the Contractor. The payment bond shall be separate and distinct from any other bond required by this contract. The bond shall be equivalent quality to a Standard & Poor's rating of AAA or higher.

## Article 4. PERFORMANCE

### Section 24. Time for Completion

(a) The work shall be completed within two hundred ten (210) calendar days from the starting date set forth in the Notice to Proceed.

(b) City desires the project to be completed on or before the date specified. If the work is not completed on or before the date, the City will incur substantial damages which cannot be ascertained at this time. Accordingly, except for delays for which the City is responsible and which are unreasonable under the circumstances and not within the contemplation of the parties, Contractor shall pay to City any and all damages caused by Contractor's delay in completing the work as herein provided.

(c) If the work is not completed in accordance with the foregoing, the City will suffer damage, and it is impractical and infeasible to determine the amount of actual damage. The Contractor shall pay to the City, as fixed and liquidated damages and not as a penalty, the sum of **five thousand dollars (\$5000.00)** each and every calendar day of delay, and the Contractor and Contractor's Surety shall be liable for the amount, provided the Contractor shall not be charged liquidated damages because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor (including but not restricted to acts of God, or of the public enemy, acts of the Government, acts of the City, or acts of another Contractor in the performance of a contract with the City, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, or delays of subcontractors due to such causes).

(d) Within ten (10) days from the beginning of any such delay (unless the City shall grant a further period of time prior to the date of final settlement of the contract), the Contractor shall notify the City in writing of the cause of delay. City shall ascertain the facts and extent of the delay and extend the time for completing the work if in City's judgment the findings of fact justify such an extension. The City's findings of fact thereon shall be final and conclusive on the parties hereto.

(e) The City may extend the time for completion if City determines such extension to be in the best interest of the City. If the City extends the time limit for the completion of the work, by way of a change order, at the request of the Contractor, for other than acts of God and situations beyond the control of both parties, such extension will increase the City's financial obligations incurred for engineering, inspection, supervision, incidental, and overhead expenses that are directly chargeable to the contract and accruing during the period of extension. Therefore, the Contractor shall reimburse City for such reasonable charges before the final payment without penalty.

(f) The City may deduct the liquidated damages set forth herein from progress payments or from the City's final payment. The payment of progress payments before or after the scheduled completion date with or without set off for liquidated damages shall not constitute a waiver of liquidated damages.

#### Section 25. **Acts of God**

Contractor shall not be responsible for the cost of repairing or restoring damage to the work exceeding five percent (5%) of the contract price and determined to have been proximately caused by earthquakes in excess of the magnitude of 3.5 on the Richter Scale and tidal waves if damaged work is built in accordance with accepted and applicable building standards and the plans and specifications of the City.

#### Section 26. **Utility Relocation**

(a) As between the parties, City is responsible for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the job site, if such utilities are not identified by the City in the plans and specifications. As to such utilities, Contractor shall be compensated for: the costs of relocation; repairing damage not due to the failure of Contractor to exercise reasonable care; removing or relocating such utilities not included in the plans and specifications with reasonable accuracy; and equipment on the project necessarily idled during such work. Contractor shall not be assessed liquidated damages for delay in

completion of the project, when the delay is caused by the failure of the City or the owner of the utility to provide for removal or relocation of such facilities.

(b) Nothing herein shall require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the work site can be inferred from the presence of other visible facilities, such as buildings or metering junction boxes, on or adjacent to the work site.

(c) Contractor shall immediately notify the City and utility in writing, if the Contractor, while performing the contract, discovers utility facilities not identified by the City in the contract plans or specifications.

#### **Section 27. Public Convenience**

(a) Contractor's operation shall cause no unnecessary public inconvenience. The access rights of the public shall be considered at all times. Unless otherwise authorized, traffic shall be permitted to pass through the work or an approved detour shall be provided. Safe, adequate, continuous, and unobstructed pedestrian and vehicular access shall be maintained to fire hydrants, residences, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, and hospitals, unless other arrangements are made satisfactory to the owners thereof.

(b) Vehicular and pedestrian access to driveways and commercial businesses within the limits of the project shall be maintained to the property line except when necessary construction. Contractor to coordinate all necessary sidewalk and driveway closures with the business owner to accommodate their business hours and use. The Contractor shall take precautions so as not to entrap vehicles on private property during the progress of work. Access for emergency vehicles shall be available within the construction area at all times.

(c) All work shall be performed between 8:30 a.m. to 4:30 p.m. Monday thru Thursday and between 8:30 a.m. to 3:00 p.m. on Fridays and the day preceding a legal holiday.

(d) A minimum of one 12' traffic lane in each direction shall remain open at all times where shown on the Plans.

(e) Construction of curb ramps must be prosecuted in a manner that allows for the continued use by pedestrians at the intersection being worked on. Pedestrian traffic on both sides of the corridor shall be provided. Sidewalk closure to through-traffic shall be allowed, as directed by the Engineer. Pedestrian access to businesses shall always be provided. Any required closures needed for construction purposes must be coordinated with the business owner to avoid impacting how the business operates. Sidewalk closure for each location shall be limited to a combined maximum of three (3) weeks over the duration of construction. **Sidewalks signs indicating that the sidewalk and/or curb ramp, are closed to through pedestrian traffic are required. These signs are to be placed at the ¾ points up the adjacent blocks and on the two opposite corners of the primary street. In order for the sidewalk to be considered open, there must be at least a four foot (4' ) path of travel around the sidewalk corner. A \$1000 per calendar day administrative penalty shall be paid by the Contractor for each day that access and signing is not maintained as required in the paragraph.** Warning signs stating “SIDEWALK CLOSED USE OTHER SIDE” shall be installed when no sidewalk is provided during construction.

(f) The curb ramp construction areas must be closed to the public with the use of barricades and caution tape along the sidewalk edges and appropriate traffic cones on the street edges. These protective devices must be maintained continuously during the period that the curb ramp is closed to pedestrian traffic.

(g) The Contractor shall furnish, install temporary stripes and maintain temporary construction warning signs, lighting, flaggers, barricades, striping and other devices necessary to safeguard the general public and the work, and to provide for the safe and proper routing of all vehicular and of pedestrian traffic within and through the limits of the project during construction. The requirement shall apply continuously and shall not be limited to normal working hours.

(h) Grading operations, roadway excavation, and embankment construction shall be conducted by the Contractor in a manner to provide a reasonably satisfactory surface for traffic. When rough grading is completed, the roadbed surface shall be brought to a smooth even condition satisfactory for traffic.

(i) The Contractor shall comply with all applicable state and local requirements for closure of streets. Contractor shall provide barriers, guards, lights, signs, temporary bridges, flagmen, and watchmen advising the public of detours and construction hazards. Contractor shall also be responsible for compliance with additional public safety requirements which may arise during construction. Contractor shall furnish and install and upon completion of work, promptly remove all signs and warning devices.

(j) At least forty-eight (48) hours in advance of closing or partial closing or of reopening any street, alley, or other public thoroughfare, Contractor shall notify the police, fire, traffic, and engineering departments of jurisdictional agencies involved and comply with their requirements.

(k) All work within public streets and /or roadway right-of-way shall be done in an expeditious manner so as to cause as little inconvenience to the traveling public as possible. Skid-resistance steel plates or other approved methods shall be used to cover all open excavations in the roadway during non-working hours.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in public safety and convenience shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefore.

#### **Section 28. Public Notification**

(a) The Contractor shall notify residents and businesses within the project limits in writing five (5) working days in advance of beginning work. The notice shall describe the work to be performed, the anticipated duration of construction and the name and telephone number of the Contractor's representative that can be reached 24 hours a day, 7 days a week. The notice shall be submitted to the Engineer for review and approval (if satisfactory).

(b) Where sidewalk and driveway access are affected by construction activity, the Contractor shall issue a separate notice to affected property owners five (5) working days in advance of commencing any work on sidewalks and driveways. The notice shall describe the work to be performed and the anticipated duration of construction. The notice shall be submitted to the Engineer for review and approval (if satisfactory).

(c) The Contractor shall be responsible for issuing a separate notice to property owners five (5) working days in advance of commencing any work on private property. The notice shall describe the work to be performed and the anticipated duration of construction. The notice shall be submitted to the Engineer for review and approval (if satisfactory). Full compensation for public notification shall be included in the prices paid for various contract items of work and no additional compensation will be allowed therefore.

#### **Section 29. Removal of On-Street Parking**

(a) Ten (10) days prior to lane closures, the Contractor shall place signed barricades stating “NO PARKING” – (specific times and dates) – Tow Away” or “NO PARKING” – (specific times and dates) – This Block”, at 50 foot intervals in the work area. Prior to their use, the Contractor shall submit to the Engineer for review and approval the “NO PARKING” signs and mounting barricades. The Contractor shall notify the City Engineering Division immediately after the “NO PARKING” signs are in place. The Contractor shall supply the “NO PARKING” signs, hoods and barricades.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for payment of all fees and for doing all work involved in removal of on-street parking shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefore.

#### **Section 30. Excavations**

(a) Contractor shall submit for City approval, 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 trenches five feet (5') or more in depth. The plan shall be at least as effective as that required by the Construction Safety Orders of the California Division of Industrial Safety. If the plan varies from the shoring systems standards established by said Safety Orders, the plan shall be prepared by a registered civil or structural engineer.

(b) At the close of each working day, Contractor shall completely backfill all open excavation and cover the same with temporary asphalt mix in accordance with normal practice in the industry and the rules, regulations, laws, and ordinances of the State of California, the County of Kern, City of Ridgecrest.

(c) If the work involves digging trenches or excavations that extend deeper than four feet (4') below the surface, the Contractor shall promptly, and before the conditions are disturbed, notify the City, in writing, of any: (1) material the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, and required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (2) subsurface or latent physical conditions at the work site differing from those indicated; or (3) unknown physical conditions at the work site of any unusual nature, different material from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in the contract. The City shall promptly investigate the conditions. If the City finds the conditions are as alleged by the Contractor and conditions cause a change in the Contractor's cost, or the time required for performance, the City shall issue a change order under the other provisions of this contract. If a dispute arises whether the Contractor's findings are correct or whether the conditions cause a change in the Contractor's cost, or time required for performance, the Contractor shall not be excused from any scheduled completion date, 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 pertaining to resolution disputes and protests between the parties.

### Section 31. **Extra Work**

(a) Upon proper action by its governing body, the City may require changes in (field orders), additions to, or deductions from the work to be performed or to the materials to be furnished within the scope of this agreement. No extra work shall be performed or change made except pursuant of a written order from the City stating the extra work, field order, or change is authorized, and setting forth the basis upon which payment is to be made. No claim for additional compensation shall be valid unless pursuant to such a change order. Nothing in

this section shall excuse the Contractor from proceeding with the prosecution of the work so changed. When required by the City, the Contractor shall furnish an itemized breakdown of the quantities and prices used in computing the value of any ordered change.

(b) Adjustments in the amounts to be paid to the Contractor by reason of any such change, addition, or deduction shall be determined by one or more of the following methods:

By an acceptable lump sum proposal from the Contractor.

By unit prices contained in the Contractor's original bid and incorporated in the contract documents or fixed by subsequent agreement between the City and the Contractor.

By ordering the Contractor to proceed with the work and to furnish daily reports of extra work. The reports shall itemize all costs for labor, material, and equipment rental. The reports for workers shall include hours worked, rates of pay, names, and classification; and for equipment shall include size, type, identification number, and hours of operation. All records and reports shall be made immediately available to the engineer upon his request.

(c) When the City orders extra work (field order) to be done and there is an agreement between the City and the Contractor to perform the work, the City reserves the right to approve the method used by the Contractor to accomplish the work. At the request of the City, the method to be used shall be defined in the agreement prior to any work being performed by the Contractor.

(d) If the Contractor contends a proposed change is a substantial revision in the character of the work, the question shall be immediately submitted to an arbitrator for decision. The arbitrator's decision will be final and conclusive unless it is found to be fraudulent, capricious, arbitrary, or so grossly erroneous as necessarily to imply bad faith. Each party shall advise the other in advance of the arbitration of the material on which the party intends to rely and give the other a reasonable opportunity to refute or supplement any of such factual material.

## Section 32. **Clean-Up**

Upon completion of the work, Contractor shall remove all debris and surplus materials from the work site.

**Section 33. Materials**

(a) Unless otherwise specified, shown, or permitted by the City, all materials and equipment incorporated in the work shall be new and of current manufacture. The City may request the Contractor to furnish manufacturer's certificates to this effect.

(b) All materials furnished and all work performed hereunder shall be subject to inspection and testing by City's authorized agents at City's expense. If such inspection and testing reveals non-compliance with the requirements of this contract, the Contractor shall bear the cost of necessary corrective measures as well as the cost of subsequent inspecting and testing.

(c) The inspection of the work shall not relieve the Contractor of any of his obligations under the contract. Even though equipment, materials, or work required to be provided under the contract have been inspected, accepted, and estimated for payment, the Contractor shall replace or repair any such equipment, materials, or work found to be defective or otherwise not to comply with the requirements of the contract up to the end of the maintenance and guarantee period.

**Section 34. Permits and Licenses**

(a) Contractor shall apply for and procure all permits and licenses necessary for the work.

(b) Contractor shall give all notices necessary and incidental to the due and lawful prosecution of the work and shall comply duly with the terms and conditions of all permits and licenses.

(c) Contractor shall apply all charges and fees in connection with all permits and licenses.

(d) Contractor shall apply for and procure a Caltrans encroachment permit.

**Section 35. Land and Rights-of-Way**

(a) City shall provide all land and rights-of-way upon which the work is to be constructed.

(b) Contractor shall procure any additional rights-of-way desired by the Contractor to facilitate construction of the work. Contractor shall enter into written agreements with property owners for such purposes and shall provide City with copies of the agreements.

(c) Except as provided above relating to utility relocation, when the work is to be performed in the vicinity of existing improvements, such improvements shall not be disturbed or damaged except for such removal or relocation in the land and rights-of-way provided by the City or as unavoidable to accommodate the work.

#### **Section 36. Plans and Working Drawings Submitted by City**

(a) The approved plans shall be supplemented by such working drawings as are necessary to control the work adequately. All such drawings shall be consistent with the contract documents, true developments thereof, and reasonably inferable therefrom. All such drawings delivered to the Contractor shall be deemed written instructions to the Contractor.

(b) The City will furnish to the Contractor, free of charge, all copies of drawings, and specifications reasonably necessary for the execution of the work. The Contractor shall keep one set of drawings and specifications in good order available to the City's representative and to his representatives at the site of the work.

(c) The plans for the work show conditions as they are supposed or believed by the Engineer to exist. It is not intended or inferred the conditions as shown thereon constitute a representation by the City or its officers that such conditions actually exist. The City, its officers, agents, and employees shall not be liable for any loss sustained by the Contractor as a result of any variance of the conditions as shown on the plans and the actual conditions revealed during the progress of the work, or otherwise.

#### **Section 37. Shop Drawings Submitted by Contractor**

(a) Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are prepared by the Contractor or subcontractor, manufacturer, supplier, or distributor, and illustrating some portion of the work.

(b) The Contractor shall review, stamp with his approval, and submit for review by the City's representative shop drawings for all material and equipment to be incorporated into the work. Drawings shall be submitted in quadruplicate to the City's representative and be accompanied by a letter of transmittal listing the drawings submitted. Drawings shall show the name of the project, the name of the Contractor, and, if any, the names of suppliers, manufacturers, and subcontractors. Shop drawings shall be submitted with promptness and in orderly sequence so as to cause no delay in prosecution of the work.

(c) Shop drawings shall be complete in all respects. If the shop drawings show any deviations from the requirements of the plans and specifications because of standard shop practices or other reasons, the deviations and the reasons therefor shall be set forth in the letter of transmittal.

(d) By approving and submitting shop drawings, the Contractor represents that material, equipment, and other work shown thereon conforms to the plans and specifications except for the deviations set forth in the letter of transmittal.

(e) Within ten (10) working days after receipt of the drawings, the City will return two (2) prints of the drawings to the Contractor with comments noted thereon. If so noted by the City, the Contractor shall correct the drawings and resubmit them in the same manner as specified for the original submittal. The Contractor shall direct specific attention in the letter of transmittal accompanying resubmitted shop drawings to revisions other than the corrections requested by the City's representatives on previous submittals.

(f) The review of the City's representative is only of general conformance with the design concept of the project and general compliance with the plans and specifications and shall not be construed as relieving the Contractor of the full responsibility for: providing materials, equipment, and work required by the contract; the proper fitting and reconstruction of the work; the accuracy and completeness of the shop drawings; selecting fabrication processes and techniques of construction; and performing the work in a safe manner.

(g) No portion of the work requiring a shop drawing submittal shall be commenced until the submittal has been reviewed by the City's representative and returned to the Contractor with a notation indicating resubmittal is not required.

**Section 38. Supervision by the Contractor**

Before starting the work, the Contractor shall designate, in writing, a representative who shall have complete authority to act for the Contractor. An alternate representative may be designated. The representative or alternate shall be present at the work site whenever work is in progress. Any order or communication given to this representative shall be deemed delivered to the Contractor. A joint venture shall designate only one representative and alternate. In the absence of the Contractor or designated representative, necessary or desirable directions or instructions may be given by the City's representative to the superintendent or foreman having charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or the representative.

**Section 39. Inspection**

(a) The City's representative shall at all times have access to the work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship, and character of materials used and employed in the work.

(b) Whenever the Contractor varies the period during which work is carried on each day, he shall give due notice to the City's representative so proper inspection may be provided. Any work done in the absence of the City's representative will be subject to rejection.

(c) No materials shall be installed until approved by the City's representative. All installations which are to be backfilled shall be inspected and approved by the City's representative prior to backfilling and the Contractor shall give due notice in advance of backfilling to the City's representative so that proper inspection may be provided.

(d) The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill the contract as prescribed. Defective work shall be made good, and

unsuitable materials may be rejected notwithstanding the fact that such defective work and unsuitable materials have been previously overlooked by the City's representative and accepted.

**Section 40. Removal of Defective and Unauthorized Work**

(a) All work which has been rejected shall be remedial, or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed for such removal or replacement. Any work done beyond the lines and grades shown on the plans or established by the City's representative, or any extra work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense.

(b) Upon failure on the part of the Contractor to comply promptly with any order of the City's representative under this section, the City's representative shall have authority to cause defective work to be remedied or removed and replaced, and unauthorized work to be removed, and to deduct the costs from any monies due or to become due the Contractor.

**Section 41. Errors or Discrepancies Noted by Contractor**

(a) If the Contractor, either before commencing work or in the course of the work finds any discrepancy between the specifications and the drawings, or between either of them and the physical conditions at the site of the work, or finds any error or omission in any of the drawings or in any survey, Contractor shall promptly notify the City in writing of such discrepancy, error or omission. If the Contractor observes any drawings or specifications are at variance with any applicable law, ordinance, regulation, order, or decree, Contractor shall promptly notify the City in writing of such conflict.

(b) The City, on receipt of any such notice, shall promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor, either directly or indirectly after Contractor's discovery of such error, discrepancy, or conflict will be at Contractor's own risk and Contractor shall bear all costs arising therefrom.

**Section 42. Equipment**

The Contractor must furnish adequate equipment and facilities to perform properly the work in a workmanlike manner in accordance with these specifications. Such equipment and facilities must be in a good state of repair and maintained in such state during the progress of the work and shall meet all requirements of applicable ordinances and laws. No worn or obsolete equipment shall be used, and in no case shall the maker's rating of capacity for any equipment be exceeded.

**Section 43. Storage of Materials**

All materials for use in the work shall be stored by the Contractor in such a manner as to prevent damage from exposure to the elements, admixture of foreign materials, or from any other cause. The Contractor shall be entirely responsible for damage to or loss of materials by weather or other causes.

**Article 5. MISCELLANEOUS**

**Section 44. Guarantees**

Contractor guarantees all work from any defect in workmanship for the period of one (1) year from the date of acceptance of the work by the City and shall repair and replace any and all such work, together with any other work displaced in so doing, without expense whatsoever to the City, ordinary wear and tear, usual abuse, or neglect excepted. City may have the defects repaired and made good at the expense of the Contractor, if Contractor fails to comply with the above-mentioned conditions within a week after being notified in writing.

**Section 45. Risk of Loss Prior to Final Acceptance**

Except as set forth above relating to acts of God, all risk of loss resulting from total or partial destruction of the work, or any part thereof, or any damage thereto, prior to final acceptance of the work by City, shall be borne by Contractor regardless of the cause. Contractor shall repair or replace such damages or destroyed work, to its prior undamaged

condition before being entitled to additional progress payments or final payment. Total or partial destruction or damage shall not excuse Contractor from completion of the work in accordance with this contract.

**Section 46. Termination: Contractor at Fault**

(a) The City may declare the Contractor in default of contract, if the Contractor fails to meet any or all of the requirements of the contract, or be placed in or enter into bankruptcy, or should a receiver be appointed for Contractor's properties, or should Contractor make an assignment for the benefit of creditors. In such event, the City will notify the Contractor in writing. Upon receipt of any such written notice, the Contractor shall preserve at the project site all construction materials, equipment, and plant, and undertake immediate steps to remedy such default.

If the Contractor fails to remedy such default within five (5) calendar days after receipt of such written notice, the City may terminate the Contractor's right to proceed with the work as to which default has occurred. Upon receipt of such written notice, the Contractor shall for that work affected by any such termination:

- (1) assist the City in making an inventory of all materials and equipment in storage at the site, en route to the site, in storage or manufacture away from the site, and on order from suppliers;
- (2) assign to the City, subcontracts, supply contracts, and equipment rental agreements all as designated by the City; and
- (3) remove from the site, all construction materials, equipment, and plant listed in said inventory other than such construction materials, equipment, and plant which are designated in writing by the City to be used by the City in completing such work.

The City may complete the work to which notice applies by contract or otherwise, and may take possession of and to use any or all of the materials, plant, tools, equipment, supplies, and property of any and every kind furnished by the Contractor which is designated by the City in writing for such purpose.

The expense of completing such work, together with a reasonable charge for administering any contract for such completion, shall be charged to the Contractor, and such expense shall be deducted by the City out of such monies as may be due or may at any time thereafter become due to the Contractor. If this expense exceeds the sum otherwise payable under the contract, the Contractor and Contractor's sureties shall be liable for and shall, upon written notice from the City, promptly pay to the City, the amount of such excess. The City shall not be required to obtain the lowest figures for completing such work, but may make such expenditures as in the City's sole judgment will best accomplish such completion.

**Section 47. Termination: Contractor Not at Fault**

City may terminate the contract upon ten (10) days written notice to the Contractor, if City finds reasons beyond the control of either the City or Contractor make it impossible or against the City's interests to complete the work. In such a case, the Contractor shall have no claims against the City, except for the value of work performed to the date of termination, and for the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date of termination if such materials and equipment would be needed in the work. The value of work performed and the cost of materials and shipment delivered to the site, as mentioned above, shall be determined by the City in accordance with the procedure prescribed for the making of a final estimate and payment.

**Section 48. Resolution of Certain Claims**

(a) Notwithstanding the foregoing, any demand of three hundred seventy five thousand dollars (\$375,000), or less, by the Contractor for a time extension; payment of money or damages arising from the work done by or on behalf of the Contractor pursuant to this contract; or payment of an amount which is disputed by the City shall be processed in accordance with the provisions of Public Contracts Code Sections 20104 *et seq.* relating to informal conferences, non-binding judicially supervised mediation, and judicial arbitration.

(b) A single written claim shall be filed under this section prior to the date of final payment for all demands, including demands not subject to Public Contracts Code Sections 20104 *et seq.* arising out of the contract.

(c) Within thirty (30) days of the receipt of the claim, the City may request additional documentation supporting the claim or relating to defenses or claims the City may have against the Contractor. If the amount of the claim is less than fifty thousand dollars (\$50,000), the Contractor shall respond to the request for additional information within fifteen (15) days after receipt of the request. The Contractor shall respond to the request within thirty (30) days of receipt if the amount of the claim exceeds fifty thousand dollars (\$50,000) but is less than three hundred seventy five thousand dollars (\$375,000).

(d) Unless further documentation is requested, the City shall respond to the claim within forty-five (45) days if the amount of the claim is less than fifty thousand dollars (\$50,000) or within sixty (60) days if the amount of the claim is more than fifty thousand dollars (\$50,000) but less than three hundred seventy five thousand dollars (\$375,000). If further documentation is requested, the City shall respond within the same amount of time taken by the Contractor to respond or fifteen (15) days, whichever is greater, after receipt of further information if the claim is less than fifty thousand dollars (\$50,000). If the claim is more than fifty thousand dollars (\$50,000) but less than three hundred seventy five thousand dollars (\$375,000) and further documentation is requested by the City, the City shall respond within the same amount of time taken by the Contractor to respond or thirty (30) days, whichever is greater.

(e) If the Contractor disputes the City's response, or the City fails to respond, the Contractor may demand an informal conference to meet and confer for settlement of the issues in dispute. The demand shall be served on the City within fifteen (15) days after the deadline of the City to respond or within fifteen (15) days of the City's response, whichever occurs first. The City shall schedule the meet and confer conference within thirty (30) days of the request.

(f) If the meet and confer conference does not produce a satisfactory request, the Contractor may pursue remedies authorized by law.

**IN WITNESS WHEREOF**, the parties hereto have executed this Agreement, or caused it to be executed as of the day, month, and year first above written.

CONTRACTOR

By \_\_\_\_\_

Title \_\_\_\_\_

CITY OF RIDGECREST

By \_\_\_\_\_

Title \_\_\_\_\_

APPROVED AS TO FORM:

LEMIEUX & O'NEILL

By \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

***Performance Bond***

**KNOW ALL MEN BY THESE PRESENTS:**

**WHEREAS**, the City of Ridgecrest, a municipal corporation in the County of Kern, State of California, hereinafter called "City", by action of its City Council on the \_\_\_\_\_ th day of **2010**, awarded to \_\_\_\_\_, hereinafter designated as "Contractor", a contract for Pavement Construction Project; and

**WHEREAS**, said Contractor is required under the terms of said contract to furnish a bond for the faithful performance of said contract;

**NOW THEREFORE**, we the Contractor and \_\_\_\_\_, as Surety, are held and firmly bound unto the City in the penal sum of:

\_\_\_\_\_ dollars (\$\_\_\_\_\_), lawful money of the United States of America, for the payment of which sum well and truly to be made, we bond ourselves, our heirs, executors, administrators, and successors, jointly and severally and firmly by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH THAT** if the above-bounden Contractor, his, her, 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, including but not limited to the payment of liquidated damages, and any alteration thereof made as therein provided, on his, hers, or its part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City, its officers, and

agents, as therein stipulated, this obligation shall become null and void; otherwise it shall be and remain in full force and virtue. Surety, for value received, hereby stipulates and agrees no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligations on this bond, and it does thereby waive notice of any such change, extension of time, alteration, or addition to the terms of the contract, or to the work, or to the specifications, and said Surety agrees that in case suit is brought on this bond, Surety will pay City's reasonable Attorney's fees to be fixed by the court.

**IN WITNESS WHEREOF**, three identical counterparts of this instrument, each of which shall for all purposes, be deemed an original hereof, have been duly executed by the Contractor and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

By: \_\_\_\_\_

\_\_\_\_\_  
Contractor

(Attach Acknowledgment)

By: \_\_\_\_\_

Surety

\_\_\_\_\_

By: \_\_\_\_\_

Attorney-in-fact

APPROVED AS TO FORM:  
LEMIEUX & O'NEILL

By: \_\_\_\_\_

***Payment Bond***

**KNOW ALL MEN BY THESE PRESENTS:**

**WHEREAS**, the City of Ridgecrest, a municipal corporation in the County of Kern, State of California, hereinafter called "City", by action of its City Council on the \_\_\_\_th day of \_\_\_\_\_, **2010**, awarded to \_\_\_\_\_, hereinafter designated as "Contractor", a contract for Pavement Construction Project; and

**WHEREAS**, said Contractor is required to furnish a bond in connection with contract, providing if Contractor or any of his, her, or its subcontractors shall fail to pay for any materials, provisions, provender, or other supplies, or teams used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act, the Surety on this bond will pay the same to the extent hereinafter set forth.

**NOW THEREFORE**, we the Contractor and \_\_\_\_\_, as Surety, are held and firmly bound unto the City in the penal sum of:

\_\_\_\_\_ dollars (\$\_\_\_\_\_), lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH** that if Contractor, his, her, or its subcontractors, heirs, executors, administrators, successors, or assigns, shall fail to pay for any materials, provisions, provender, or other supplies, or teams used in, upon, for, or about the performance of the work contracted to be done, or for work or labor thereon of any kind, or fail to pay any of the persons named in California Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor, and all other applicable laws of the State of California and rules and regulations of its agencies, then Surety will pay the same in or to an amount not exceeding the amount hereinabove set forth, and also will pay, in case suit is brought upon this bond, such reasonable attorney's fees as shall be fixed by the court, pursuant to Section 3181 of the California Civil Code.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond, such reasonable attorney's fees as shall be fixed by the court, pursuant to Section 3181 of the California Civil Code.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond, and the Surety, for value received, hereby stipulates and agrees no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation 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, or to the work, or to the specifications.

**IN WITNESS WHEREOF**, three identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Contractor and Surety above named on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

By: \_\_\_\_\_

Contractor

(Attach Acknowledgment)

By: \_\_\_\_\_

Surety

By: \_\_\_\_\_

Attorney-in-fact

APPROVED AS TO FORM:  
LEMIEUX & O'NEILL

By: \_\_\_\_\_

***SECTION II: GENERAL CONDITIONS***

## ***Contract Requirements***

### ***GC-1 Definition of Terms***

Whenever in the specifications or in any of the contract documents or instruments which these specifications govern, the following terms are used, they shall be defined as follows:

- (a) AGENCY: The Department of Public Works of the City of Ridgecrest
- (b) CITY COUNCIL: City Council of the City of Ridgecrest
- (c) STATE/CITY: The City of Ridgecrest, a municipal corporation, County of Kern, State of California, acting either directly or through its authorized agents.
- (d) DEPARTMENT: City of Ridgecrest, Department of Public Works
- (e) CITY or OWNER: City of Ridgecrest, Department of Public Works
- (f) CALTRANS: State of California Department of Transportation
- (g) CALTRANS SPECIFICATIONS: State of California, Department of Transportation, Latest Standard Plans and Specifications.
- (h) DIRECTOR: Public Works Director, Department of Public Works, City of Ridgecrest, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.
- (i) ENGINEER / CM: Resident Engineer, or his designee, as appointed by the City of Ridgecrest Department of Public Works.
- (j) BIDDER: Any individual, firm, or corporation submitting a bid for the work contemplated, acting directly or through a duly authorized representative.
- (k) BID: The offer of the bidder for the work when made out and submitted on the prescribed bid form, properly signed, and guaranteed.
- (l) CONTRACTOR: The person or persons, co-partnership, or corporation who have entered into a contract with the Owner, as party or parties of the second part of his or their legal representatives.

- (m) SUBCONTRACTOR: Any person, firm, or corporation other than an employee of the contractor, supplying for and under agreement either with the contractor or any other subcontractor of the contractor, labor, materials, or both at the site of the project in connection with this contract.
- (n) SURETY: Any firm or corporation executing a surety bond or bonds payable to the City, securing the performance of the contract either in whole or in part, or securing payment of claims for labor and material.
- (o) STANDARD SPECIFICATIONS: City of Ridgecrest Standard Standards and Details dated 1986. The directions, provisions, and requirements contained herein approved by the Engineer.
- (p) PLANS: Those certain drawings, plans, profiles, typical cross-sections, and working drawings approved by the Engineer.
- (q) STATE STANDARD PLANS/STANDARD PLANS: The Standard Plans dated May 2006, of the State of California Department of Transportation (CALTRANS). Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the City of Ridgecrest, officer, or officer acting under this contract.
- (r) STATE STANDARD SPECIFICATIONS / STANDARD SPECIFICATIONS: The State Standard Specifications dated May 2006, of the State of California Department of Transportation (CALTRANS) and the City of Ridgecrest Standard Specifications dated December 3 1986. Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the City of Ridgecrest, officer, or officer acting under this contract.
- (s) REFERENCE TO STANDARDS: Whenever the following abbreviations are used, they shall be defined as follows:

ABBREVIATIONS:

AWWA -	American Water Works Association
AAN -	American Association of Nurserymen
AASHO -	American Association of State Highway Officials
AREA -	American Railway Engineering Association
ASA -	American Standards Association
ASTM -	American Society for Testing Materials
AWA -	American Welding Society
AWPA -	American Wood Preservers Association
NEMA -	National Electrical Manufacturers Association

In Caltrans State Standard Specifications and these Special Provisions, all references to "State", "Caltrans", or "Department" shall be interpreted as "The City of Ridgecrest".

These Technical Specifications shall also mean special provisions.

### **GC-2      *Priority of Special Conditions***

Where provisions in the Special Conditions setting forth conditions or requirements disagree or conflict with, add to or detract from provisions or specific clauses elsewhere in these specifications, the Special Conditions will prevail unless a different interpretation is given in writing by the Engineer whose decision in such matters shall be final.

Listing of Order of Precedence:

a. In resolving disputes resulting from conflicts, errors, omissions, ambiguities, or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:

- Change Orders or Work Directive Changes
- Agreement
- Addenda
- Contractor's Bid (Bid Forms)
- Supplementary General Conditions
- Notice Inviting Bids
- Instructions to Bidders
- General Conditions of the Contract
- Technical Specifications
- Contract Drawings
- Referenced Standard Specifications
- Referenced Standard Drawings

b. With reference to the Drawings the order of precedence shall be as follows:

- Figures govern over scaled dimensions
- Detail drawings govern over general drawings
- Addenda or Change Order drawings govern over Contract Drawings
- Contract drawings govern over standard drawings
- Contract drawings govern over shop drawings

### **GC-3      *Notice and Service Thereof***

Any notice from one party to the other under the contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notice shall not be effective for any

purpose whatsoever unless served in the following manner: (a) If the notice is given to the City by personal delivery thereof to the individual duly authorized to direct and supervise the project for the City, or by depositing same in the United States mail, enclosed in a sealed envelope, addressed to the City for the attention of said individual, postage prepaid; (b) If the notice is given to the contractor by personal delivery thereof to said contractor or to his foreman at the site of the project, or by depositing the same in the United States mail, enclosed in a sealed envelope, addressed to the contractor at his regular place of business or at such other address as may have been established for the conduct of the work under this contract, postage prepaid; or (c) If the notice is given to the Surety or any other person by personal delivery to such Surety or other person, or by depositing the same in the United States mail, enclosed in a sealed envelope, addressed to such Surety or other person last communicated by him to the party giving the notice, postage prepaid.

**GC-4      *Assignment of Contract***

The contractor shall not assign this contract or any part thereof, nor any monies due or to become due thereunder without the prior written consent of the City. No assignment of this contract shall be valid unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for performance of the work called for under this contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

**GC-5      *Subcontractors***

- (a) Bidders on all contracts for the construction of any public work or improvement other than contracts for the construction, improvement or repair of streets or highways, including bridges, shall set forth in their bids:
  - (1) The name, location, and place of business of each subcontractor who will perform work or labor or render service to the general contractor in or about the construction of the work or improvement in an amount in excess of one-half of one percent (.5%) of the total bid; and
  - (2) The portion of the work which will be done by each such subcontractor.
  
- (b) Specialty subcontractors shall be utilized for the performance of such parts of the work under this contract as, under normal contract practices, are performed by specialty subcontractors unless the City determines that the contractor has heretofore customarily performed such specialty work with

his own organization and is equipped to do so, or unless the City determines that performance of the specialty work by specialty subcontractors will result in increased costs or inordinate delays.

- (c) The contractor shall not subcontract any work to be performed or any materials to be furnished in the performance of this contract to any subcontractor other than those listed in the accepted bid without the prior written consent of the City and in accordance with law. If the contractor shall subcontract any part of this contract, the contractor shall be as fully responsible to the City for the acts and omissions of his subcontractor and of the persons either directly or indirectly employed by the subcontractor as he is for the acts and omissions of persons directly employed by himself. Nothing contained in this contract shall create any contractual relation between any subcontractor and the City.
- (d) The City's consent to or approval of any subcontract under this contract shall not in any way relieve the contractor of his obligations under this contract and no such consent or approval shall be deemed to waive any provision of this contract.

### ***Disadvantaged Business Enterprises***

Under 49 CFR 26.13(b):

The contractor, sub recipient 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 recipient deems appropriate.

Take necessary and reasonable steps to ensure that DBEs have opportunity to participate in the contract (49 CFR 26).

To ensure there is equal participation of the DBE groups specified in 49 CFR 26.5, the Department specifies a goal for Underutilized Disadvantaged Business Enterprises (UDBEs). UDBE is a firm that meets the definition of DBE and is a member of one of the following groups:

1. Black Americans
2. Native Americans
3. Asian-Pacific Americans
4. Women

References to DBEs include UDBEs, but references to UDBEs do not include all DBEs.

Make work available to UDBEs and select work parts consistent with available UDBE subcontractors and suppliers.

Meet the UDBE goal shown in the Notice Inviting Sealed Bids or demonstrate that you made adequate good faith efforts to meet this goal.

It is your responsibility to verify that the UDBE firm is certified as DBE at date of bid opening. For a list of DBEs certified by the California Unified Certification Program, go to:

[http://www.dot.ca.gov/hq/bep/find\\_certified.htm](http://www.dot.ca.gov/hq/bep/find_certified.htm)

Only UDBE participation will count towards the UDBE goal. DBE participation will count towards the Department's federally mandated statewide overall DBE goal.

Credit for materials or supplies you purchase from UDBEs counts towards the goal in the following manner:

1. 100 percent counts if the materials or supplies are obtained from a UDBE manufacturer.
2. 60 percent counts if the materials or supplies are obtained from a UDBE regular dealer.
3. Only fees, commissions, and charges for assistance in the procurement and delivery of materials or supplies count if obtained from a UDBE that is neither a manufacturer or regular dealer. 49 CFR 26.55 defines "manufacturer" and "regular dealer."

You receive credit towards the goal if you employ a UDBE trucking company that performs a commercially useful function as defined in 49 CFR 26.55.

#### UDBE Commitment Submittal

Submit UDBE information on the Caltrans Bidder - UDBE - Commitment form included in the Bid book. If the form is not submitted with the bid, remove the form from the Bid book before submitting your bid.

If the UDBE Commitment form is not submitted with the bid, the apparent low bidder, the 2nd low bidder, and the 3rd low bidder must complete and submit the UDBE Commitment form to Office Engineer. UDBE Commitment form must be received by the Department no later than 4:00 p.m. on the 4th business day after bid opening.

Other bidders do not need to submit the UDBE Commitment form unless the Department requests it. If the Department requests you to submit a UDBE Commitment form, submit the completed form within 4 business days of the request.

Submit written confirmation from each UDBE stating that it is participating in the contract. Include confirmation with the UDBE Commitment form. A copy of a UDBE's quote will serve as written confirmation that the UDBE is participating in the contract.

If you do not submit the UDBE Commitment form within the specified time, the Department finds your bid nonresponsive.

#### Good Faith Efforts Submittal

If you have not met the UDBE goal, complete and submit the Good Faith Efforts Documentation form with the bid showing that you made adequate good faith efforts to meet the goal. Only good faith efforts directed towards obtaining participation by UDBEs will be considered. If good faith efforts documentation is not submitted with the bid, it must be received by the Department no later than 4:00 p.m. on the 4th business day after bid opening.

If your UDBE Commitment form shows that you have met the UDBE goal or if you are required to submit the UDBE Commitment form, you must also submit good faith efforts documentation within the specified time to protect your eligibility for award of the contract in the event the Department finds that the UDBE goal has not been met.

Good faith efforts documentation must include the following information and supporting documents, as necessary:

1. Items of work you have made available to UDBE firms. Identify those items of work you might otherwise perform with its own forces and those items that have been broken down into economically feasible units to facilitate UDBE participation. For each item listed, show the dollar value and percentage of the total contract. It is your responsibility to demonstrate that sufficient work to meet the goal was made available to UDBE firms.
2. Names of certified UDBEs and dates on which they were solicited to bid on the project. Include the items of work offered. Describe the methods used for following up initial solicitations to determine with certainty if the UDBEs were interested, and the dates of the follow-up. Attach supporting documents such as copies of letters, memos, facsimiles sent, telephone logs, telephone billing statements, and other evidence of solicitation. You are reminded to solicit certified UDBEs through all reasonable and available means and provide sufficient time to allow UDBEs to respond.

3. Name of selected firm and its status as a UDBE for each item of work made available. Include name, address, and telephone number of each UDBE that provided a quote and their price quote. If the firm selected for the item is not a UDBE, provide the reasons for the selection.
  4. Name and date of each publication in which you requested UDBE participation for the project. Attach copies of the published advertisements.
  5. Names of agencies and dates on which they were contacted to provide assistance in contacting, recruiting, and using UDBE firms. If the agencies were contacted in writing, provide copies of supporting documents.
  6. List of efforts made to provide interested UDBEs with adequate information about the plans, specifications, and requirements of the contract to assist them in responding to a solicitation. If you have provided information, identify the name of the UDBE assisted, the nature of the information provided, and date of contact. Provide copies of supporting documents, as appropriate.
  7. List of efforts made to assist interested UDBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, and materials, excluding supplies and equipment that the UDBE subcontractor purchases or leases from the prime contractor or its affiliate. If such assistance is provided by you, identify the name of the UDBE assisted, nature of the assistance offered, and date. Provide copies of supporting documents, as appropriate.
  8. Any additional data to support demonstration of good faith efforts.
- The Department may consider UDBE commitments of the 2nd and 3rd bidders when determining whether the low bidder made good faith efforts to meet the UDBE goal.

**GC-6      *Mutual Responsibility of Contractors***

If, through acts or neglect on the part of the contractor, any other contractor or any subcontractor of any other contractor shall suffer loss or damage on the work, the contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall file any claim against the City on account of any damage alleged to have been so sustained, the City shall notify the contractor, who shall indemnify and save harmless the City against any such claim.

The contractor must ascertain to his own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by the City in the prosecution of the project to the end that the contractor may perform this contract in the light of such other contracts, if any. Nothing herein contained shall be interpreted as granting to the contractor exclusive occupancy of the site of the project. The contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the project. If the performance of any contract for the project is likely to be interfered with by the simultaneous execution of some other contract or contracts, the City shall decide which contractor shall cease the work temporarily and which contractor shall continue, or whether the work under the contracts can be coordinated so that the contractors may proceed simultaneously.

The City shall not be responsible for any damages suffered or extra costs incurred by the contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the project, or caused by any decision or omission of the City respecting the order of precedence in the performance of contracts.

**GC-7      *Personal Interest of City Officials***

No official of the City who is authorized to negotiate, make, accept, approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction, or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for the City who is authorized to exercise any executive, supervisory, or together similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part hereof, or any other contract relating to the performance of this contract.

**GC-8      *Termination for Breach, Etc.***

If the contractor refuses or fails to prosecute the work or any separable part thereof, with such diligence as will insure its completion within the time specified in this contract or any extension thereof, or fails to complete said work within such time, or if the contractor shall be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of the contractors insolvency, or if he or any of his subcontractors should violate any of the provisions of this contract, the City may serve written notice upon him and his Surety of its intention to terminate this contract, such notice to contain the reasons for such intention to terminate this contract and, unless within ten (10) days after the serving of such notice such violations shall cease and satisfactory arrangements for the correction thereof be made, this contract shall upon the expiration of said ten (10) days cease and terminate. In the event of any such termination, the City shall immediately serve written notice thereof upon the Surety and the contractor and the Surety shall have the right to take over the performance of the contract provided, however, that if the Surety within fifteen (15) days after the serving upon it of notice of termination does not elect to perform the contract or does not commence performance thereof within thirty (30) days from the date of the serving of such notice, the City may take over the work under the contract and prosecute the same to completion by contract or by any other method it may deem advisable for the account and at the expense of the contractor and his Surety shall be liable to the City for any excess cost or other damages occasioned the City thereby, and in such event the City may without liability for so doing take possession of and utilize in completing the

contract such materials, appliances, plant, and other property belonging to the contractor as may be on the site of the project and necessary therefore.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the City.

**GC-9 *Permits and Compliance with Law***

The contractor shall keep himself fully informed of all existing and future state and national laws and local ordinances and regulations which in any manner affect those engaged or employed in the work or the materials used in the work or which in any way affect the conduct of the work.

The contractor shall at his expense obtain all permits and licenses necessary for the performance of this contract, give all necessary notices, pay all fees required by law, and comply with all laws, ordinances, rules, and regulations governing the contractor's performance of the contract.

***Caltrans Bidder - DBE Information Form***

Complete and sign the Caltrans Bidder - DBE Information form included in the contract documents even if no DBE participation is reported. Submit it with the executed contract.

Provide written confirmation from each DBE that the DBE is participating in the contract. A copy of a DBE's quote serves as written confirmation. If a DBE is participating as a joint venture partner, the Department encourages you to submit a copy of the joint venture agreement.

***Performance of DBEs***

Use each DBE subcontractor as listed on the Subcontractor List form unless you receive authorization for a substitution.

The Department requests the Contractor to:

1. Notify the Engineer of any changes to its anticipated DBE participation
2. Provide this notification before starting the affected work

Maintain records including:

1. Name and business address of each 1st-tier subcontractor
2. Name and business address of each DBE subcontractor, DBE vendor, and DBE trucking company, regardless of tier

3. Date of payment and total amount paid to each business

If you are a DBE contractor, include the date of work performed by your own forces and the corresponding value of the work.

Before the 15th of each month, submit a Monthly DBE Trucking Verification form. For a DBE that leases trucks from a non-DBE, count only the fee or commission the DBE receives as a result of the lease arrangement.

If a DBE subcontractor is decertified before completing subcontracted work, the subcontractor must notify you in writing of the decertification date. If a subcontractor becomes a certified DBE before completing subcontracted work, the subcontractor must notify you in writing of the certification date. Submit the notifications. On contract work completion, complete a Disadvantaged Business Enterprises (DBE) Certification Status Change form. Submit the form within 90 days of contract acceptance.

Upon contract work completion, complete a Final Report – Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors form. Submit it within 90 days of contract acceptance. The Department withholds \$10,000 until the form is submitted. The Department releases the withhold upon submission of the completed form.

***Performance of UDBEs***

UDBEs must perform work or supply materials as listed in the Caltrans Bidder - UDBE - Commitment form specified under Section 2, "Bidding," of these special provisions. Do not terminate a UDBE listed subcontractor for convenience and perform the work with your own forces or obtain materials from other sources without prior written authorization from the Department.

The Department grants authorization to use other forces or sources of materials for requests that show any of the following justifications:

1. Listed UDBE fails or refuses to execute a written contract based on plans and specifications for the project.
2. You stipulated that a bond is a condition of executing the subcontract and the listed UDBE fails to meet your bond requirements.
3. Work requires a contractor's license and listed UDBE does not have a valid license under Contractors License Law.
4. Listed UDBE fails or refuses to perform the work or furnish the listed materials.
5. Listed UDBE's work is unsatisfactory and not in compliance with the contract.
6. Listed UDBE delays or disrupts the progress of the work.
7. Listed UDBE becomes bankrupt or insolvent.

If a listed UDBE subcontractor is terminated, you must make good faith efforts to find another UDBE subcontractor to substitute for the original UDBE. The substitute UDBE must perform at least the same amount of work as the original UDBE under the contract to the extent needed to meet the UDBE goal.

The substitute UDBE must be certified as a DBE at the time of request for substitution. The Department does not pay for work or material unless it is performed or supplied by the listed UDBE or an authorized substitute.

### ***Construction Requirements***

#### ***GC-10 Existing Utilities***

The accuracy or completeness of information on existing utilities is not guaranteed, and unless otherwise cared for by the owner thereof, all water, gas or sewer lines, lighting, power or telephone conduits, structures, house connection lines, and other surface or sub-surface structures of any nature that may be affected by the work shall be maintained by the contractor and shall not be disturbed, disconnected, or damaged by him during the progress of the work, provided that should the contractor in the performance of the work disturb, disconnect, or damage any of the above, all expenses of whatever nature arising from such disturbance or replacement or repair thereof shall be borne by the contractor.

In case it should be necessary to move permanently or to maintain temporarily the property of any public utility or other property, the cost shall be borne by the contractor.

The right is reserved to the State, County, or City therein and to the owners of public utilities and franchises to enter upon any street, road, right-of-way, or easement for the purpose of maintaining or of making necessary repairs or changes in their property made necessary by the work.

#### ***GC-11 Rights-of-Way***

The rights-of-way for the work to be constructed will be provided by the City. The contractor shall make his own arrangements and pay all expenses for additional area required by him outside the limits of rights-of-way unless otherwise provided in these documents.

#### ***GC-12 Construction Schedule and Periodic Estimates***

Immediately after execution and delivery of the contract, and before the first partial payment is made, the contractor shall deliver to the Engineer a construction progress schedule satisfactory to the Engineer showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the contract documents and the anticipated amount of each monthly payment that will become due the contractor in accordance with the progress schedule.

**GC-13     *Reports***

The contractor and each subcontractor shall submit to the Engineer such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records, and miscellaneous data pertaining to the contract as may be requested by the Engineer.

**GC-14     *Prosecution of Work***

The work under this contract shall be prosecuted with all materials, tools, machinery, apparatus, and labor necessary to complete substantial execution of everything described, shown, or reasonably implied under this contract and within the time specified herein.

The contractor shall give to the Engineer full information in advance as to his plans for carrying on any part of the work. If at any time before the beginning, or during the progress of the work, any part of the contractors plant, equipment, or any of his methods of execution of the work appear to the Engineer to be unsafe, inefficient, or inadequate to insure the required quality or rate of progress of the work, he may suggest that the contractor increase or improve his facilities or methods, but neither compliance with suggestions nor failure of the Engineer to make any suggestions shall relieve the contractor from his obligation to secure the degree of safety, the quality of the work, and the rate of progress required of the contractor. The contractor alone shall be responsible for the safety, adequacy, and efficiency of his plant, equipment, and methods.

At any time after the contractor has commenced work he shall not cease work without the approval of the Engineer. If the contractor ceases work without the necessary approval for more than two (2) working days, it shall be assumed that the work is abandoned and the Surety shall be so notified.

**GC-15     *Starting of Work***

The contractor shall begin work within fifteen (15) calendar days from the date of the "Notice to Proceed" and shall diligently prosecute the same to completion before the expiration of the number of calendar days provided herein. Prior to the commencement of work a preconstruction conference will be mutually scheduled

by the City and contractor, but in no case later than ten (10) calendar days from the date of the "Notice to Proceed".

**GC-16 Contractor's Responsibility for Work**

- (a) Until the formal acceptance of the work by the City, the contractor shall have the charge and care thereof, and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the work. The contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof.
- (b) Neither the City, the Engineer nor their authorized representatives shall be answerable or accountable in any manner for any loss or damage that may happen to the work, or for any injury or damage to any person or persons, either workman or the public, or for damage to adjoining property from any cause whatsoever during the progress of the work or at any time before final acceptance.
- (c) The contractor shall indemnify and save harmless the City, the Engineer, and their authorized representatives from any suits, claims, or actions brought by any person or persons for or on account of any injuries or damages sustained or arising in the construction of the work or in consequence thereof. The City may retain as much of the money due the contractor as shall be considered necessary until disposition has been made of any such suits or claims for damages as aforesaid.

**GC-17 Public Convenience and Safety**

It shall be the responsibility of the contractor and he shall provide and maintain at his own expense all facilities and means for public convenience and safety herein specified in accordance with the provisions of the contract. The contractor shall so conduct his operations as to cause the least possible obstruction and inconvenience to public traffic. Unless other existing streets are stipulated by the City to be used as detours, all traffic shall be permitted to pass through the work.

Residents along the street shall be provided passage as far as practicable. Convenient access to driveways, houses, and buildings along the street shall be maintained and temporary crossings shall be provided and maintained in good condition. Not more than one crossing or intersecting street shall be closed at any one time without the approval of the Engineer.

The contractor shall furnish, erect, and maintain such fences, barriers, lights, and signs as are necessary to give adequate warning of any dangerous conditions to be encountered as a result thereof and he shall also erect and maintain such warning and directional signs as may be furnished by the City.

**GC-18                      Protection of Utilities**

*(a) Protection of Utility Facilities*

The contractor shall take all necessary measures to avoid injury to existing surface and underground utility facilities in and near the site of the work. No error or omission on the plans shall be construed to relieve the contractor from his responsibility to protect all underground pipes, conduits, cables, or other structures. The contractor shall indemnify the City and hold it harmless from any and all claims, demands or liability made or asserted by any person or entity on account of or in connection with any damage to such surface or underground facilities caused by the contractor or any of his agents or subcontractors.

*(b) Existing Utilities*

The plans for the work show the underground utilities on the site of the construction insofar as they are known to the City. The plans may not show facilities apparent from visual inspection of the site or service laterals or appurtenances, the existence of which can be inferred from the presence of other visible facilities such as buildings, meters, junction boxes, etc., on or adjacent to the construction site.

*(c) Relocation of Existing Utilities*

~~The contractor shall make all arrangements for and pay all costs connected with any necessary relocation of existing surface and underground utility facilities (including, without limitation, poles, guys, conduits, pipes, and mains) affecting the project or the work to be performed under these specifications.~~

The following utility companies are affected by this section:

Verizon  
520 South China Lake Boulevard  
Ridgecrest, California 93555  
Attn: Lewis Edrozo  
(661) 948-4829

Mediacom Cablevision  
543 Inyokern Road  
Ridgecrest, California 93555  
Attn: Anthony Sobieski  
(760) 590-8017

Indian Wells Valley Water District  
500 West Ridgecrest Boulevard  
P. O. Box 1329  
Ridgecrest, California 93555  
Attn: Les Kramer  
(760) 608-2863

Searles Valley Minerals  
13200 Main Street  
Trona, California 93562  
Attn: Don Zdeba  
(760) 372-2542

Pacific Gas and Electric  
530 South China Lake Boulevard  
Ridgecrest, California 93555  
Attn: Dominic Othart  
(661) 398-3956

Southern California Edison  
510 South China Lake Boulevard  
Ridgecrest, California 93555  
Attn: Dean Blackwell  
(760) 375-1815

(d) *Unidentified Existing Utilities*

If in the performance of the work an existing utility is encountered which is not shown on the plans and is not apparent or inferable from visual inspection of the site, the inspector shall be notified immediately. The Engineer will determine whether existing utility shall be relocated or whether the contractor shall work around the existing utility. The determination of the Engineer shall be incorporated in an appropriate Change Order for extra work pursuant to paragraph GC-65 - Payment of Extra, Additional, or Omitted Work.

**GC-19      *Cooperation of Contractor***

The contractor shall at all times have on the work site a copy of the plans and specifications and at all times while work is being actually carried on, he shall be upon the work site himself or have a competent person in charge who shall be authorized to receive and execute orders from the Engineer in matters pertaining to the performance of the contract.

**GC-20      *Plans to be Furnished by Contractor***

The contractor shall supply such working plans of devices or installations furnished and performed under this contract as are called for herein or are required by the Engineer to make clear the details of construction and of devices. Unless otherwise herein specified, such plans shall be submitted to the Engineer for his approval upon his request. Should any plans furnished by the contractor not be approved by the Engineer, the contractor shall make the revisions required and again submit them to the Engineer for approval.

After due approval by the Engineer, these plans shall become a part of this contract and the work shall be done in conformity therewith. No such work shall be begun or devices purchased until the plans covering it or them have been approved.

The contractors plans may be submitted for tentative approval before tracing and after approval of the finished tracings, three prints of each thereof shall be delivered to the Engineer. All plans furnished by the contractor shall be finished plans, neat, legible, to scale and to as large a scale as may be appropriate to clearly show the required data.

**GC-21      *Approval of Contractor's Plans and Liability***

Approval by the Engineer of any plans or any method of work proposed by the contractor shall not relieve the contractor of any of his responsibility for any errors therein and shall not be regarded as any assumption of risk or liability by the City or any officer or employee thereof, and the contractor shall have no claim under this contract on account of the failure or partial failure or inefficiency of any plan or method so approved. Such approval shall be considered to mean merely that the Engineer has no objection to the contractor's taking his own full responsibility for the plan or method that the contractor proposes.

**GC-22      *Use of Premises***

The contractor shall confine his apparatus, storage of materials, and construction operations to such limits as may be directed by the City, and shall not reasonably encumber the premises with his materials.

The contractor shall enforce any instructions of the City regarding signs, advertising, fires, danger signals, barricades, and smoking, and shall require all persons employed on the work site to comply with all building, posted, or institutional regulations while on the premises.

**GC-23      *Equipment***

The use of equipment which is obsolete as to type, in bad condition or worn out will not be permitted on the work. The contractor shall provide adequate and suitable equipment and plants to meet the requirements of the work, and when ordered by the Engineer shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants.

**GC-24      *Obstructions***

The contractor shall remove at his own cost all trees, stones, debris, and other obstructions that may be encountered in the execution of the work.

**GC-25      *Changed Conditions***

Should the contractor encounter, or the Engineer discover during the progress of the work, subsurface or latent conditions at the site or sites materially different from those shown on the plans or indicated in the specifications, the Engineer will promptly investigate the conditions, and if he finds that they materially differ from those shown on the plans or indicated in the specifications he will at once make such changes in the plans and/or specifications as he may find necessary.

**GC-26      *Existing Landscaping***

The contractor shall restore or cause to be restored at his expense all landscaped areas whether within public right-of-way, City acquired easements or City owned property which are disturbed, damaged, removed, or destroyed as a result of his work in carrying out any or all provisions of these specifications. Included within the scope of this requirement is the replacement of trees, lawn areas, ornamental gravel, shrubbery, walkways, walls, fences, curbs, and any other decorative plantings or structures so damaged, removed, or destroyed. The contractor shall be further responsible for the care, protection, staking, watering, and fertilizing of

such plantings until they have been established sufficiently to flourish under the owner's regular maintenance schedule.

Replacement shall be in kind, condition, type, color, and where practical size.

**GC-27     *Removal of Debris, Cleaning, Etc.***

The contractor shall as directed by the City during the progress of the work, remove and properly dispose of the resultant dirt and debris and keep the premises reasonably clear.

Upon completion of the work he shall remove all equipment and unused materials provided for the work, put the buildings and premises in a neat and clean condition and do all other cleaning and washing required by the specifications.

**GC-28     *Liquidated Damages and Extension of Time***

In case all work called for under the contract in all parts and requirements is not completed within the time as set forth in the Special Conditions, paragraph SC-4 - Commencement, Prosecution, and Completion of Work, damage will be sustained by the City for loss of use of the project. The contractor agrees that it is impractical to determine accurately the loss or damage sustained by the City and that the amount set forth as liquidated damages in the Special Conditions shall constitute compensation for such losses. The contractor further agrees to pay said liquidated damages as herein provided, and in case the same are not paid agrees that the City may deduct the amount thereof from any monies due or that may become due the contractor under the contract.

The contractor shall not be assessed with liquidated damages during any delay beyond the time named for the completion of the work caused by acts of God, public enemy, the City, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or delays of subcontractors due to such causes.

Should any delays occur which the Engineer may consider unavoidable as herein defined, the contractor shall, pursuant to his written application, be allowed an extension of time beyond the time herein set forth equal to said delay or delays in which to complete this contract. If an extension of time is not granted, the contractor shall be assessed with liquidated damages.

**GC-29     *Compensation to the City for Extension of Time***

In case the work called for under this contract is not completed within the time limit stipulated, the City shall have the right to extend the time of completion. If the time limit is so extended the City shall have the right to charge the contractor

and to deduct from the final payment for the work the actual cost to the City for the engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the contract and which accrue during the period of such extension, except that the cost of final surveys and preparation of final estimate and the costs accruing by reason of unavoidable delays shall not be included in such charges.

**GC-30    *General Guaranty***

Neither the final certificate of payment nor any provision in the contract nor partial or entire use of occupancy of the premises by the City shall constitute an acceptance of work not done in accordance with the contract or relieve the contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

The contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of one (1) year from the final acceptance of the work, unless a longer period is specified. The City will give notice of observed defects with reasonable promptness.

## ***Bonds and Insurance***

### **GC-31 *Contract Security***

The contractor shall furnish a surety bond in an amount equal to one hundred percent (100%) of the contract price as security for the faithful performance of this contract and shall furnish a separate bond in an amount at least equal to one hundred percent (100%) of the contract price as security for the payment of all persons performing labor and furnishing materials in connection with this contract. The aforesaid bonds shall be in form satisfactory to the City and with good and sufficient surety acceptable to the City.

### **GC-32 *Bondsmen's Waiver of Right to Notification***

The bondsmen shall have familiarized themselves with all conditions and provisions of these specifications, and they waive the right of special notification of any change or modification of this contract, of extension of time, of decreased or increased work, of the cancellation of the contract or of any other act or acts by the City or their authorized agents under the terms of this contract. Failure to so notify bondsmen of changes shall in no way relieve the bondsmen of their obligation under this contract.

### **GC-33 *Insurance***

- (a) In addition to such other insurance that may be required under this contract, the contractor shall provide adequate Workmen's Compensation Insurance for all employees employed under this contract on the project who may come within the protection of the Workmen's Compensation Laws.
- (b) The insurance required by this section shall be written for not less than the limits of liability specified in the contract documents or required by law, whichever coverage is greater. The insurance shall be purchased from a company or companies lawfully authorized to do business in the jurisdiction in which the project is located. Coverages shall be written on an occurrence basis without interruption from the date of commencement of the work until date of final payment and termination of any coverage required to be maintained after final payment. Certificates of insurance acceptable to the City shall be filed with the City in triplicate prior to the commencement of work by the contractor. If any of the insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final application for payment. Information concerning reduction of coverage shall be furnished by the

contractor with reasonable promptness in accordance with the contractor's information and belief.

- (c) The contractor shall be responsible for proper and adequate Workmen's Compensation coverage for all his subcontractor's operations, and in the event that the contractor's insurance does not cover each and every subcontractor, certificates of insurance issued on policies by companies that may be acceptable to the City covering each and every subcontractor shall be filed with the City prior to the commencement of such subcontract operations.
- (d) If the contractor has fully satisfied the City of his responsibility and capacity under the applicable Workmen's Compensation Laws, if any, to act as self-insurer, he may so act and in such a case the insurance required by Article (a) of this section need not be provided.
- (e) The contractor shall obtain insurance against loss by fire, earthquake or other hazards and, when required by the Special Conditions, shall furnish certificates of such insurance to the City.
- (f) In the event that the form of any policy or certificate, the amount of the insurance or the companies writing same are not satisfactory to the City, the contractor shall furnish other policies or certificates in form and amount, with companies satisfactory to the City. The contractor shall not cause any policy to be canceled, or permit it to lapse, and all policies shall include a clause to the effect that the policy or certificate shall not be subject to cancellation or to a reduction in the required limits of liability or amounts of insurance until notice has been mailed to the City not less than thirty (30) days thereafter stating when such cancellation or reduction shall be effective. All certificates of insurance, authenticated by the proper officer of the insurer, shall state in particular those insured, the extent of the insurance, the location and operations to which the insurance applies, the expiration date and the above mentioned notice of cancellation clause.

**GC-34     *Public Liability and Property Damage Insurance***

- (a) The contractor shall take out and maintain during the life of this contract such Public Liability and Property Damage Insurance as shall protect him and the City, and all officers, agents and employees of the City, from all claims for personal injury including accidental death as well as from all claims for property damage arising from operations under this contract. The amounts of such insurance shall be as hereinafter set forth.

- (b) The contractor shall require the subcontractors, if any, to take out and maintain similar Public Liability and Property Damage Insurance. The amounts of such insurance shall be as hereinafter set forth.
- (c) In case any of the work under this contract is to be performed on or at the site of the project by a subcontractor, the contractor shall also take out and maintain such Contingent or Protective Insurance and will protect him and the City and all officers, agents and employees of the City from damage claims arising from the operations of any subcontractor. The amounts of such insurance shall be as hereinafter set forth.
- (d) If any subcontractor shall subcontract any portion of his subcontract, the contractor shall require him to take out and maintain such Contingent or Protective Insurance as will protect such subcontractors from damage claims arising from the operations of the second subcontract. Such contingent or protective insurance shall be in the same amount as the primary subcontractor's insurance.
- (e) As above provided, the contractor shall take out and maintain:

For a contract bid of less than \$50,000:

Public Liability Insurance for injuries, including accidental death to any person, in an amount not less than	\$500,000
---	-----------

Subject to the same limit for each person on account of one accident in an amount not less than	\$500,000
---	-----------

For a contract bid of equal to or greater than \$50,000 and less than \$150,000:

Public Liability Insurance for injuries, including accidental death to any person, in an amount not less than	\$1,000,000
---	-------------

Subject to the same limit for each person on account of one accident in an amount not less than	\$1,000,000
---	-------------

For a contract bid equal to or greater than \$150,000 and less than \$250,000:

Public Liability Insurance for injuries, including accidental death to any person in an amount not less than \$1,500,000

Subject to the same limit for each person on account of one accident in an amount not less than \$1,500,000

For a contract bid equal to or greater than \$250,000:

Public Liability Insurance for injuries, including accidental death, in an amount not less than \$3,000,000

Subject to the same limit for each person on account of one accident in an amount not less than \$3,000,000

Property Damage Insurance in an amount not less than \$250,000

Contractor's Contingent or Protective Insurance for Public Liability and Property Damage in the amount not less than the respective amounts noted above.

- (f) As above provided, the contractor shall require all subcontractors, whether primary or secondary, to take out and maintain Public Liability and Property Damage Insurance in amounts not less than the following:

<i>Subcontracts</i>	<i>Public Liability Insurance</i>		<i>Property Damage Insurance</i>
	<i>Injury to 1 Person</i>	<i>Aggregate</i>	
Less than \$1,000	\$ 40,000	\$ 40,000	\$ 20,000
1,000 to 5,000	100,000	200,000	50,000
5,000 to 20,000	150,000	300,000	75,000
20,000 to 50,000	200,000	400,000	100,000
50,000 and above	1,000,000	2,000,000	200,000

- (g) *Indemnification* - The contractor shall indemnify and save the City, its officer, agents, and employees, free and harmless from any and all costs, damages, or liability, including attorney's fees, arising out of any act or

omission to act including any negligent act or omission to act of contractor, its officers, agents, subcontractors, and employees with respect to the performance of the work or of any of the contractor's obligations under this contract, except when such loss or damage was caused by the sole negligence or willful misconduct of the City, its officers, agents, or employees.

In addition to the foregoing, Contractor shall reimburse the City all costs, including attorney's fees, incurred by the City in handling, responding to, or litigating stop notice claims or other demands against funds due to the contractor or against the contractor's payment bond by contractor's officers, agents, or employees, including subcontractors.

- (h) *No Personal Liability* - Neither the Mayor, City Council, Engineer, nor any other officer or authorized assistant or agent shall be personally responsible for any liability arising under the contract.
- (i) *Responsibility of City* - The City of Ridgecrest shall not be held responsible for the care or protection of any materials or parts of the work prior to final acceptance, except as expressly provided in these specifications.
- (j) *Insurance Certificate* - All insurance certificates submitted shall name the City of Ridgecrest, its officers, agents, and employees as additional insured.

## ***Materials and Test***

### ***GC-35 Materials or Equal Clause***

Unless otherwise specifically provided in the specifications, all workmanship, equipment, materials, and articles incorporated in the work covered by this contract are to be of the best available grade of their respective kinds. Whenever in the specifications any material, article, device, product, fixture, form, type of construction, or process is indicated or specified by patent or proprietary name, by name of manufacturer or by catalog number, such specifications shall be deemed to be used for the purpose of establishing a standard of quality and facilitating the description of the material or process desired, and shall be deemed to be followed by the words "or equal". The Engineer shall be the sole judge as to the equality of the substituted article, but the burden of demonstrating equality and costs of any test required for this purpose shall be borne by the contractor.

### ***GC-36 Warranty of Title***

No material, supplies, or equipment for the work under this contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by 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 him to the City free from any claim, liens, or charges and further agrees that neither he nor any person, firm, or corporation furnishing any materials or labor for any work covered by this contract shall have any right to 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, the title of which is commonly retained by the utility company. In the event of the installation of any such metering device or equipment, the contractor shall advise the City as to the legal owner thereof. Nothing contained in this article 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 article 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.

### ***GC-37 Patents***

The contractor shall hold and save the City and its officers, agents, servants and employees harmless from liability of any nature or kind including all costs and

legal expense for or on account of any patented or unpatented inventions, 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.

**GC-38**      ***Protection of Materials and Work***

- (a) The contractor shall be responsible for all damages to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the contract.

The contractor shall be responsible for the proper care and protection of all materials delivered and the work performed until completion and final acceptance by the City. The contractor shall promptly comply with all reasonable requests of the City to enclose or specially protect such materials or work.

- (b) The contractor shall provide such heat, covering, and enclosure as are necessary to protect all work and materials against damage by weather conditions.
- (c) The contractor shall take adequate precautions to protect existing sidewalks, curbs, pavements, utilities, adjoining property, and structures, and to avoid damage thereto, and he shall be at his own expense completely to repair any damage thereto caused by his operations.
- (d) As required by law, the contractor shall shore up, brace, underpin, and protect as may be necessary all foundations and other parts of all existing structures adjacent to and adjoining the site of the project, which are in any way affected by the excavations or other operations connected with the completion of the work under this contract. Whenever any notice is required to be given by the City or the contractor to any adjoining or adjacent land owner or other party before commencement of any work under this contract, such notice shall be given by the contractor. The contractor shall indemnify the City and save it harmless from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the City may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- (e) In an emergency affecting the safety of life or property, including adjoining property, the contractor, without special instructions or authorization from the owner of such property, is authorized to act at his discretion to prevent

such threatened loss or injury and he shall so act if instructed to do so by the City.

**GC-39     *Defective Work and Materials***

No work which may be defective in its construction or deficient in any of the requirements of these specifications will be considered as accepted in consequence of the failure of any officer of the City to point out such defect or deficiency during construction and the contractor shall correct such imperfect work whenever discovered.

**GC-40     *Tests***

The cost of any inspections and tests of materials made by or at the request of the City shall be borne by the City.

Where such inspections and testing are to be conducted by an independent laboratory or agency, the sample or samples of materials to be tested shall be selected by such laboratory or agency or the City's representative and not by the contractor.

**GC-41     *Samples and Tests***

All materials shall be of the quality and fully equal to the samples when required.

All tests of materials furnished by the contractor shall be made by the Engineer in accordance with commonly recognized standards of national organizations. The contractor shall furnish such samples of all materials as are requested by the Engineer without charge. No material shall be used unless it has been approved by the Engineer.

***Prequalified and Tested Signing and Delineation Materials***

The Department maintains the following list of Prequalified and Tested Signing and Delineation Materials. The Engineer shall not be precluded from sampling and testing products on the list of Prequalified and Tested Signing and Delineation Materials.

The manufacturer of products on the list of Prequalified and Tested Signing and Delineation Materials shall furnish the Engineer a Certificate of Compliance in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for each type of traffic product supplied.

For those categories of materials included on the list of Prequalified and Tested Signing and Delineation Materials, only those products shown within the listing may be used in the work. Other categories of products, not included on the list of Prequalified and Tested Signing and Delineation Materials, may be used in the work provided they conform to the requirements of the Standard Specifications.

Materials and products may be added to the list of Prequalified and Tested Signing and Delineation Materials if the manufacturer submits a New Product Information Form to the New Product Coordinator at the Transportation Laboratory. Upon a Departmental request for samples, sufficient samples shall be submitted to permit performance of required tests. Approval of materials or products will depend upon compliance with the specifications and tests the Department may elect to perform.

#### PAVEMENT MARKERS, PERMANENT TYPE

##### Retroreflective With Abrasion Resistant Surface (ARS)

1. Apex, Model 921AR (4" x 4")
2. Ennis Paint, Models C88 (4" x 4"), 911 (4" x 4") and C80FH
3. Ray-O-Lite, Models "AA" ARC II (4" x 4") and ARC Round Shoulder (4" x 4")
4. 3M Series 290 (3.5" x 4")
5. 3M Series 290 PSA
6. Glowlite, Inc Model 988AR (4" x 4")

##### Retroreflective With Abrasion Resistant Surface (ARS)

(for recessed applications only)

1. Ennis Paint, Model 948 (2.3" x 4.7")
2. Ennis Paint, Model 944SB (2" x 4")\*
3. Ray-O-Lite, Model 2002 (2" x 4.6")
4. Ray-O-Lite, Model 2004 (2" x 4")\*

\*For use only in 4.5 inch wide (older) recessed slots

##### Non-Reflective, 4-inch Round

1. Apex Universal (Ceramic)
2. Apex Universal, Models 929 (ABS) and 929PP (Polypropylene)
3. Glowlite, Inc. (Ceramic) and PP (Polypropylene)
4. Hi-Way Safety, Inc., Models P20-2000W and 2001Y (ABS)
5. Interstate Sales, "Diamond Back" (Polypropylene)
6. Novabrite Models Cdot (White) Cdot-y (Yellow), Ceramic
7. Novabrite Models Pdot-w (White) Pdot-y (Yellow), Polypropylene
8. Three D Traffic Works TD10000 (ABS), TD10500 (Polypropylene)
9. Ray-O-Lite, Ray-O-Dot (Polypropylene)

#### PAVEMENT MARKERS, TEMPORARY TYPE

Temporary Markers For Long Term Day/Night Use (180 days or less)

1. Vega Molded Products "Temporary Road Marker" (3" x 4")
2. Pexco LLC, Halftrack model 25, 26 and 35

Temporary Markers For Short Term Day/Night Use (14 days or less)

(For seal coat or chip seal applications, clear protective covers are required)

1. Apex Universal, Model 932
2. Pexco LLC, Models T.O.M., T.R.P.M., and "HH" (High Heat)
3. Hi-Way Safety, Inc., Model 1280/1281
4. Glowlite, Inc., Model 932

#### STRIPING AND PAVEMENT MARKING MATERIAL

Permanent Traffic Striping and Pavement Marking Tape

1. Advanced Traffic Marking, Series 300 and 400
2. Brite-Line, Series 1000
3. Brite-Line, "DeltaLine XRP"
4. Swarco Industries, "Director 35" (For transverse application only)
5. Swarco Industries, "Director 60"
6. 3M, "Stamark" Series 380 and 270 ES
7. 3M, "Stamark" Series 420 (For transverse application only)

Temporary (Removable) Striping and Pavement Marking Tape (180 days or less)

1. Advanced Traffic Marking, Series 200
2. Brite-Line, Series 100
3. Garlock Rubber Technologies, Series 2000
4. P.B. Laminations, Aztec, Grade 102
5. Swarco Industries, "Director-2"
6. Trelleborg Industries, R140 Series
7. 3M Series 620 "CR", and Series 780
8. 3M Series A145, Removable Black Line Mask  
(Black Tape: for use only on Hot mix asphalt surfaces)
9. Advanced Traffic Marking Black "Hide-A-Line"  
(Black Tape: for use only on Hot mix asphalt surfaces)
10. Brite-Line "BTR" Black Removable Tape  
(Black Tape: for use only on Hot mix asphalt surfaces)
11. Trelleborg Industries, RB-140  
(Black Tape: for use only on Hot mix asphalt surfaces)

Preformed Thermoplastic (Heated in place)

1. Flint Trading Inc., "Hot Tape"
2. Flint Trading Inc., "Premark Plus"
3. Ennis Paint Inc., "Flametape"

Ceramic Surfacing Laminate, 6" x 6"

1. Highway Ceramics, Inc.

## CLASS 1 DELINEATORS

### One Piece Driveable Flexible Type, 66-inch

1. Pexco LLC, "Flexi-Guide Models 400 and 566"
2. Carsonite, Curve-Flex CFRM-400
3. Carsonite, Roadmarker CRM-375
4. FlexStake, Model 654 TM
5. GreenLine Model CGD1-66

### Special Use Type, 66-inch

1. Pexco LLC, Model FG 560 (with 18-inch U-Channel base)
2. Carsonite, "Survivor" (with 18-inch U-Channel base)
3. Carsonite, Roadmarker CRM-375 (with 18-inch U-Channel base)
4. FlexStake, Model 604
5. GreenLine Model CGD (with 18-inch U-Channel base)
6. Impact Recovery Model D36, with #105 Driveable Base
7. Safe-Hit with 8-inch pavement anchor (SH248-GP1)
8. Safe-Hit with 15-inch soil anchor (SH248-GP2) and with 18-inch soil anchor (SH248-GP3)
9. Safe-Hit RT 360 Post with Soil Mount Anchor (GPS)
10. Shur-Tite Products, Shur-Flex Drivable

### Surface Mount Type, 48-inch

1. Bent Manufacturing Company, Masterflex Model MFEX 180-48
2. Carsonite, "Channelizer"
3. FlexStake, Models 704, 754 TM, and EB4
4. Impact Recovery Model D48, with #101 Fixed (Surface-Mount) Base
5. Three D Traffic Works "Channelflex" ID No. 522248W
6. Flexible Marker Support, Flexistiff Model C-9484
7. Safe-Hit, SH 248 SMR

## CHANNELIZERS

### Surface Mount Type, 36-inch

1. Bent Manufacturing Company, Masterflex Models MF-360-36 (Round) MF-180-36 (Flat) and MFEX 180-36
2. Pexco LLC, Flexi-Guide Models FG300PE, FG300UR, and FG300EFX
3. Carsonite, "Super Duck" (Round SDR-336)
4. Carsonite, Model SDCF03601MB "Channelizer"
5. FlexStake, Models 703, 753 TM, and EB3
6. GreenLine, Model SMD-36
7. Hi-way Safety, Inc. "Channel Guide Channelizer" Model CGC36
8. Impact Recovery Model D36, with #101 Fixed (Surface-Mount) Base
9. Safe-Hit, Guide Post, Model SH236SMA and Dura-Post, Model SHL36SMA

10. Three D Traffic Works "Boomerang" 5200 Series
11. Flexible Marker Support, Flexistiff Model C-9484-36
12. Shur-Tite Products, Shur-Flex

#### Lane Separation System

1. Pexco LLC, "Flexi-Guide (FG) 300 Curb System"
2. Qwick Kurb, "Klemmfix Guide System"
3. Dura-Curb System
4. Tuff Curb
5. FG 300 Turnpike Curb

#### CONICAL DELINEATORS, 42-inch

(For 28-inch Traffic Cones, see Standard Specifications)

1. Bent Manufacturing Company "T-Top"
2. Plastic Safety Systems "Navigator-42"
3. TrafFix Devices "Grabber"
4. Three D Traffic Works "Ringtop" TD7000, ID No. 742143
5. Three D Traffic Works, TD7500
6. Work Area Protection Corp. C-42

#### OBJECT MARKERS

Type "K", 18-inch

1. Pexco LLC, Model FG318PE
2. Carsonite, Model SMD 615
3. FlexStake, Model 701 KM
4. Safe-Hit, Model SH718SMA

Type "Q" Object Markers, 24-inch

1. Bent Manufacturing "Masterflex" Model MF-360-24
2. Pexco LLC, Model FG324PE
3. Carsonite, "Channelizer"
4. FlexStake, Model 701KM
5. Safe-Hit, Models SH824SMA\_WA and SH824GP3\_WA
6. Three D Traffic Works ID No. 531702W and TD 5200
7. Three D Traffic Works ID No. 520896W
8. Safe-Hit, Dura-Post SHLQ-24 inch

#### CONCRETE BARRIER MARKERS AND TEMPORARY RAILING (TYPE K) REFLECTORS

Impactable Type

1. ARTUK, "FB"
2. Pexco LLC, Models PCBM-12 and PCBM-T12
3. Duraflex Corp., "Flexx 2020" and "Electriflexx"
4. Hi-Way Safety, Inc., Model GMKRM100
5. Plastic Safety Systems "BAM" Models OM-BARR and OM-BWAR

6. Three D Traffic Works "Roadguide" Model TD 9300

#### Non-Impactable Type

1. ARTUK, JD Series
2. Plastic Safety Systems "BAM" Models OM-BITARW and OM-BITARA
3. Vega Molded Products, Models GBM and JD
4. Plastic Vacuum Forming, "Cap-It C400"

#### METAL BEAM GUARD RAIL POST MARKERS

(For use to the left of traffic)

1. Pexco LLC, "Mini" (3" x 10")
2. Creative Building Products, "Dura-Bull, Model 11201"
3. Duraflex Corp., "Railrider"
4. Plastic Vacuum Forming, "Cap-It C300"

#### CONCRETE BARRIER DELINEATORS, 16-inch

(For use to the right of traffic)

1. Pexco LLC, Model PCBM T-16
2. Safe-Hit, Model SH216RBM
3. Three D Traffic Works "Roadguide" Model 9400

#### CONCRETE BARRIER-MOUNTED MINI-DRUM (10" x 14" x 22")

1. Stinson Equipment Company "SaddleMarker"

#### GUARD RAILING DELINEATOR

(Place top of reflective element at 48 inches above plane of roadway)

Wood Post Type, 27-inch

1. Pexco LLC, FG 427 and FG 527
2. Carsonite, Model 427
3. FlexStake, Model 102 GR
4. GreenLine GRD 27
5. Safe-Hit, Model SH227GRD
6. Three D Traffic Works "Guardflex" TD9100
7. New Directions Mfg, NDM27
8. Shur-Tite Products, Shur-Tite Flat Mount

Steel Post Type

1. Carsonite, Model CFGR-327

#### RETROREFLECTIVE SHEETING

Channelizers, Barrier Markers, and Delineators

1. Avery Dennison T-6500 Series (For rigid substrate devices only)
2. Avery Dennison WR-7100 Series
3. Nippon Carbide Industries, Flexible Ultralite Grade (ULG) II
4. Reflexite, PC-1000 Metalized Polycarbonate

5. Reflexite, AC-1000 Acrylic
6. Reflexite, AP-1000 Metalized Polyester
7. Reflexite, Conformalight, AR-1000 Abrasion Resistant Coating
8. 3M, High Intensity

Traffic Cones, 4-inch and 6-inch Sleeves

1. Nippon Carbide Industries, Flexible Ultralite Grade (ULG) II
2. Reflexite, Vinyl, "TR" (Semi-transparent) or "Conformalight"
3. 3M Series 3840
4. Avery Dennison S-9000C

Drums

1. Avery Dennison WR-6100
2. Nippon Carbide Industries, Flexible Ultralite Grade (ULG) II
3. Reflexite, "Conformalight", "Super High Intensity" or "High Impact Drum Sheeting"
4. 3M Series 3810

Barricades: Type I, Medium-Intensity (Typically Enclosed Lens, Glass-Bead Element)

1. Nippon Carbide Industries, CN8117
2. Avery Dennison, W 1100 series
3. 3M Series CW 44

Barricades: Type II, Medium-High-Intensity (Typically Enclosed Lens, Glass-Bead Element)

1. Avery Dennison, W-2100 Series

Vertical Clearance Signs: Structure Mounted

1. 3M Model 4061, Diamond Grade DG3, Fluorescent Yellow

Signs: Type II, Medium-High-Intensity (Typically Enclosed Lens, Glass-Bead Element)

1. Avery Dennison, T-2500 Series
2. Nippon Carbide Industries, Nikkalite 18000

Signs: Type III, High-Intensity (Typically Encapsulated Glass-Bead Element)

1. Avery Dennison, T-5500A and T-6500 Series
2. Nippon Carbide Industries, Nikkalite Brand Ultralite Grade II
3. 3M 3870 and 3930 Series

Signs: Type IV, High-Intensity (Typically Unmetalized Microprismatic Element)

1. Avery Dennison, T-6500 Series
2. Nippon Carbide Industries, Crystal Grade, 94000 Series
3. Nippon Carbide Industries, Model No. 94847 Fluorescent Orange

4. 3M Series 3930 and Series 3924S

Signs: Type VI, Elastomeric (Roll-Up) High-Intensity, without Adhesive

1. Avery Dennison, WU-6014
2. Novabrite LLC, "Econobrite"
3. Reflexite "Vinyl"
4. Reflexite "SuperBright"
5. Reflexite "Marathon"
6. 3M Series RS20

Signs: Type VII, Super-High-Intensity (Typically Unmetallized Microprismatic Element)

1. 3M Series 3924S, Fluorescent Orange
2. 3M LDP Series 3970

49

Signs: Type VIII, Super-High-Intensity (Typically Unmetallized Microprismatic Element)

1. Avery Dennison, T-7500 Series
2. Avery Dennison, T-7511 Fluorescent Yellow
3. Avery Dennison, T-7513 Fluorescent Yellow Green
4. Avery Dennison, W-7514 Fluorescent Orange
5. Nippon Carbide Industries, Nikkalite Crystal Grade Series 92800
6. Nippon Carbide Industries, Nikkalite Crystal Grade Model 92847 Fluorescent Orange

Signs: Type IX, Very-High-Intensity (Typically Unmetallized Microprismatic Element)

1. 3M VIP Series 3981 Diamond Grade Fluorescent Yellow
2. 3M VIP Series 3983 Diamond Grade Fluorescent Yellow/Green
3. 3M VIP Series 3990 Diamond Grade
4. Avery Dennison T-9500 Series
5. Avery Dennison, T9513, Fluorescent Yellow Green
6. Avery Dennison, W9514, Fluorescent Orange
7. Avery Dennison, T-9511 Fluorescent Yellow

#### SPECIALTY SIGNS

1. Reflexite "Endurance" Work Zone Sign (with Semi-Rigid Plastic Substrate)

#### ALTERNATIVE SIGN SUBSTRATES

Fiberglass Reinforced Plastic (FRP) and Expanded Foam PVC

1. Fiber-Brite (FRP)
2. Sequentia, "Polyplate" (FRP)
3. Inteplast Group "InteCel" (0.5 inch for Post-Mounted CZ Signs, 48-inch or less)(PVC)

Aluminum Composite, Temporary Construction Signs and Permanent Signs up to 4 foot, 7 Inches

1. Alcan Composites "Dibond Material, 80 mils"
2. Mitsubishi Chemical America, Alpolic 350
3. Bone Safety Signs, Bone Light ACM (temporary construction signs only)

### **Portland Cement Concrete**

Portland cement concrete shall conform to the provisions in Section 90, "Portland Cement Concrete," of the Standard Specifications and these special provisions.

#### **STRENGTH DEVELOPMENT TIME**

The time allowed to obtain the minimum required compressive strength as specified in Section 90-1.01, "Description," of the Standard Specifications will be 56 days when the Contractor chooses cementitious material that satisfies the following equation:

$$\frac{(41 \times UF) + (19 \times F) + (11 \times SL)}{TC} \geq 7.0$$

Where:

- F = Fly ash or natural pozzolan conforming to the requirements in AASHTO Designation: M 295, Class F or N, including the amount in blended cement, pounds per cubic yard.
- SL = GGBFS, including the amount in blended cement, pounds per cubic yard
- UF = Silica fume, metakaolin, or UFFA, including the amount in blended cement, pounds per cubic yard
- TC = Total amount of cementitious material used, pounds per cubic yard

For concrete satisfying the equation above, the Contractor shall test for the modulus of rupture or compressive strength specified for the concrete involved, at least once every 500 cubic yards, at 28, 42, and 56 days. The Contractor shall submit test results to the Engineer and the Transportation Laboratory, Attention: Office of Concrete Materials.

#### **SUPPLEMENTARY CEMENTITIOUS MATERIALS**

The Contractor may use rice hull ash as a supplementary cementitious material (SCM) to make minor concrete. Rice hull ash shall conform to the requirements in AASHTO Designation: M 321 and the following chemical and physical requirements:

Chemical Requirements	Percent
Silicon Dioxide (SiO <sub>2</sub> ) <sup>a</sup>	90 min.
Loss on ignition	5.0 max.
Total Alkalies (as Na <sub>2</sub> O) equivalent	3.0 max.

Physical Requirements	Percent
Particle size distribution	
Less than 45 microns	95
Less than 10 microns	50
Strength Activity Index with portland cement <sup>b</sup>	
7 days	95 (minimum % of control)
28 days	110 (minimum % of control)
Expansion at 16 days when testing job materials in conformance with ASTM C 1567 <sup>c</sup>	0.10 max.
Surface Area when testing by nitrogen adsorption in conformance with ASTM D 5604	40.0 m <sup>2</sup> /g min.

Notes:

<sup>a</sup> A maximum of 1.0% of the SiO<sub>2</sub> may exist in crystalline form.

<sup>b</sup> When tested in conformance with the requirements for strength activity testing of silica fume in AASHTO Designation: M 307

<sup>c</sup> In the test mix, Type II or Type V portland cement shall be replaced with at least 12% RHA by weight.

## ***Wages, Employment, and Labor***

### ***GC-42 Wage Scales***

The copy of wage scales on file in the City Clerk's office, based on an eight (8) hour day, forty (40) hour week, except as otherwise noted, has been regularly adopted by the City by resolution determining the prevailing rate of per diem wages in the locality in which the public work herein provided is to be done for each craft or type of workman needed to execute the contract, said copy of which wage scale is hereby referred to and made a part hereof.

There shall be paid to each laborer or mechanic of the contractor or subcontractor engaged in work on the project under this contract in the trade or occupation listed in the Wage Schedule referred to and made a part of this contract, not less than the wage rate set opposite each trade or occupation listed therein regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and their laborers or mechanics.

Any laborer or mechanic employed to perform work on the project under this contract, which work is not covered by any of the classifications listed in the Wage Schedule shall be paid not less than the minimum rate of wages specified herein for the classification which most nearly corresponds to the work to be performed by him.

The wage rates specified in the Wage Schedule are minimum rates only and the City will not consider any claims for additional compensation made by the contractor because of payment by the Contractor of any wage rate in excess of the applicable rate contained in this contract. All disputes in regard to the payment of wages in excess of those specified in this contract shall be adjusted by the contractor.

Except as may otherwise be required by law, all claims and disputes pertaining to the classification of labor employed on the project under this contract shall be decided by the City.

Nothing contained herein shall be deemed as superseding any applicable laws, orders, or regulations issued by competent authority governing wages, hours of work or the employment of labor, nor as condoning any violation of such laws, orders or regulations.

### ***GC-43 Forfeiture of Wage Underpayments***

The contractor shall comply with the provisions of California Labor Code Section 1775 and shall forfeit to the City **FIVE HUNDRED DOLLARS (\$500.00)** for

each calendar day or portion thereof for each workman paid less than the stipulated prevailing rates for any work done under this contract by him or by any subcontractor. The City shall withhold amounts so forfeited pursuant to Section 1727 of the California Labor Code.

**GC-44**     ***Apprentices***

The minimum wage rates, if any, specified in this contract for apprentices shall apply only to persons working with the tools of the trade they are learning under the direct supervision of journeymen mechanics. Except as otherwise required by law, the ratio of apprentices to journeymen in each trade or occupation employed by the contractor or subcontractor shall not exceed the ratio determined in the apprenticeship agreements entered into under Chapter 4, Division 3 of the Labor Code, or in the absence of such agreements, the ratio shall not exceed one (1) apprentice to each five (5) journeymen regularly employed by the contractor.

Attention is directed to the provisions in Sections 1777.5 (Chapter 1411, Statutes of 1963) and 1777.6 of the Labor Code concerning the employment of apprentices by the contractor or any subcontractor under him.

Section 1777.5, as amended, requires the contractor or subcontractor employing tradesmen in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project and which administers the apprenticeship program in that trade for a certificate of approval. The certificate will also fix the ratio of apprentices to journeymen that will be used in the performance of the contract. The ratio of apprentices to journeymen in such cases shall not be less than one (1) to five (5) except:

- (a) When employment in the area of coverage by the joint apprenticeship committee has exceeded an average of fifteen percent (15%) in the ninety (90) days prior to the request for the certificate; or
- (b) When the number of apprentices in training in the area exceeds a ratio of one (1) to five (5); or
- (c) When the trade can show that it is replacing at least one thirtieth (1/30) of its membership through apprenticeship training on an annual basis statewide or locally; or
- (d) When the contractor provides evidence that he employs registered apprentices on all of his contracts on an annual average of not less than one (1) apprentice to eight (8) journeymen.

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

The contractor and subcontractor under him shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

**GC-45      *Qualification for Employment***

No person under the age of sixteen (16) years shall be employed on the project under this contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the project under this contract, provided that this shall not operate against the employment of physically handicapped persons otherwise employable, where such persons may be safely assigned to work which they can ably perform. No person currently serving sentence in a penal or correctional institution and no inmate of an institution for mental defectives shall be employed on the project under this contract.

**GC-46      *Nondiscrimination***

There shall be no discrimination by reason of race, religious creed, color, national origin, ancestry, physical handicap, medical conditions, marital status, sex, age, or political affiliations in the employment of persons qualified by training and experience for work on the project under this contract.

**GC-47      *Collective Bargaining***

The legal rights of all workers on the project to organize and to bargain collectively, to be protected from the requirements to join a company union and to enjoy freedom of expression and action with respect to wages, hours, and conditions of labor shall not be infringed.

**GC-48     *Accident Prevention***

Precaution shall be exercised at all times for the protection of persons (including employees) and property, and hazardous conditions shall be guarded against or eliminated.

**GC-49     *Sanitary Facilities***

The contractor shall provide and maintain at his own expense sufficient chemical sanitary toilets or other approved sanitary toilets for the use of his employees. These facilities shall conform to all requirements of the Health Department having jurisdiction.

## ***Engineering Plans and Specifications***

### ***GC-50 Authority of the Engineer***

The Engineer shall decide any and all questions which may arise as to the quality and acceptability of the work performed, the quality and acceptability of materials furnished, and the manner of performance and rate of progress of the work. He shall decide all questions which may arise as to the interpretation of the plans and specifications and all questions as to the acceptable fulfillment of the contract on the part of the contractor and as to compensation. His decisions shall be final and he shall have authority to enforce and make effective such decisions and orders as the contractor fails to promptly carry out.

### ***GC-51 Inspection***

The City and its authorized representative shall at all times have access to all parts of the work and to the shops wherein the work is in preparation for the purpose of inspection, and the contractor shall at all times maintain proper facilities and provide safe access for such inspection. All work done and all materials furnished shall be subject to the inspection of the Engineer.

All work done under this contract will be subject to rigid inspection. The Engineer shall have access to all parts of the work at all times. Work or material that does not conform to the specifications may be rejected at any stage of the work. The contractor shall remove and rebuild at his own expense any part of the work that has been improperly executed.

Should it be considered necessary or advisable by the Engineer at any time before final acceptance of the entire work to make an examination of work already completed by removing or tearing out any portion thereof, the contractor shall on request promptly furnish all necessary facilities, labor, and materials. If such work is found to be defective in any respect due to the fault of the contractor or his subcontractor he shall defray all the expenses of such examinations and of satisfactory reconstruction. If however, such work is found to meet the requirements of the contract, the additional cost of labor, materials, and equipment necessarily involved in such examination and replacement plus fifteen percent (15%) for overhead and profit shall be allowed the contractor. The Engineer's determination shall be final.

Where the specifications require work to be specifically tested or approved it shall not be tested or covered without timely notice to the City of its readiness for inspection. If said work is covered without the approval or consent of the City, it must, if required by the City, be uncovered for examination at the contractor's expense.

### ***GC-52 Interpretation of Specifications***

Should any discrepancy appear or any misunderstanding arise as to the import of anything contained in the specifications or plans, the matter shall be referred to the Engineer, who shall decide the true intent and meaning as construed by him and his decision shall be binding on the contractor. Suitable instructions will be given or corrections made when any such error is discovered. In case of discrepancy or conflict between the general provisions and special conditions, the special conditions shall govern.

### ***GC-53 Conflict, Omission, Etc., in Specifications and Plans***

Anything mentioned in the specifications and not shown on the plans or shown on the plans and not mentioned in the specifications shall be of like effect as if shown or mentioned in both. In case of difference between plans and specifications, if the true intent is not obvious it shall be determined by the Engineer as provided in paragraph GC-52 of these specifications. Omissions from the plans or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the plans and specifications, or which are customarily performed shall not relieve the contractor from performing such omitted or misdescribed details of the work. They shall be performed as if fully and correctly set forth and described in the plans and specifications.

### ***GC-54 Checking of Plans***

The contractor shall check all plans furnished him immediately upon their receipt and shall promptly notify the Engineer of any discrepancies. Figures shown on the plans shall in general be followed in preference to scale measurements. Large scale plans shall in general govern over small scale plans. The contractor shall compare all plans and verify the figures before laying out the work, and shall be responsible for any errors which might have been avoided by such comparison.

### ***GC-55 Deviations from Specifications and Plans***

Deviations from plans and from the dimensions therein given whether or not error is believed to exist, shall be made only as directed or approved by the Engineer.

### ***GC-56 Specifications, Plans, Etc. are Parts of Contract***

These specifications, the plans furnished with the specifications, plans that may be furnished as the work progresses, the information for bidders hereto attached, the proposal submitted by the contractor for doing the work, and furnishing said materials are all made parts of the contract.

### ***GC-57 Datum for Elevations***

Unless otherwise designated on the plans, all elevations shown on the plans represent plumb distances in feet and decimals thereof or below mean sea level as established by the United States Coast and Geodetic Survey and adopted as their datum for first order bench marks. All elevations shown on the plans represent plumb distances above said datum.

### ***GC-58 Stakes and Marks***

The work will be staked out by the Engineer and the contractor shall preserve said stakes and marks. If other stakes and marks are required, the contractor shall give notice of such requirement at least twenty-four (24) hours in advance. The contractor shall dig all holes required for the setting of stakes and shall bear all expenses of resetting stakes. In the event that the stakes and marks are destroyed through carelessness on the part of the contractor and the destruction of these marks causes a delay in the work, the contractor shall have no claim for damages or extension of time.

### ***GC-59 Monuments***

The contractor shall not disturb any monuments or stakes on the line of the work without instructions from the Engineer, and the contractor shall bear all expense of resetting same.

## ***Quantities and Payments***

### **GC-60     *Estimate of Quantities***

The quantities given in the proposal, bid forms, contract forms, legal documents, or the Notice to Contractors are approximate only, being given for the purpose of comparison of bids and/or fixing the amount of bonds, and the City does not, expressly or by implication, agree that the actual work will correspond therewith (any error or mistake either of commission or omission shall be the responsibility of the contractor) but reserves the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary or advisable and the contractor shall not be entitled to any claim for damage or loss of anticipated profit.

### **GC-61     *Payments Based on Actual Quantities Installed***

The quantities stated are approximate only and are subject to either increase or decrease and are stated only for the purpose of comparing bids and fixing the amount of surety bonds. Should the quantities of any of the items be increased, the bidder shall perform the additional work at the unit prices set out in his bid, and should the quantities be decreased, payment will be made on actual quantities installed at such unit prices and the bidder shall make no claim for anticipated profits or additional compensation for any increase or decrease in the quantities. Actual quantities will be determined upon the completion of the work covered by the contract.

### **GC-62     *Measurement and Basis for Payment***

All work completed under the contract will be measured by the Engineer in accordance with the provisions hereinafter set forth and the contractor agrees to accept the compensation as provided in the agreement as full payment for furnishing materials, labor, tools, processes, and equipment necessary to complete the work and for performing all work completed and embraced under the contract.

### **GC-63     *Payments to Contractor***

- (a)     Payments will be made by the City to the contractor on itemized estimates duly certified and approved by the Engineer based on labor and materials incorporated into said work during the preceding month by the contractor. The City shall retain ten percent (10%) of the amount of each of such estimate.
- (b)     In preparing estimates, ninety percent (90%) of the material delivered on the site and preparatory work done may be taken into consideration.

- (c) Upon receipt of a payment application, the City shall:
- (1) Review the application as soon as practicable after receipt for the purposes of determining that the payment application is a proper payment application.
  - (2) Return any payment application determined not to be a proper payment application suitable for payment within seven (7) days after receipt. A application returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment application is not proper.

If the City fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted payment application from contractor, the City shall pay to the contractor interest equivalent to the legal rate set forth in Subdivision (a) of Section 685.101 of the Code of Civil Procedure. The number of days available to the local agency to make a payment without incurring interest shall be reduced by the number of days by which the local agency exceeds the seven (7) day return requirement as set forth in the previous paragraph.

- (d) The making of any payment to the contractor under this contract shall not relieve the contractor of his obligations hereunder. The contractor is obligated to complete the contract in its entirety and to deliver to the City such completed work, finished product, or structure as is specified in the contract. Until this contract is fully performed by the contractor, and the work, product or structure produced thereby is accepted by the City, the contractor shall be obligated to repair, replace, restore, or rebuild any fully or partially completed work or structure, or any materials or equipment required to be provided under the contract which may be damaged, lost, stolen, or otherwise injured in any way.
- (e) The contractor shall notify the Engineer in writing of the completion of the work. The completion date, for purposes of computing "Time for Completion" and liquidated damages, if any, will be considered to be the date of the contractor's first written Notice of Completion provided that in the Engineer's judgment, the work is substantially complete and operational at that time.
- (f) Within sixty (60) days after the date of completion of the work of improvement, the retention withheld by the City shall be released. In the event of a dispute between the City and the original contractor, the City may withhold from the final payment an amount not to exceed one hundred

fifty percent (150%) of the disputed amount. For purposes of this section, "completion" means any of the following:

- (1) The occupation, beneficial use, and enjoyment of a work of improvement, excluding any operation only for testing, startup, or commissioning, by the City, or its agent, accompanied by cessation of labor on the work of improvement.
- (2) The acceptance by the City, or its agents, of the work of improvement.
- (3) After the commencement of a work of improvement, a cessation of labor on the work of improvement for a continuous period of one hundred (100) days or more, due to factors beyond the control of the contractor.
- (4) After the commencement of a work of improvement, a cessation of labor on the work of improvement for a continuous period of thirty (30) days or more, if the City files for record a notice of cessation or a notice of completion.

**GC-64     *City's Right to Withhold Amounts***

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:

- (a) Payments which may be past due and payable for just claims against the contractor or any subcontractor for labor or materials furnished for the performance of this contract.
- (b) For defective work not remedied.
- (c) For failure of the contractor to make proper payments to his subcontractors.

The City, at its discretion, may apply such withheld amount or amounts to the payments of such claims. In so doing the City shall be deemed the agent of the contractor and any payment so made by the City shall be considered as a payment made under the contract by the City to the contractor and the City shall not be liable to the contractor for such payment made in good faith. Such payment may be made without prior judicial determination of the claim or claims. The City will render to the contractor a proper accounting of such funds disbursed on behalf of the contractor.

**GC-65**     ***Payment of Extra, Additional, or Omitted Work***

The Engineer may, without notice to the Surety on the contractor's bond, make changes (a) in the designs of materials or machinery, or (b) in the quantities or character of the work or material required. The changes in plans for installation or construction may also include (a) modification of shapes and dimensions of aqueducts, dams, and other structures, and (b) the shifting of locations to suit conditions disclosed as work progresses. All changes authorized by the Engineer under the provisions of this paragraph shall be in writing, otherwise the City shall not pay for any increased cost resulting from said change. Extra work or material shall be paid for as hereinafter provided.

In connection with the work covered by the contract, the Engineer may at any time during the progress of the work, order work or material not covered by the specifications. Such work or material will be classified as extra work and will be ordered in writing. No extra work or material will be paid for unless ordered in writing.

Increases or decreases in the quantity of a contract item of work will be determined by comparing the total pay quantity of such item of work with the Engineer's Estimate therefor. If the total pay quantity of any item of work required under the contract varies from the Engineer's Estimate therefor by twenty five percent (25%) or less, payment will be made for the quantity of work of said item performed at the contract unit price therefor.

Extra work or material, in excess of one hundred twenty five percent (125%) of the Engineer's Estimate, shall be paid for at lump sum and/or unit prices agreeable to the Engineer or if no agreement is possible the charges will be on the basis of actual necessary costs as determined by the Engineer plus fifteen percent (15%) for profit, superintendence, and general expenses. The actual necessary cost will include all reasonable expenditures for materials, labor, and supplies furnished by the contractor, and a reasonable allowance for the use of equipment where required but will in no case include any allowance for office expenses, general superintendence, or other general expense.

Should the total pay quantity of any item of work required under the contract be less than seventy five percent (75%) of the Engineer's Estimate therefor, the quantity of said item performed will be paid for by adjusting the contract unit price, or at the option of the Engineer, payment for the quantity of the work of such item performed will be made on the basis of extra work as herein provided. The payment for the total pay quantity of such item of work will in no case exceed the payment which would be made for the performance of seventy five percent (75%) of the Engineer's Estimate of the quantity for such item at the original contract unit price.

At the end of each month the contractor shall present in writing any claims for extra work performed during that month and extra material delivered during that month and when requested by the Engineer shall furnish itemized statements of the cost and shall permit examination of accounts, bills, and vouchers relating thereto. No such claim will be allowed which is not presented to the Engineer in writing within thirty (30) days after the close of the month during which the extra work or material covered by such claim is alleged to have been furnished and any such claim not so presented will be deemed to have been waived by the contractor.

**GC-66      *Costs to the Contractor***

- (a) It is understood that, except as otherwise specifically stated in the contract, the contractor shall provide and pay for all materials including all taxes or duties levied thereon, labor, tools, equipment, water, light, power, transportation, superintendence, insurance, bonds, and temporary construction of every nature whatsoever necessary to execute and complete the contract within the specified time.
- (b) Any work necessary to be performed after regular working hours, on Saturdays, Sundays, or legal holidays, shall be performed without additional expense to the City. The City will charge the contractor for additional inspection and engineering costs incurred as a result of this extra time worked.
- (c) The contractor shall at his own expense construct such roadways, embankments, shoring, temporary supports, and falsework as may be required for proper prosecution of the work under this contract.
- (d) Whenever in the opinion of the City there shall arise outside of the regular working hours an emergency involving service to the public or danger to public safety as the result of operations by the contractor, such emergency work shall be performed by the City and its cost borne by the contractor. The performance of such emergency work by City forces will not relieve the contractor of any of his responsibilities, obligations, or liabilities under the contract. Charges assessed by the City will be deducted from the next earnings payment due the contractor.

**GC-67      *Withheld Contract Funds***

The contractor may, at his sole cost and expense, substitute securities for any monies which would otherwise be withheld by the City to insure performance under the contract. Such securities shall be deposited with the Agency or with a state or federally chartered bank as escrow agent who shall pay such monies to the

contractor upon satisfactory completion of the contract. The contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon. Securities eligible for investment under this section shall include those listed in Government Code Section 16430 or Bank/Savings and Loan Certificates of Deposit. In order to substitute securities, the contractor shall enter into an agreement with the City entitled "Agreement Concerning Investment of Funds" as attached to the contract.

***SECTION III: SPECIAL CONDITIONS***

**SC-1 Requirements**

These conditions detail the requirements for the reconstruction of " W. Ridgecrest Boulevard; China Lake Boulevard to North Mahan Street" in the City of Ridgecrest. The work involves roadway widening, pavement reconstruction, traffic signal installation, street lighting, corridor landscaping, and miscellaneous concrete work-all as shown on the plans and as required to fulfill the intent of these specifications.

**SC-2 Plans**

The plans show the location of the work, its nature, extent, and other requirements in connection with the proposed construction.

**SC-3 Bidding and Contract Schedule**

Bids will be accepted until **4:00 p.m. on \_\_\_\_\_, 2010**. A bid will be accepted or all bids rejected within **sixty (60) calendar** days after the bid opening. The contract shall be signed and bonds furnished within fifteen (15) calendar days after Notice of Award to the contractor by the City.

**SC-4 Commencement, Prosecution, and Completion of Work**

The work covered by these specifications shall be completed within two hundred ten (210) calendar days. Time extensions may be granted under provisions of paragraphs GC-28, GC-29, and SC-5. This working period includes what is considered to be sufficient time for the contractor to obtain materials for the job. Whenever in the opinion of the City there shall arise outside of regular working hours on the contract an emergency involving service to the public or danger to the public safety, the City's forces will handle such emergency work. If such emergency arises or is the result of operations by the contractor, cost of corrective measures will be billed to the contractor as provided in paragraph SC-6. The performance of such emergency work by City forces will not relieve the contractor of any of his obligations or liabilities under the contract. Work shall be continued at all times by the contractor with such force and equipment as will be sufficient in the judgment of the Engineer to complete it within the specified time

**SC-5 Failure to Complete Work Within Specified Time**

Should the contractor fail to complete the work within the specified time designated in paragraph SC-4, plus extra time as may have been allowed for delays by formal extension granted by the City, a deduction of **five thousand dollars (\$5000.00)** per day will be made upon payments by the City to the contractor hereunder for each and every calendar day that the work remains incomplete after the date set for its completion.

**SC-6      *Contract Payments***

Progress payments will be made in accordance with paragraph GC-63. Upon completion of the work, ninety percent (90%) of the lump sum less any amounts due the City from the contractor for supplies, materials, services, damages, or otherwise, deductible under the terms of the contract, shall be made upon approval of the City Council of the City of Ridgecrest. Payment of the entire balance due the contractor for work performed will be made within sixty (60) days after the date of completion of the work of improvement in accordance with section GC-63. The amount of this balance due shall consist of the total contract value of the work performed by the contractor less the total of all payments previously made to him and less all amounts due the City from the contractor for supplies, materials, services, damages, or otherwise, deductible under the terms of this contract, all as determined by the Engineer's final estimate.

**SC-7      *Bid Guarantee***

All bids must be accompanied by a certified cashier's check or a bid bond for ten percent (10%) of the amount of the proposal. The deposit submitted by the three (3) lowest bidders will be retained until a contract has been awarded. Following the award of a contract, the deposit of the successful bidder will be returned upon execution of a contract with the City. The deposits submitted by all other than the three (3) low bidders will be returned as soon as all bids have been opened, checked and declared to the City Council. Should a bidder fail to execute a valid contract offered to him by the City, his deposit will be forfeited to the City.

**SC-8      *Bidding Procedures and Responsibility***

The City reserves the right to reject any bid of any contractor who, in the judgment of the City, is not qualified or is poorly qualified or equipped to do the work. The City reserves the right to reject any bid based on conditions or contingencies imposed by the bidder on his bid.

**SC-9      *Guarantee***

The contractor guarantees the work and materials furnished by him for one (1) year after the Notice of Completion has been recorded by the City and that work performed by him under this contract will be the best of its class, will be performed in the best manner and that both work and materials furnished by him will meet fully the requirements of these specifications. Should the contractor fail to act promptly in accordance with the guarantees of paragraph GC-30 or should the situation require immediate repairs or replacement to be made before the contractor can be notified or respond to notification, the City may at its option make the necessary repairs or replacement and the contractor shall pay the City the actual cost of such repairs plus fifteen percent (15%).

**SC-10 Safety**

All safety orders, rules, and recommendations of the Federal Government and the Division of Industrial Safety of the Department of Industrial Relations of the State of California applicable to the work to be done under this contract shall be obeyed and enforced by the contractor. The contractor shall comply with applicable local regulations.

Sufficient and adequate signs, lights, barricades, and cones shall be furnished, placed, and maintained throughout the construction project as may be deemed necessary by the contractor to adequately protect the public from injury or unnecessary inconvenience due to the construction operations. When traffic is to be interrupted or detoured, adequately equipped and instructed flagmen shall be provided by the contractor as deemed necessary by the contractor.

When, in the opinion of the Engineer, additional traffic control, traffic control devices, placement or removal of material, or any other safety related activities are needed to more adequately protect the public either from injury or from unnecessary inconvenience attributable to the construction operations, the contractor shall carry out such additional safety precautions as are directed by the Engineer.

Payment to the contractor for all costs incurred by him in conforming to this section and paragraph SC-18 - Maintaining Traffic, shall be considered as included in payment for other items of work and no additional special payment will be made therefore.

**SC-11 Inspection, Licenses, and Permits**

The contractor shall possess such state and local licenses as are required by law and shall furnish satisfactory proof to the Engineer upon request that such licenses are in effect during the entire period of the contract. The contractor shall obtain a current City of Ridgecrest Business License prior to start of work.

**SC-12 Damage to Facilities Prior to Acceptance**

Any facilities installed under this contract which are damaged prior to City acceptance shall be replaced by the contractor at his expense with materials approved by the City. The contractor shall be charged for any such material furnished by the City.

**SC-13**    ***Precedence***

Where types or classes of work not covered in these specifications must be performed, the work shall be done in accordance with the latest revised appropriate standards designated by the Engineer. The Engineer shall determine the appropriateness and applicability of the specifications to be applied. The utilization of all the materials shall be in accordance with the manufacturer's recommendations except where otherwise specified.

**SC-14**    ***Investigation of Site***

Each bidder shall study the plans and specifications and investigate the site of the work. He shall determine the actual conditions and requirements of the work, character, and amount of all necessary classes of labor and materials that may be required and all circumstances and conditions that affect the cost of the work. He shall include in his bid price any and all expenses or cost that may be necessary to complete the project in accordance with the requirements of this contract. The bidder hereby certifies that he has examined the local conditions, has read each and every clause of the specifications and agrees that if he is awarded the contract he will have no claim against the City based upon ignorance of the local conditions or misunderstanding of the provisions of the contract or specifications.

**SC-15**    ***Lines, Grades, and Locations***

The City will furnish the initial survey to establish the alignment stationing and grades of the work. This initial survey will constitute the only field marks and locations that the City will provide to the contractor. The contractor will at his expense establish and restore any of the initial survey points so furnished by the City which may have been destroyed, lost, or obliterated after their initial establishment.

**SC-16**    ***Water***

Water required by the contractor for construction purposes shall be furnished by the Indian Wells Valley Water District at contractor expense and the contractor shall conform to all rules and regulations of said District.

**SC-17**    ***Private Property Improvements***

All improvements on private property shall be preserved where possible, however, the replacement of landscaping, fencing, concrete, and other private improvements will be the responsibility of the contractor and will be required unless otherwise shown on the plans.

The Contractor shall be responsible for obtaining right of entry with each property owner impacted prior to commencing work on private property.

### **SC-18** *Maintaining Traffic*

Attention is directed to Section 37-1.03 of the Standard Specifications. The contractor will be required to furnish the City a work schedule sufficiently detailed so that the City may ascertain therefrom what effect the contractor's proposed construction program will have on traffic through the construction area. The contractor's plan for traffic shall be approved by the Engineer.

The contractor shall conduct his operations so as to offer the least possible obstruction and inconvenience to the public and he shall have under construction no greater amount of work than he can prosecute properly with due regard to the rights of the public. Temporary approaches at private driveways shall be provided as needed and when ordered by the Engineer and shall be kept in good condition. Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately at the contractor's expense.

#### *General Traffic Control Requirements*

1. Contractor shall provide all necessary detour signs, warning signs, safety devices, and flagmen as required for the benefit and safety of the traveling public.
2. Contractor shall assure that adequate ingress and egress is provided to all commercial establishments adjacent to the work.
3. Contractor shall assure that residents of residential properties adjacent to the work are afforded reasonable and safe access to their property, and that overnight parking of their vehicles on such property is not restricted except when suitable on-street parking is available.
4. Contractor shall not close adjacent intersection simultaneously.

### **SC-19** *Compaction*

Native and subbase shall be compacted to ninety-five percent (95%) relative compaction.

***SECTION IV: CONSTRUCTION SPECIFICATIONS***

## ***General***

### ***1-01 Order Of Work***

Order of work shall conform to the provisions in Section 5-1.05, "Order of Work," of the Standard Specifications and these special provisions.

Attention is directed to "Miscellaneous Concrete Construction" of these special provisions regarding constructing a 2' x 2' test panel prior to constructing curb ramps with detectable warning surfaces.

The first order of work shall be to place the order for the electrical equipment. The Engineer shall be furnished a statement from the vendor that the order for the electrical equipment has been received and accepted by the vendor.

The uppermost layer of new pavement shall not be placed until all underlying conduits and loop detectors have been installed.

The second item of work shall be to positively identify all utilities horizontally and vertically. Attention is directed to Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications. Through potholing or other methods approved by the Engineer, the Contractor shall ascertain the exact location of underground main or truck lines whose presence is indicated on the plans or in the special provisions, the location of their service laterals or other appurtenances, and of existing service lateral or appurtenances of any other underground facilities which can be inferred from the presence of visible facilities such as buildings, meters and junction boxes prior to doing work that may damage any of the facilities or interfere with their services. The Contractor shall notify the Engineer immediately if any utility is found that will be in conflict with the proposed work. Full compensation for identifying the exact location of all utilities shall be considered as included in the contract price paid for the various items bid and no additional compensation will be allowed therefore.

Prior to commencement of the traffic signal functional test at any location, all items of work related to signal control shall be completed and all roadside signs, striping, and pavement markings shall be in place at that location.

Attention is directed to "Maintaining Traffic" and "Temporary Pavement Delineation" of these special provisions and to the stage construction sheets of the plans.

Attention is directed to "Progress Schedule (Critical Path Method)" of these special provisions regarding the submittal of a general time-scaled logic diagram within 10 days after approval of the contract. The diagram shall be submitted prior to performing any work that may be affected by any proposed deviations to the construction staging of the project.

The work shall be performed in conformance with the stages of construction shown on the

plans. Nonconflicting work in subsequent stages may proceed concurrently with work in preceding stages, provided satisfactory progress is maintained in the preceding stages of construction.

In each stage, after completion of the preceding stage, the first order of work shall be the removal of existing pavement delineation as directed by the Engineer. Pavement delineation removal shall be coordinated with new delineation so that lane lines are provided at all times on traveled ways open to public traffic.

Before obliterating any pavement delineation (traffic stripes, pavement markings, and pavement markers) that is to be replaced on the same alignment and location, as determined by the Engineer, the pavement delineation shall be referenced by the Contractor, 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. Full compensation for referencing existing pavement delineation shall be considered as included in the contract prices paid for new pavement delineation and no additional compensation will be allowed therefor.

Prior to applying Hot Mix Asphalt (Type A), the Contractor shall cover all manholes, valve and monument covers, grates, or other exposed facilities located within the area of application, using a plastic or oil resistant construction paper secured to the facility being covered by tape or adhesive. The covered facilities shall be referenced by the Contractor, with a sufficient number of control points to relocate the facilities after the Hot Mixed Asphalt has been placed. After completion of the paving operation, all covers shall be removed and disposed of in a manner satisfactory to the Engineer. Full compensation for covering manholes, valve and monument covers, grates, or other exposed facilities, referencing, and removing temporary cover shall be considered as included in the contract price paid per ton for Hot Mixed Asphalt (Type A), and no additional compensation will be allowed therefor.

At the end of each working day if a difference in excess of 0.15 foot exists between the elevation of the existing pavement and the elevation of excavations within 8 feet of the traveled way, material shall be placed and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose; however, once placing of the structural section commences, structural material shall be used. The material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 4:1 (horizontal:vertical) or flatter to the bottom of the excavation. Treated base shall not be used for the taper.

Full compensation for placing the material on a 4:1 slope, regardless of the number of times the material is required, and subsequent removing or reshaping of the material to the lines and grades shown on the plans shall be considered as included in the contract price paid for the materials involved and no additional compensation will be allowed therefor. No payment will be made for material placed in excess of that required for the structural section.

Some plants required for this project may not be readily available and may have to be grown specifically for this project. Within 30 days after the contract has been approved, furnish to the Engineer a statement from the vendor that the order for the plants to be grown for this contract, including inspection plants and replacement plants, has been received and accepted by the vendor. The statement from the vendor must include the names, sizes, and quantities of plants ordered and the anticipated dates of delivery. Notify the Engineer in writing when the vendor has started to grow the plants.

At least 60 days before planting the plants, furnish the Engineer a statement from the vendor that the order for the plants required for this contract, including inspection plants, has been received and accepted by the vendor. The statement from the vendor must include the names, sizes, and quantities of plants ordered and the anticipated date of delivery.

Place orders for replacement plants with the vendor at the appropriate time so that the roots of the replacement plants are not in a root-bound condition.

Submittal of working drawings for electrical components must comply with Section 20-5.027B, "Wiring Plans and Diagrams," of the Standard Specifications.

Preinstall irrigation components in the irrigation controller enclosure cabinet before field installation as specified under "Irrigation Controller Enclosure Cabinet" of these special provisions.

## ***1-02 Progress Schedule (Critical Path Method)***

### ***Summary***

Comply with Section 8-1.04, "Progress Schedule," of the Standard Specifications, except you must:

1. Use a computer software to prepare the schedule
2. Furnish compatible software for the Engineer's exclusive possession and use

You are responsible for assuring that all activity sequences are logical and that each schedule shows a coordinated plan for complete performance of the work.

### ***Definitions***

**contract completion date:** The current extended date for completion of the contract shown on the weekly statement of working days furnished by the Engineer as specified in Section 8-1.06, "Time of Completion," of the Standard Specifications.

**data date:** The day after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "planned."

**early completion time:** The difference in time between an early scheduled

completion date and the contract completion date.

**float:** The difference between the earliest and latest allowable start or finish times for an activity.

**milestone:** An event activity that has zero duration and is typically used to represent the beginning or end of a certain stage of the project.

**narrative report:** A document submitted with each schedule that discusses topics related to project progress and scheduling.

**near critical path:** A chain of activities with total float exceeding that of the critical path but having no more than 10 working days of total float.

**State owned float activity:** The activity documenting time saved on the critical path by actions of the State. It is the last activity prior to the scheduled completion date.

**time impact analysis:** A schedule and narrative report developed specifically to demonstrate what effect a proposed change or delay has on the current scheduled completion date.

**time-scaled network diagram:** A graphic depiction of a CPM schedule comprised of activity bars with relationships for each activity represented by arrows. The tail of each arrow connects to the activity bar for the predecessor and points to the successor.

**total float:** The amount of time that an activity or chain of activities can be delayed before extending the scheduled completion date.

### ***Submittals***

#### ***General Requirements***

Submit to the Engineer baseline, monthly updated, and final updated schedules, each consistent in all respects with the time and order of work requirements of the contract. Perform work in the sequence indicated on the current accepted schedule.

Each schedule must show:

1. Calculations using the critical path method to determine controlling activities.
2. Duration activities less than 20 working days.
3. At least 50 but not more than 500 activities, unless authorized. The number of activities must be sufficient to assure adequate planning of the project, to permit monitoring and evaluation of progress, and to do an analysis of time impacts.
4. Each required constraint. Constraints other than those required by the special provisions may be included only if authorized.
5. State-owned float as the predecessor activity to the scheduled completion date.
6. Activities with identification codes for responsibility, stage, work shifts, location, and contract pay item numbers.

You may show early completion time on any schedule provided that the

requirements of the contract are met. Early completion time is considered a resource for your exclusive use. You may increase early completion time by improving production, reallocating resources to be more efficient, performing sequential activities concurrently, or by completing activities earlier than planned.

You may show a scheduled completion date that is later than the contract completion date on an update schedule, after the baseline schedule is accepted. Provide an explanation for a late scheduled completion date in the narrative report that is included with the schedule.

State-owned float is considered a resource for the exclusive use of the State. The Engineer may accrue State-owned float by the early completion of review of any type of required submittal when it saves time on the critical path. Prepare a time impact analysis, when requested by the Engineer, to determine the effect of the action as specified in "Time Impact Analysis." The Engineer documents State-owned float by directing you to update the State-owned float activity on the next updated schedule. Include a log of the action on the State-owned float activity and include a discussion of the action in the narrative report. The Engineer may use State-owned float to mitigate past, present, or future State delays by offsetting potential time extensions for contract change orders.

The Engineer may adjust contract working days for ordered changes that affect the scheduled completion date as specified in Section 4-1.03, "Changes," of the Standard Specifications. Prepare a time impact analysis to determine the effect of the change as specified in "Time Impact Analysis" and include the impacts acceptable to the Engineer in the next updated schedule. Changes that do not affect the controlling operation on the critical path will not be considered as the basis for a time adjustment. Changes that do affect the controlling operation on the critical path will be considered by the Engineer in decreasing time or granting an extension of time for completion of the contract. Time extensions will only be granted if the total float is absorbed and the scheduled completion date is delayed one or more working days because of the ordered change.

The Engineer's review and acceptance of schedules does not waive any contract requirements and does not relieve you of any obligation or responsibility for submitting complete and accurate information. Correct rejected schedules and resubmit them within 7 days of notification by the Engineer, at which time a new review period of 7 days will begin.

Errors or omissions on schedules do not relieve you from finishing all work within the time limit specified for completion of the contract. If, after a schedule has been accepted by the Engineer, either you or the Engineer discover that any aspect of the schedule has an error or omission, you must correct it on

the next updated schedule.

### ***Computer Software***

Submit to the Engineer for review a description of proposed schedule software to be used. After the Engineer accepts the proposed software, furnish schedule software and all original software instruction manuals. All software must be compatible with the current version of the Windows operating system in use by the Engineer. The schedule software must include:

1. Latest version of Primavera SureTrak Project Manager for Windows, or equivalent
2. Latest version of schedule-comparing HST SureChange, or equivalent

If a schedule software equivalent to SureTrak is proposed, it must be capable of generating files that can be imported into SureTrak. The schedule-comparing software must be compatible with schedule software submitted and must be able to compare two schedules and provide reports of changes in activity ID, activity description, constraints, calendar assignments, durations, and logic ties.

The schedule software and schedule-comparing software will be returned to you before the final estimate. The Department will compensate you as specified in Section 4-1.03D, "Extra Work," of the Standard Specifications for replacement of software or manuals damaged, lost, or stolen after delivery to the Engineer.

Instruct the Engineer in the use of the software and provide software support until the contract is accepted. Within 15 days of contract approval, provide a commercial 8-hour training session for 2 Department employees in the use of the software at a location acceptable to the Engineer. It is recommended that you also send at least 2 employees to the same training session to facilitate development of similar knowledge and skills in the use of the software. If schedule software other than SureTrak is submitted, then the training session must be a total of 16-hours for each Department employee.

### ***Network Diagrams, Reports, and Data***

Include the following with each schedule submittal:

1. Two sets of originally plotted, time-scaled network diagrams
2. Two copies of a narrative report
3. One read-only compact disk or floppy diskette containing the schedule data

The time-scaled network diagrams must conform to the following:

1. Show a continuous flow of information from left to right
2. Be based on early start and early finish dates of activities
3. Clearly show the primary paths of criticality using graphical presentation
4. Be prepared on 34" x 44"
5. Include a title block and a timeline on each page

The narrative report must be organized in the following sequence with all applicable documents included:

1. Transmittal letter
2. Work completed during the period
3. Identification of unusual conditions or restrictions regarding labor, equipment or material; including multiple shifts, 6-day work weeks, specified overtime or work at times other than regular days or hours
4. Description of the current critical path
5. Changes to the critical path and scheduled completion date since the last schedule submittal
6. Description of problem areas
7. Current and anticipated delays:
  - 7.1. Cause of delay
  - 7.2. Impact of delay on other activities, milestones, and completion dates
  - 7.3. Corrective action and schedule adjustments to correct the delay
8. Pending items and status thereof:
  - 8.1. Permits
  - 8.2. Change orders
  - 8.3. Time adjustments
  - 8.4. Noncompliance notices
9. Reasons for an early or late scheduled completion date in comparison to the contract completion date

Schedule submittals will only be considered complete when all documents and data have been submitted as described above.

### ***Preconstruction Scheduling Conference***

Schedule a preconstruction scheduling conference with your project manager and the Engineer within 15 days after contract approval. The Engineer will conduct the meeting and review the requirements of this section with you.

Submit a general time-scaled logic diagram displaying the major activities and sequence of planned operations and be prepared to discuss the proposed work

plan and schedule methodology that comply with the requirements of this section. If you propose deviations to the construction staging, then the general time-scaled logic diagram must also display the deviations and resulting time impacts. Be prepared to discuss the proposal.

At this meeting, also submit the alphanumeric coding structure and activity identification system for labeling work activities. To easily identify relationships, each activity description must indicate its associated scope or location of work by including such terms as quantity of material, type of work, bridge number, station to station location, side of highway (such as left, right, northbound, southbound), lane number, shoulder, ramp name, ramp line descriptor, or mainline.

The Engineer reviews the logic diagram, coding structure, and activity identification system, and provide any required baseline schedule changes to you for implementation.

### ***Baseline Schedule***

Beginning the week following the preconstruction scheduling conference, meet with the Engineer weekly to discuss schedule development and resolve schedule issues until the baseline schedule is accepted.

Submit a baseline schedule within 20 days of contract approval. Allow 20 days for the Engineer's review after the baseline schedule and all support data are submitted. In addition, the baseline schedule submittal is not considered complete until the computer software is delivered and installed for use in review of the schedule.

The baseline schedule must include the entire scope of work and how you plan to complete all work contemplated. The baseline schedule must show the activities that define the critical path. Multiple critical paths and near-critical paths must be kept to a minimum. A total of not more than 50 percent of the baseline schedule activities must be critical or near critical, unless otherwise authorized.

The baseline schedule must not extend beyond the number of contract working days. The baseline schedule must have a data date of contract approval. If you start work before contract approval, the baseline schedule must have a data date of the 1st day you performed work at the job site.

If you submit an early completion baseline schedule that shows contract completion in less than 85 percent of the contract working days, the baseline schedule must be supplemented with resource allocations for every task activity and include time-scaled resource histograms. The resource allocations must be

shown to a level of detail that facilitates report generation based on labor crafts and equipment classes for you and your subcontractors. Use average composite crews to display the labor loading of on-site construction activities. Optimize and level labor to reflect a reasonable plan for accomplishing the work of the contract and to assure that resources are not duplicated in concurrent activities. The time-scaled resource histograms must show labor crafts and equipment classes to be used. The Engineer may review the baseline schedule activity resource allocations using Means Productivity Standards or equivalent to determine if the schedule is practicable.

### ***Updated Schedule***

Submit an updated schedule and meet with the Engineer to review contract progress, on or before the 1st day of each month, beginning one month after the baseline schedule is accepted. Allow 15 days for the Engineer's review after the updated schedule and all support data are submitted, except that the review period will not start until the previous month's required schedule is accepted. Updated schedules that are not accepted or rejected within the review period are considered accepted by the Engineer.

The updated schedule must have a data date of the 21st day of the month or other date established by the Engineer. The updated schedule must show the status of work actually completed to date and the work yet to be performed as planned. Actual activity start dates, percent complete, and finish dates must be shown as applicable. Durations for work that has been completed must be shown on the updated schedule as the work actually occurred, including Engineer submittal review and your resubmittal times.

You may include modifications such as adding or deleting activities or changing activity constraints, durations, or logic that do not (1) alter the critical path(s) or near critical path(s) or (2) extend the scheduled completion date compared to that shown on the current accepted schedule. Justify in writing the reasons for any changes to planned work. If any proposed changes in planned work will result in (1) or (2) above, then submit a time impact analysis as specified in this section.

### ***Time Impact Analysis***

Submit a written time impact analysis (TIA) with each request for adjustment of contract time, or when you or the Engineer consider that an approved or anticipated change may impact the critical path or contract progress.

The TIA must illustrate the impacts of each change or delay on the current scheduled completion date or internal milestone, as appropriate. The analysis must use the accepted schedule that has a data date closest to and before the

event. If the Engineer determines that the accepted schedule used does not appropriately represent the conditions before the event, the accepted schedule must be updated to the day before the event being analyzed. The TIA must include an impact schedule developed from incorporating the event into the accepted schedule by adding or deleting activities, or by changing durations or logic of existing activities. If the impact schedule shows that incorporating the event modifies the critical path and scheduled completion date of the accepted schedule, the difference between scheduled completion dates of the two schedules must be equal to the adjustment of contract time. The Engineer may construct and use an appropriate project schedule or other recognized method to determine adjustments in contract time until you provide the TIA.

Submit 2 copies of your TIA within 20 days of receiving a written request for a TIA from the Engineer. Allow the Engineer 15 days after receipt to review the submitted TIA. All approved TIA schedule changes must be shown on the next updated schedule.

If a TIA you submit is rejected, meet with the Engineer to discuss and resolve issues related to the TIA. If clarification is still needed, you are allowed 15 days to submit a protest as specified in the State Standard Specifications. If agreement is not reached, you are allowed 5 days from the date you receive the Engineer's response to your protest to submit an Initial Potential Claim Record as specified in the State Standard Specifications. Only show actual as-built work, not unapproved changes related to the TIA, in subsequent updated schedules. If agreement is reached at a later date, approved TIA schedule changes must be shown on the next updated schedule. The Engineer withholds remaining payment on the schedule contract item if a TIA is requested and not submitted within 20 days. The schedule item payment resumes on the next estimate after the requested TIA is submitted. No other contract payment is withheld regarding TIA submittals.

### ***Final Updated Schedule***

Submit a final update, as-built schedule with actual start and finish dates for the activities, within 30 days after completion of contract work. Provide a written certificate with this submittal signed by your project manager or an officer of the company stating, "To my knowledge and belief, the enclosed final update schedule reflects the actual start and finish dates of the actual activities for the project contained herein." An officer of the company may delegate in writing the authority to sign the certificate to a responsible manager.

### ***Payment***

Progress schedule (critical path method) will be paid for at a lump sum price. The contract lump sum price paid for progress schedule (critical path method)

includes full compensation for furnishing all labor, material, tools, equipment, and incidentals, including computer software, and for doing all the work involved in preparing, furnishing, and updating schedules, and instructing and assisting the Engineer in the use of computer software, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Payments for the progress schedule (critical path method) contract item will be made progressively as follows:

1. A total of 25 percent of the item amount will be paid upon achieving all of the following:
  - 1.1. Completion of 5 percent of all contract item work.
  - 1.2. Acceptance of all schedules and approval of all TIAs required to the time when 5 percent of all contract item work is complete.
  - 1.3. Delivery of schedule software to the Engineer.
  - 1.4. Completion of required schedule software training.
2. A total of 50 percent of the item amount will be paid upon completion of 25 percent of all contract item work and acceptance of all schedules and approval of all TIAs required to the time when 25 percent of all contract item work is complete.
3. A total of 75 percent of the item amount will be paid upon completion of 50 percent of all contract item work and acceptance of all schedules and approval of all TIAs required to the time when 50 percent of all contract item work is complete.
4. A total of 100 percent of the item amount will be paid upon completion of all contract item work, acceptance of all schedules and approval of all TIAs required to the time when all contract item work is complete, and submittal of the certified final update schedule.

If you fail to complete any of the work or provide any of the schedules required by this section, the Engineer makes an adjustment in compensation as specified in Section 4-1.03C, "Changes in Character of Work," of the Standard Specifications for the work not performed. Adjustments in compensation for schedules will not be made for any increased or decreased work ordered by the Engineer in submitting schedules.

### **1-03 Construction Site Management**

#### **Summary**

This work includes controlling potential sources of water pollution before they come in contact with storm water systems or watercourses.

Control material pollution and manage waste and non-storm water at the job site by implementing effective handling, storage, use, and disposal practices.

For information on documents under these special provisions, refer to the Department's Preparation Manual, Dewatering Guide, and BMP Manual.

Preparation Manual, Dewatering Guide, and BMP Manual are available from the Department's Construction Storm Water and Water Pollution Control web site at:

<http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm>

### ***Definitions***

**BMP Manual:** The Department's Construction Site Best Management Practices (BMP) Manual.

**Dewatering Guide:** The Department's Field Guide to Construction Site Dewatering.

**Minor spills:** Small quantities of oil, gasoline, paint, or other material that are small enough to be controlled by a first responder upon discovery of the spill.

**Preparation Manual:** The Department's Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual.

**Semi-significant spills:** Spills that can be controlled by a first responder with help from other personnel.

**Significant or hazardous spills:** Spills that cannot be controlled by construction personnel.

### ***Submittals***

Submit the following:

1. Material Safety Data Sheet (MSDS) at least 5 days before material is used or stored
2. Monthly inventory records for material used or stored
3. Stormwater training:
  - 3.1. Include training dates and subject for employees and subcontractors with SWPPP or WPCP. Include dates and subject for ongoing training, including tailgate meetings.
  - 3.2. Employee training records:
    - 3.2.1. Within 5 days of SWPPP or WPCP approval for existing employees
    - 3.2.2. Within 5 days of training for new employees
    - 3.2.3. At least 5 days before subcontractors begin work for subcontractor's employees
4. Manifest forms for hazardous waste disposal within 5 days of transport and disposal

5. Copy of written approval to discharge into a sanitary sewer system at least 5 days before beginning discharge activities

### ***Quality Control and Assurance***

Train all employees and subcontractors in these subjects:

1. Material pollution prevention and control
2. Waste management
3. Non-storm water management
4. Identifying and handling hazardous substances
5. Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Training must take place before starting work on this job. New employees must receive the complete training before starting work on this job. Conduct weekly meetings to discuss and reinforce spill prevention and control; material delivery, storage, use, and disposal; waste management; and non-storm water management procedures.

### ***Construction***

#### ***Spill Prevention and Control***

Implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site.

As soon as it is safe, contain and clean up spills of petroleum products, sanitary and septic waste substances listed under CFR Title 40, Parts 110, 117, and 302.

Minor Spills: Clean up minor spills using these procedures:

1. Contain spread of the spill
2. Recover spilled material using absorption
3. Clean contaminated area
4. Dispose of contaminated material promptly and properly

Semi-significant Spills: Clean up semi-significant spills immediately using these procedures:

1. Contain spread of the spill
2. Recover spilled material using absorption where the spill occurs on paved or an impermeable surface
3. Contain the spill with an earthen dike and dig up contaminated soil for disposal where the spill occurs on soil
4. When the spill occurs during precipitation, cover the spill with

- plastic or other material to prevent contaminated runoff
- 5. Dispose of contaminated material promptly and properly

Significant or Hazardous Spills: Immediately notify qualified personnel of significant or hazardous spills. Take these steps:

1. Construction personnel must not attempt to cleanup the spill until qualified staff have arrived
2. Notify the Engineer and follow up with a written report
3. Obtain the services of a spills contractor or hazardous material team immediately
4. Notify the local emergency response team by dialing 911 and county officials at the emergency phone numbers kept on the job site
5. Notify the Governor's Office of Emergency Services Warning Center at (805) 852-7550
6. Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under CFR Title 40, Parts 110, 119, and 302
7. Notify other agencies as appropriate, including:
  - 7.1. Fire Department
  - 7.2. Public Works Department
  - 7.3. Coast Guard
  - 7.4. Highway Patrol
  - 7.5. City Police or County Sheriff Department
  - 7.6. Department of Toxic Substances
  - 7.7. California Division of Oil and Gas
  - 7.8. Cal OSHA
  - 7.9. Regional Water Resources Control Board

Report minor, semi-significant, and significant spills to the WPC (Water Pollution Control) manager. WPC manager must notify the Engineer immediately. WPC manager must oversee and enforce proper spill prevention and control measures.

Prevent spills from entering storm water runoff before and during cleanup. Spills must not be buried or washed with water.

Keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored.

### ***Material Management***

Material must be delivered, used, and stored for this job in a way that minimizes or eliminates discharge of material into the air, storm drain systems, or watercourses.

Implement the practices described in this section while taking delivery of, using, or storing these materials:

1. Hazardous chemicals including:
  - 1.1. Acids
  - 1.2. Lime
  - 1.3. Glues
  - 1.4. Adhesives
  - 1.5. Paints
  - 1.6. Solvents
  - 1.7. Curing compounds
2. Soil stabilizers and binders
3. Fertilizers
4. Detergents
5. Plaster
6. Petroleum products including:
  - 6.1. Fuel
  - 6.2. Oil
  - 6.3. Grease
7. Asphalt components and concrete components
8. Pesticides and herbicides

Employees trained in emergency spill cleanup procedures must be present during unloading of hazardous materials or chemicals. If practical, use less hazardous products.

### ***Material Storage***

Use these storage procedures:

1. Store liquids, petroleum products, and substances listed in CFR Title 40, Parts 110, 117, and 302 in containers or drums approved by the United States Environmental Protection Agency, and place them in secondary containment facilities.
2. Secondary containment facilities must be impervious to the materials stored there for a minimum contact time of 72 hours.
3. Throughout the rainy season, cover secondary containment facilities during non-working days and when precipitation is predicted. Secondary containment facilities must be adequately ventilated.
4. Keep secondary containment facility free of accumulated rainwater or spills. After precipitation, or in the event of spills or leaks, collect accumulated liquid and place into drums within 24 hours. Handle these liquids as hazardous waste under "Hazardous Waste" unless testing determines them to be nonhazardous.
5. Do not store incompatible materials, such as chlorine and ammonia, in

- the same secondary containment facility.
6. Store materials in the original containers with the original product labels maintained in legible condition. Replace damaged or illegible labels immediately.
  7. Secondary containment facility must have the capacity to contain precipitation from a 24-hour-long, 25-year storm; and 10 percent of the aggregate volume of all containers, or entire volume of the largest container within the facility, whichever is greater.
  8. Store bagged or boxed material on pallets. Throughout the rainy season, protect bagged or boxed material from wind and rain during non-working days and while precipitation is predicted.
  9. Provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas must be kept clean, well organized, and equipped with cleanup supplies appropriate for the materials being stored.
  10. Repair or replace perimeter controls, containment structures, covers, and liners as necessary. Inspect storage areas before and after precipitation, and at least weekly during other times.

### ***Stockpile Management***

Implement practices described in this section for managing stockpiles:

1. During the rainy season
2. During the non-rainy season when the National Weather Service predicts precipitation with a probability of at least 30 percent

Use these stockpile management procedures:

1. Reduce or eliminate potential air and water pollution from stockpiled material including soil, paving material, or pressure treated wood.
2. Locate stockpiles:
  - 2.1. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, or inlets unless approved
  - 2.2. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, or inlets unless approved

Active and inactive soil stockpiles must be:

1. Covered with soil stabilization measures, plastic sheeting, or geosynthetic fabric
2. Surrounded with a linear sediment barrier

Portland cement concrete rubble, AC, HMA, AC and HMA rubble, aggregate base or aggregate sub-base stockpiles must be:

1. Covered with plastic sheeting, or geosynthetic fabric
2. Surrounded with a linear sediment barrier

Pressure treated wood stockpiles must be:

1. Placed on pallets
2. Covered with impermeable material

Cold mix asphalt concrete stockpiles must be:

1. Placed on impervious surface
2. Covered with impermeable material
3. Protected from run-on and runoff

If you discontinue adding or removing material for up to 21 days the stockpile is considered still active during that period.

Control wind erosion during the non-rainy season and dry weather under Section 10, "Dust Control".

Repair or replace linear sediment barriers and covers as needed to keep them functioning properly. If sediment accumulates to 1/3 of the linear sediment barrier height, remove sediment.

### ***Waste Management***

#### ***Solid Waste***

Do not allow litter or debris to accumulate anywhere on the job site, including storm drain grates, trash racks, and ditch lines. Pick up and remove trash and debris from the job site at least once a week. WPC manager must monitor solid waste storage and disposal procedures on the job site.

If practicable, recycle nonhazardous job site waste and excess material. If recycling is not practicable, disposal must comply with Section 7-1.13, "Disposal of Material Outside the Highway Right of Way."

Furnish enough closed-lid dumpsters of sufficient size to contain the solid waste generated by work activities. When refuse reaches the fill line, empty dumpsters. Dumpsters must be watertight. Do not wash out dumpsters at the job site. Furnish additional containers and more frequent pickup during the demolition phase of construction.

Solid waste includes:

1. Brick
2. Mortar
3. Timber
4. Metal scraps
5. Sawdust
6. Pipe
7. Electrical cuttings
8. Non-hazardous equipment parts
9. Styrofoam and other packaging materials
10. Vegetative material and plant containers from highway planting
11. Litter and smoking material, including litter generated randomly by the public
12. Other trash and debris

Furnish and use trash receptacles in the job site yard, field trailers, and locations where workers gather for lunch and breaks.

### ***Hazardous Waste***

Use hazardous waste management practices if waste is generated on the job site from these substances:

1. Petroleum products
2. Asphalt products
3. Concrete curing compound
4. Pesticides
5. Acids
6. Paints
7. Stains
8. Solvents
9. Wood preservatives
10. Roofing tar
11. Road flares
12. Lime
13. Glues and adhesives
14. Materials classified as hazardous by California Code of Regulations, Title 22, Division 4.5; or listed in CFR Title 40, Parts 110, 117, 261, or 302

WPC manager must oversee and enforce hazardous waste management practices. Minimize the production of hazardous materials and hazardous waste at the job site. If damaged, repair or replace perimeter controls, containment structures, and covers.

If hazardous material levels are unknown, use a laboratory certified by the Environmental Laboratory Accreditation Program (ELAP) under the California

Department of Public Health (CDPH) to sample and test waste to determine safe methods for storage and disposal.

Separate potentially hazardous waste from nonhazardous waste at the job site. Hazardous waste must be handled, stored, and disposed of under California Code of Regulations, Title 22, Division 4.5, Section 66262.34; and in CFR Title 49, Parts 261, 262, and 263.

Store hazardous waste in sealed containers constructed and labeled with the contents and date accumulated under California Code of Regulations, Title 22, Division 4.5; and in CFR Title 49, Parts 172, 173, 178, and 179. Keep hazardous waste containers in temporary containment facilities under "Material Storage" of these special provisions.

Furnish containers with adequate storage volume at convenient locations for hazardous waste collection. Do not overfill hazardous waste containers. Do not mix hazardous wastes. Do not allow potentially hazardous waste to accumulate on the ground. Store containers of dry waste that are not watertight on pallets. Store hazardous waste away from storm drains, watercourses, moving vehicles, and equipment.

Clean water based or oil based paint from brushes or equipment within a contained area and in a way that does not contaminate soil, watercourses, or storm drain systems. Handle and dispose of these as hazardous waste: paints, thinners, solvents, residues, and sludges that cannot be recycled or reused. When thoroughly dry, dispose of these as solid waste: dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths.

Dispose of hazardous waste within 90 days of being generated. Use a licensed hazardous waste transporter to take hazardous waste to a Class I Disposal Site. Submit a copy of uniform hazardous waste manifest forms within 24 hours of transporting hazardous waste.

WPC manager must inspect these daily:

1. Storage areas for hazardous materials and wastes
2. Hazardous waste disposal and transporting activities
3. Hazardous material delivery and storage activities

### ***Contaminated Soil***

Identify contaminated soil from spills or leaks by noticing discoloration, odors, or differences in soil properties. Soil with evidence of contamination must be sampled and tested by a laboratory certified by ELAP.

If levels of contamination are found to be hazardous, handle and dispose of the soil as hazardous waste.

Prevent the flow of water, including ground water, from mixing with contaminated soil by using one or a combination of these measures:

1. Berms
2. Cofferdams
3. Grout curtains
4. Freeze walls
5. Concrete seal course

If water mixes with contaminated soil and becomes contaminated, sample and test the water using a laboratory certified by ELAP. If levels of contamination are found to be hazardous, handle and dispose of the water as hazardous waste.

### **Concrete Waste**

Use practices to prevent the discharge of portland cement concrete, AC, or HMA waste into storm drain systems or watercourses.

Collect and dispose of portland cement concrete, AC, or HMA waste at locations where:

1. Concrete material, including grout, is used
2. Concrete dust and debris result from demolition
3. Sawcutting, coring, grinding, grooving, or hydro-concrete demolition of portland cement concrete, AC, or HMA creates a residue or slurry
4. Concrete truck or other concrete-coated equipment is cleaned at the job site

### **Sanitary and Septic Waste**

Do not bury or discharge wastewater from sanitary or septic systems within Department right of way. WPC manager must inspect sanitary or septic waste storage and monitor disposal procedures at least weekly. Sanitary facilities that discharge to the sanitary sewer system must be properly connected and free from leaks. Place sanitary facilities at least 50 feet away from storm drains, watercourse, and flow lines.

Obtain written approval from local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system, and submit a copy to the Engineer. Comply with local

health agency provisions while using an on-site disposal system.

### ***Liquid Waste***

Use practices to prevent job site liquid waste from entering storm drain systems or watercourses. Liquid wastes include the following:

1. Drilling slurries or fluids
2. Grease-free or oil-free wastewater or rinse water
3. Dredgings, including liquid waste from drainage system cleaning
4. Liquid waste running off a surface including wash or rinse water
5. Other non-storm water liquids not covered by separate permits

Hold liquid waste in structurally sound, leak proof containers such as:

1. Roll-off bins
2. Portable tanks

Liquid waste containers must be of sufficient quantity and volume to prevent overflow, spills and leaks. Store containers:

1. At least 50 feet from moving vehicles and equipment
2. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, or storm drain inlets unless approved
3. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, or storm drain inlets unless approved

Remove and dispose of deposited solids from sediment traps under "Solid Waste" unless the Engineer authorizes another method.

Liquid waste may require testing to determine hazardous material content before disposal. Drilling fluids and residue must be disposed of outside the highway right of way.

If an approved location is available within the job site, fluids and residue exempt under California Code of Regulations, Title 23, Section 2511(g) may be dried by evaporation in a leak proof container. Dispose of remaining solid waste under "Solid Waste" of these special provisions.

### ***Non-Storm Water Management***

#### ***Water Control and Conservation***

Manage water used for work activities to prevent erosion or discharge of

pollutants into storm drain systems or watercourses. Obtain approval before washing anything on the job site with water that could discharge into a storm drain system or watercourse. Report discharges immediately.

If water is used at the job site, implement water conservation practices. Inspect irrigation areas. Adjust watering schedules to prevent erosion, excess watering, or runoff. Shut off water source to broken lines, sprinklers, or valves, and repair breaks within 24 hours. If possible, reuse water from waterline flushing for landscape irrigation. Sweep and vacuum paved areas: do not wash with water.

Direct job site water runoff, including water from water line repair, to areas where it can infiltrate into the ground and not enter storm drain systems or watercourses. Do not allow spilled water to escape water truck filling areas. If possible, direct water from off-site sources around the job site. Minimize the contact of off-site water with job site water.

### ***Illegal Connection and Discharge Detection and Reporting***

Inspect the job site and the site perimeter before starting work for evidence of illegal connections, discharges, or dumping. After starting work, inspect the job site and perimeter on a daily schedule.

When illegal connections, discharges, or dumping are discovered, notify the Engineer immediately. Take no further action unless ordered by the Engineer. Assume unlabeled or unidentifiable material is hazardous.

Look for the following evidence of illegal connections, discharges, or dumping:

1. Debris or trash piles
2. Staining or discoloration on pavement or soils
3. Pungent odors coming from drainage systems
4. Discoloration or oily sheen on water
5. Stains or residue in ditches, channels or drain boxes
6. Abnormal water flow during dry weather
7. Excessive sediment deposits
8. Nonstandard drainage junction structures
9. Broken concrete or other disturbances near junction structures

### ***Vehicle and Equipment Cleaning***

Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. Notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam. Contain and recycle or dispose of resulting waste under "Liquid Waste"

or "Hazardous Waste" of these special provisions, whichever is applicable. Do not use diesel to clean vehicles or equipment, and minimize the use of solvents.

Clean or wash vehicles and equipment in a structure equipped with disposal facilities. If using a structure is not possible, vehicles and equipment must be cleaned or washed in an outside area:

1. Paved with AC, HMA, or portland cement concrete
2. Surrounded by a containment berm
3. Equipped with a sump to collect and dispose of wash water
4. If within the floodplain, located at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, or storm drain inlets unless approved
5. If outside the floodplain, located at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, or storm drain inlets unless approved

When washing vehicles or equipment with water, use as little water as possible. Hoses must be equipped with a positive shutoff valve.

Discharge liquid from wash racks to a recycle system or to another approved system. Remove liquids and sediment as necessary.

WPC manger must inspect vehicle and equipment cleaning facilities:

1. Daily when vehicle and equipment cleaning occurs daily
2. Weekly when vehicle and equipment cleaning does not occur daily

### ***Vehicle and Equipment Fueling and Maintenance***

If practicable, perform maintenance on vehicles and equipment off the job site.

If fueling or maintenance must be done at the job site, designate a site, or sites, and obtain approval before using. Minimize mobile fueling or maintenance.

If vehicle and equipment fueling and maintenance must be done on the job site, areas for these activities must be:

1. On level ground
2. Protected from stormwater run-on
3. If within the floodplain, located at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, or storm drain inlets unless approved
4. If outside the floodplain, located at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, or storm drain inlets unless approved

Use containment berms or dikes around the fueling and maintenance area. Keep adequate quantities of absorbent spill cleanup material and spill kits in the fueling and maintenance area and on fueling trucks. Dispose of spill cleanup material and kits immediately after use. Use drip pans or absorbent pads during fueling or maintenance.

Fueling or maintenance activities must not be left unattended. Fueling nozzles must be equipped with an automatic shutoff control. Vapor recovery fueling nozzles must be used where required by the Air Quality Management District. When not in use, nozzles must be secured upright. Do not top-off fuel tanks.

Recycle or properly dispose of used batteries and tires. WPC manager must inspect vehicle and equipment maintenance and fueling areas:

1. Daily when vehicle and equipment maintenance and fueling occurs daily
2. Weekly when vehicle and equipment maintenance and fueling does not occur daily

WPC manager must inspect vehicles and equipment at the job site for leaks and spills on a daily schedule. Operators must inspect vehicles and equipment each day of use.

If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

### ***Material and Equipment Used Over Water***

Place drip pans and absorbent pads under vehicles or equipment used over water. Keep an adequate supply of spill cleanup material with the vehicle or equipment. If the vehicle or equipment will be idle for more than one hour, place drip pans or plastic sheeting under vehicles or equipment on docks, barges, or other surfaces over water.

Furnish watertight curbs or toe boards on barges, platforms, docks, or other surfaces over water to contain material, debris, and tools. Secure material to prevent spills or discharge into water due to wind.

### ***Structure Removal Over or Adjacent to Water***

Do not allow demolished material to enter storm water systems or watercourses. Use approved covers and platforms to collect debris. Use attachments on equipment to catch debris on small demolition activities. Empty debris catching devices daily and handle debris under "Waste Management" of these special

provisions.

WPC manager must inspect demolition sites within 50 feet of storm water systems or watercourses daily.

### ***Paving, Sealing, Sawcutting, and Grinding Activities***

Prevent these materials from entering storm drain systems or water courses:

1. Cementitious material
2. Asphaltic material
3. Aggregate or screenings
4. Grinding or sawcutting residue
5. Pavement chunks
6. Shoulder backing
7. Methacrylate

Cover drainage inlets and use linear sediment barriers to protect downhill watercourses until paving, sealing, sawcutting, or grinding activities are completed and excess material has been removed. Cover drainage inlets and manholes during the application of seal coat, tack coat, slurry seal, or fog seal.

During the rainy season or when precipitation is predicted, limit paving, sawcutting, and grinding to places where runoff can be captured.

Do not start seal coat, tack coat, slurry seal, or fog seal activities when precipitation is predicted during application or curing period. Do not excavate material from existing roadways during precipitation.

Use a vacuum to remove slurry from sawcutting activities immediately after slurry is produced. Do not allow slurry to run onto lanes open to public traffic or off the pavement.

Collect residue from portland cement concrete grinding activities with a vacuum attachment on the grinding machine. Do not leave residue on pavement or allow residue to flow across pavement.

If approved, material excavated from existing roadways may be stockpiled under "Stockpile Management" of these special provisions.

Do not coat asphalt trucks and equipment with substances that contain soap, foaming agents, or toxic chemicals.

When paving equipment is not in use, park over drip pans or plastic sheeting with absorbent material to catch drips.

## ***Thermoplastic Striping and Pavement Markers***

Thermoplastic striping and preheating equipment shutoff valves must work properly at all times. Do not preheat, transfer, or load thermoplastic within 50 feet of drainage inlets or watercourses. Do not fill preheating container above a level that is 6 inches below the top. Truck beds must be cleaned daily of scraps or melted thermoplastic.

Do not unload, transfer, or load bituminous material for pavement markers within 50 feet of drainage inlets or watercourses. Release all pressure from melting tanks before removing the lid to fill or service. Do not fill melting tanks above a level that is 6 inches below the top.

Collect bituminous material from the roadway after marker removal.

## ***Concrete Curing***

Do not overspray chemical curing compound. Minimize drift by spraying as close to the concrete as possible. Cover drainage inlets before applying curing compound.

Minimize the use and discharge of water by using wet blankets or similar methods to maintain moisture while curing concrete.

## ***Concrete Finishing***

Collect and dispose of water and solid waste from high-pressure water blasting. Cover drainage inlets within 50 feet before sandblasting. Minimize drift of dust and blast material by keeping the nozzle close to the surface of the concrete. Blast residue may contain hazardous material.

Inspect containment structures for concrete finishing activities for damage before each day of use and before predicted precipitation. Remove liquid and solid waste from the containment structure after each work shift.

## ***Sweeping***

Sweeping must be done using hand or mechanical methods such as vacuuming.

Sweeping must be done:

1. At the end of each work shift
2. When the National Weather Service predicts precipitation with a probability of at least 30 percent
3. On paved roads at job site entrance and exit locations
4. On paved areas within the job site that flow to storm drains or

water bodies

You may stockpile collected material at the job site. Dispose of collected material at least once per week. Remove collected material including sediment from paved shoulders, drain inlets, curbs and dikes, and other drainage areas.

Sediment collected from the roadway during sweeping may be disposed of within the job site. Protect disposal areas against erosion.

Remove and dispose of trash collected during sweeping under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way".

### ***Dewatering***

Dewatering consists of discharging accumulated storm water, ground water, or surface water from excavations or temporary containment facilities.

If dewatering and discharging activities are specified under another work item such as "Temporary Active Treatment System" or "Dewatering and Discharge", then perform dewatering work as specified in those sections.

If dewatering and discharging activities are not specified under another work item, then:

1. At least 10 days before starting dewatering, submit a Dewatering and Discharge Plan under Section 5-1.02, "Plans and Working Drawings," and "Water Pollution Control" of the Standard Specifications. Dewatering and Discharge Plan must include:
  - 1.1. Title sheet and table of contents
  - 1.2. Description of dewatering and discharge activities detailing locations, quantity of water, equipment, and discharge point
  - 1.3. Estimated schedule for dewatering and discharge (start and end dates, intermittent or continuous)
  - 1.4. Discharge alternatives such as dust control or percolation
  - 1.5. Visual monitoring procedures with inspection log
2. Conduct dewatering activities under the Field Guide for Construction Dewatering.
3. Ensure that dewatering discharge does not cause erosion, scour, or sedimentary deposits that impact natural bedding materials.
4. Discharge water within project limits. If water cannot be discharged within project limits due to site constraints, dispose of it in the same way specified for material in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way".
5. Do not discharge storm water or non-storm water that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface. Notify the Engineer immediately upon discovering any of

those conditions.

6. WPC manager must inspect dewatering activities:
  - 6.1. Daily when dewatering work occurs daily
  - 6.2. Weekly when dewatering work does not occur daily

### ***Payment***

The contract lump sum price paid for construction site management includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in spill prevention and control, material management, waste management, non-storm water management, and dewatering and identifying, sampling, testing, handling, and disposing of hazardous waste, as specified in the Standard Specifications and these special provisions, and as ordered by the Engineer.

### **1-04 Water Pollution Control**

#### ***GENERAL***

##### ***Summary***

Discharges of storm water from the project must comply with NPDES General Permit for "Storm Water Discharges Associated with Construction and Land Disturbance Activities" (Order No. 2009-0009-DWQ, NPDES No. CAS000002) hereinafter called the "Permit." Manage work activities to reduce the discharge of pollutants to surface waters, groundwater, or municipal separate storm sewer systems including work items shown in the Bid Item List for:

1. Prepare Storm Water Pollution Prevention Plan. SWPPP preparation includes obtaining SWPPP approval, amending the SWPPP, preparing a CSMP and a SAP, and monitoring and inspecting WPC practices at the job site.
2. Storm Water Annual Report. Storm Water Annual Report preparation includes certifications, monitoring and inspection results, and obtaining Storm Water Annual Report acceptance.
3. Storm Water Sampling and Analysis Day. Storm Water Sampling and Analysis Day includes reporting of storm water quality per qualifying rain event. If specified for the risk level, the work includes preparation, collection, analysis, and reporting of storm water samples for turbidity, pH, and other constituents.
4. Rain Event Action Plan. If specified for the project risk level, REAP preparation includes preparing and submitting REAP forms and monitoring weather forecasts.

Do not start work until:

1. SWPPP is approved.

2. WDID is issued.
3. SWPPP review requirements have been fulfilled. If the RWQCB requires time for SWPPP review, allow 30 days for the RWQCB to review the SWPPP as specified under "Submittals" of these special provisions.

This project is Risk Level 1.

### ***Definitions and Abbreviations***

**active and inactive areas:** (1) Active areas have soil disturbing work activities occurring at least once within 14 days, and (2) Inactive areas are areas that have not been disturbed for at least 15 days.

**BMPs:** Best Management Practices are water pollution control practices.

**construction phase:** Construction phases are (1) Highway Construction including work activities for building roads and structures, (2) Plant Establishment including maintenance on vegetation installed for final stabilization, and (3) Suspension where work activities are suspended and areas are inactive.

**CSMP:** Construction Site Monitoring Program.

**NAL:** Numeric Action Level.

**NEL:** Numeric Effluent Limit.

**NPDES:** National Pollutant Discharge Elimination System.

**NOI:** Notice of Intent.

**normal working hours:** The hours you normally work on this project.

**Preparation Manual:** The Caltrans "Storm Water Pollution Prevention Plan and Water Pollution Control Program Preparation Manual."

**QSD:** Qualified SWPPP Developer.

**QSP:** Qualified SWPPP Practitioner.

**qualified rain event:** A qualified rain event is a storm that produces at least 0.5 inch of precipitation with a 48 hour or greater period between storms.

**REAP:** Rain Event Action Plan.

**RWQCB:** Regional Water Quality Control Board.

**SAP:** Sampling and Analysis Plan.

**SSC:** Suspended Sediment Concentration.

**SWRCB:** State Water Resources Control Board.

**SWPPP:** Storm Water Pollution Prevention Plan.

**WDID:** Waste Discharge Identification Number.

**WPC:** Water Pollution Control.

**WPC Manager:** Water Pollution Control Manager. The WPC Manager implements water pollution control work described in the SWPPP and oversees revisions and amendments to the SWPPP.

### ***Submittals***

Within 20 days after contract approval, start the following process for SWPPP approval:

1. Submit 3 copies of the SWPPP and allow 20 days for the Engineer's review. If revisions are required, the Engineer provides comments and specifies the date that the review stopped.
2. Change and resubmit the SWPPP within 15 days of receipt of the Engineer's comments. The Engineer's review resumes when the complete SWPPP is resubmitted.
3. When the Engineer approves the SWPPP, submit an electronic and 4 printed copies of the approved SWPPP.
4. If the RWQCB reviews the approved SWPPP, the Engineer submits one copy of the approved SWPPP to the RWQCB for their review and comment. RWQCBs requiring time to review SWPPPs include:
  - 4.1. Lahontan for projects in the Lake Tahoe Hydrologic Unit and the Mammoth Lakes Hydrologic Unit
5. If the Engineer requests changes to the SWPPP based on RWQCB comments, amend the SWPPP within 10 days.

Submit:

1. Storm water training records including training dates and subjects for employees and subcontractors. Include dates and subjects for ongoing training, including tailgate meetings.
2. Employee training records:
  - 2.1. Within 5 days of SWPPP approval for existing employees
  - 2.2. Within 5 days of training for new employees
  - 2.3. At least 5 days before subcontractors start work for subcontractor's employees

Prepare a Storm Water Annual Report for the reporting period from July 1st to June 30th. For the prior reporting period, submit the report no later than July 15th if construction occurs from July 1st through June 30th or within 15 days after contract acceptance if construction ends before June 30th.

Submit the Storm Water Annual Report as follows:

1. Submit 2 copies of the Storm Water Annual Report and allow 10 days for the Engineer's review. If revisions are required, the Engineer provides comments and specifies the date that the review stopped.
2. Change and resubmit the Storm Water Annual Report within 5 days of receipt of the Engineer's comments. The Engineer's review resumes when the complete Storm Water Annual Report is resubmitted.
3. When the Engineer accepts the Storm Water Annual Report, insert the WPC Manager's signed certification and the Engineer's signed certification.

Submit one electronic copy and 2 printed copies of the accepted Storm Water Annual Report.

Submit as required:

1. NAL Exceedance Reports
2. NEL Exceedance Reports
3. Visual Monitoring Reports
4. Inspection Reports
5. BMP Status Report

At least 5 days before operating any construction support facility, submit:

1. A plan showing the location and quantity of WPC practices associated with the construction support facility
2. A copy of the NOI approved by the RWQCB and the SWPPP approved by the RWQCB if you will be operating a batch plant or a crushing plant under the General Industrial Permit

### ***Quality Control and Assurance Training***

Provide storm water training for:

1. Project managers
2. Supervisory personnel
3. Employees involved with WPC work

Train all employees, including subcontractor's employees, in the following subjects:

1. WPC rules and regulations
2. Implementation and maintenance for:
  - 2.1. Temporary Soil Stabilization
  - 2.2. Temporary Sediment Control
  - 2.3. Tracking Control
  - 2.4. Wind Erosion Control
  - 2.5. Material pollution prevention and control
  - 2.6. Waste management
  - 2.7. Non-storm water management
  - 2.8. Identifying and handling hazardous substances
  - 2.9. Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Employees must receive initial WPC training before working on the job site.  
Conduct weekly training meetings covering:

1. WPC BMP deficiencies and corrective actions
2. BMPs that are required for work activities during the week
3. Spill prevention and control
4. Material delivery, storage, use, and disposal
5. Waste management
6. Non-storm water management procedures

Training for personnel to collect water quality samples must include:

1. SAP review
2. Health and safety review
3. Sampling simulations

A Storm Water Information Handout has been prepared for this contract and is available as described in "Supplemental Project Information" of these special provisions.

If you operate construction support facilities, protect storm water systems or receiving waters from the discharge of potential pollutants by using WPC practices.

Construction support facilities include:

1. Staging areas
2. Storage yards for equipment and materials
3. Mobile operations
4. Batch plants for PCC and HMA
5. Crushing plants for rock and aggregate
6. Other facilities installed for your convenience such as haul roads

If you operate a batch plant to manufacture PCC, HMA, or other material; or a crushing plant to produce rock or aggregate; obtain coverage under the General Industrial General Permit. You must be covered under the General Industrial Permit for batch plants and crushing plants located:

1. Outside of the job site
2. Within the job site that serve one or more contracts

Discharges from manufacturing facilities such as batch plants must comply with the general waste discharge requirements for Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, issued by the SWRCB for "Discharge of Stormwater Associated with Industrial Activities Excluding Construction Activities." For the General Industrial Permit, go to:

<http://www.waterboards.ca.gov/>

You may obtain copies of the Preparation Manual from the Publication Distribution Unit. The mailing address for the Publication Distribution Unit is:

State of California  
Department of Transportation  
Publication Distribution Unit  
1900 Royal Oaks Drive  
Sacramento, California 95815  
Telephone: (916) 445-3520

The Preparation Manual and other WPC references are available at the Caltrans "Construction Storm Water and Water Pollution Control" Web site. For the Web site, go to:

<http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm>

### ***Water Pollution Control Manager***

Assign one WPC Manager to implement the SWPPP. The WPC Manager must comply with the Permit qualifications for a QSP and a QSD. You may assign a different QSD to prepare the SWPPP.

The QSD must have the following qualifications:

1. Caltrans approved storm water management training described in the Caltrans "Construction Storm Water and Water Pollution Control" web site
2. Registration or certification described in the Permit

The QSP must meet the qualifications of the QSD or have the following certifications:

1. Caltrans approved storm water management training described in the Caltrans "Construction Storm Water and Water Pollution Control" web site
2. Certification described in the Permit

At the job site, the WPC Manager must:

1. Be responsible for WPC work
2. Be the primary contact for WPC work
3. Oversee the maintenance of WPC practices
4. Oversee and enforce hazardous waste management practices
5. Have the authority to mobilize crews to make immediate repairs to WPC practices
6. Ensure that all employees have current water pollution control training
7. Implement the approved SWPPP and amend the SWPPP when required

WPC Manager must oversee:

1. Inspections of WPC practices identified in the SWPPP
2. Inspections and reports for visual monitoring
3. Preparation and implementation of REAPs
4. Sampling and analysis
5. Preparation and submittal of:
  - 5.1. NAL exceedance reports
  - 5.2. NEL exceedance reports
  - 5.3. SWPPP annual certification
  - 5.4. Annual reports
  - 5.5. BMP status reports

## **STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**

### ***General***

SWPPP work includes preparing a SWPPP including a CSMP, obtaining SWPPP approval, amending the SWPPP, inspecting and reporting on WPC practices at the job site. The SWPPP must comply with the Preparation Manual and the Permit. The SWPPP must be submitted in place of the water pollution control program under Section 7-1.01G, "Water Pollution," of the Standard Specifications.

You may request, or the Engineer may order, changes to the WPC work. Changes may include the addition of new WPC practices. Additional WPC work will be paid for as extra work under Section 4-1.03D, "Extra Work," of the Standard Specifications.

The SWPPP must include sections as specified for the project risk level as follows:

1. For risk level 1:
  - 1.1. Schedule
  - 1.2. CSMP
2. For risk level 2:
  - 2.1. Schedule
  - 2.2. CSMP
  - 2.3. Adherence to Effluent Standards for NALs
  - 2.4. REAP
3. For risk level 3:
  - 3.1. Schedule
  - 3.2. CSMP
  - 3.3. Adherence to Effluent Standards for NALs and NELs
  - 3.4. REAP

The SWPPP must include WPC practices for:

1. Storm water and non-stormwater from areas outside of the job site related to project work activities such as:
  - 1.1. Staging areas
  - 1.2. Storage yards
  - 1.3. Access roads
2. Activities or mobile operations related to contractor obtained NPDES permits
3. Construction support facilities

The SWPPP must include a copy of permits obtained by the City such as Fish & Game permits, US Army Corps of Engineers permits, RWQCB 401 Certifications, and RWQCB Waste Discharge Requirements for Aerially Deposited Lead Reuse.

Amend the SWPPP annually and resubmit it by July 15th.

Amend the SWPPP if:

1. Changes in work activities could affect the discharge of pollutants
2. WPC practices are added by change order work
3. WPC practices are added at your discretion
4. Changes in the amount of disturbed soil are substantial
5. Objectives for reducing or eliminating pollutants in storm water discharges have not been achieved
6. There is a Permit violation

Whenever you amend the SWPPP, follow the same process specified for SWPPP approval.

Retain a printed copy of the approved SWPPP at the job site.

### ***SWPPP Schedule***

The SWPPP schedule must:

1. Describe when work activities will be performed that could cause the discharge of pollutants into storm water
2. Describe WPC practices associated with each construction phase
3. Identify soil stabilization and sediment control practices for disturbed soil areas

### ***Construction Site Monitoring Program (CSMP)***

#### ***General***

The QSD must prepare a CSMP as part of the SWPPP. The CSMP must be

developed before starting work and be revised to reflect current construction activities as necessary.

The CSMP must include sections for the project risk level as follows:

1. For risk level 1:
  - 1.1. Visual Monitoring
  - 1.2. SAP for Non-Visible Pollutants
2. For risk level 2:
  - 2.1. Visual Monitoring
  - 2.2. SAP for Non-Visible Pollutants
  - 2.3. SAP for sediment and turbidity
  - 2.4. SAP for pH
3. For risk level 3:
  - 3.1. Visual Monitoring
  - 3.2. SAP for Non-Visible Pollutants
  - 3.3. SAP for sediment and turbidity
  - 3.4. SAP for pH
  - 3.5. SAP for receiving waters
  - 3.6. SAP for temporary active treatment systems

### ***Visual Monitoring***

The WPC Manager must oversee the performance of visual inspections for qualifying rain events.

For each qualifying rain event, perform visual inspections and record observations during normal working hours as follows:

1. Record the time, date, and rain gauge reading
2. Observe:
  - 2.1. Within 2 days before the storm:
    - 2.1.1. Drainage areas for spills, leaks, or uncontrolled pollutants
    - 2.1.2. Proper implementation of WPC practices
    - 2.1.3. Storm water storage areas for leaks and adequate freeboard
  - 2.2. Every 24 hours during the storm:
    - 2.2.1. WPC practices for effective operation
    - 2.2.2. WPC practices needing maintenance and repair
  - 2.3. Within 2 days after the storm event:

- 2.3.1. Discharge locations
- 2.3.2. WPC practices to evaluate the design, implementation, and effectiveness
- 2.3.3. To identify where additional WPC practices may be needed

Perform non-stormwater discharge visual inspections as follows:

- 1. At least once during each of the following periods:
  - 1.1. January through March
  - 1.2. April through June
  - 1.3. July through September
  - 1.4. October through December
- 2. Observe flowing and contained storm water for the presence of floating and suspended materials, sheen on the surface, discoloration, turbidity, odors, and sources of observed pollutants
- 3. Observe the job site for the presence of authorized and unauthorized non-stormwater discharges and their sources

The WPC Manager must prepare visual inspection reports that include the following:

- 1. Name of personnel performing the inspection, inspection date, and date inspection report completed
- 2. Storm and weather conditions
- 3. Locations and observations
- 4. Corrective actions taken

Maintain visual inspections reports at the job site as part of the SWPPP.

### ***Sampling and Analysis Plan (SAP)***

#### ***General***

Include a SAP in the CSMP to monitor the effectiveness of WPC practices. The SAP must comply with the Preparation Manual.

Assign trained personnel to collect water quality samples. Document their training in the SAP.

Describe the following water quality sampling procedures in the SAP:

- 1. Sampling equipment
- 2. Sample preparation
- 3. Collection
- 4. Field measurement methods
- 5. Analytical methods
- 6. Quality assurance and quality control
- 7. Sample preservation and labeling

8. Collection documentation
9. Sample shipping
10. Chain of custody
11. Data management and reporting
12. Precautions from the construction site health and safety plan
13. Laboratory selection and certifications

Whenever assigned field personnel take samples, comply with the equipment manufacturer's recommendation for collection, analysis methods, and equipment calibration.

Samples taken for laboratory analysis must follow water quality sampling procedures and be analyzed by a State-certified laboratory under 40 CFR Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants."

The SAP must identify the State-certified laboratory, sample containers, preservation requirements, holding times, and analysis method. For a list of State-certified laboratories, go to:

<http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx>

Include procedure for sample collection during precipitation.

Retain water quality sampling documentation and analytical results with the SWPPP at the job site.

Show pollutant sampling locations on SWPPP drawings.

If discharges or sampling locations change because of changed work activities or knowledge of site conditions, amend the SAP.

If the project is risk level 2 or risk level 3, include procedures for collecting and analyzing at least 3 samples for each day of each qualifying rain event.

Describe the collection of effluent samples at all locations where the storm water is discharged off-site.

### ***Analytical Results and Evaluation***

Submit an electronic copy (in file format .xls, .txt, .csv, .dbs, or .mdb) and a printed copy of water quality analytical results, and quality assurance and quality control within 48 hours of field analysis sampling, and within 30 days for laboratory analysis. Also provide an evaluation of whether the downstream samples show levels of the tested parameter that are higher than the control sample.

Electronic water quality analysis results must have the following information:

1. Sample identification number
2. Contract number
3. Constituent

4. Reported value
5. Analytical method
6. Method detection limit
7. Reported limit

#### ***SAP for Non-Visible Pollutants***

The SAP must include a description of the sampling and analysis strategy for monitoring non-visible pollutants.

The SAP must identify potential non-visible pollutants present at the job site associated with any of the following:

1. Construction materials and waste
2. Existing contamination due to historical site usage
3. Application of soil amendments, including soil stabilization materials, with the potential to change pH or contribute toxic pollutants to storm water

SWPPP drawings must show the locations planned for storage and use of potential non-visible pollutants.

The SAP must include sampling procedures for the following conditions when observed during a storm water visual inspection. For each of the following, collect at least one sample for each qualifying storm event:

1. Materials or waste containing potential non-visible pollutants that are not stored under watertight conditions
2. Materials or waste containing potential non-visible pollutants that are stored under watertight conditions, but a breach, leakage, malfunction, or spill is observed; the leak or spill has not been cleaned up before precipitation; and material or waste could discharge non-visible pollutants to surface waters or drainage system
3. Chemical applications, including fertilizer, pesticide, herbicide, methyl methacrylate concrete sealant, or non-pigmented curing compound used during precipitation or within 24 hours preceding precipitation, and could discharge pollutants to surface waters or drainage system
4. Applied soil amendments, including soil stabilization materials that could change pH levels or contribute toxic pollutants to storm water runoff and discharge pollutants to surface waters or drainage system, unless available independent test data indicates acceptable concentrations of non-visible pollutants in the soil amendment
5. Storm water runoff from an area contaminated by historical usage of the site that could discharge pollutants to surface waters or drainage systems

The SAP must provide sampling procedures and schedule for:

1. Sample collection during the first 2 hours of each rain event that generate runoff

2. Sample collection during normal working hours
3. Each non-visible pollutant source
4. Uncontaminated control sample

The SAP must identify locations for sampling downstream and control samples, and reasons for selecting those locations. Select control sample locations where the sample will not come in contact with materials, waste, or areas associated with potential non-visible pollutants or disturbed soil areas.

***SAP for Sediment and Turbidity***

If the project is risk level 2 or risk level 3, sample and analyze for turbidity:

Parameter	Test Method	Detection Limit (Min)	Unit
Turbidity	Field test with calibrated portable instrument	1	NTU

If the project is risk level 3 and the turbidity NEL has been exceeded, sample and analyze for SSC:

Parameter	Test Method	Detection Limit (Min)	Unit
SSC	ASTM Method D3977-97	5	Mg/L

***SAP for pH***

If the project is risk level 2 or risk level 3, sample and analyze for pH:

Parameter	Test Method	Detection Limit (Min)	Unit
pH	Field test with calibrated portable instrument	0.2	pH units

***SAP for Receiving Waters***

If the project is risk level 3, describe procedures for obtaining samples from representative and accessible locations:

1. Upstream of the discharge point
2. Downstream of the discharge point

Show receiving water sampling locations on SWPPP drawings.

If there are several discharge points, describe procedures for obtaining samples from a single upstream and a single downstream location.

***Rain Event Action Plan (REAP)***

REAP work includes preparing and submitting REAP forms and monitoring weather forecasts. The WPC Manager must submit a REAP to protect the job

site at least 48 hours before a predicted rain event.

Prepare a REAP when the National Weather Service is predicting at least a 50 percent probability of precipitation within 72 hours.

For the REAP, use approved forms and include:

1. Site location
2. Risk level
3. Contact information including 24-hour emergency phone numbers for:
  - 3.1. WPC Manager
  - 3.2. Erosion and sediment control providers or subcontractors
  - 3.3. Storm water sampling providers or subcontractors
4. Storm Information
5. Construction phase information for:
  - 5.1. Highway Construction including active and inactive areas for work activities for building roads and structures
  - 5.2. Plant Establishment including maintenance on vegetation installed for final stabilization where areas are inactive
  - 5.3. Suspension where work activities are suspended and areas are inactive
6. Construction phase information including:
  - 6.1. Construction activities
  - 6.2. Subcontractors and trades on the job site
  - 6.3. Pre-storm activities including:
    - 6.3.1. Responsibilities of the WPC Manager
    - 6.3.2. Responsibilities of the crew and crew size
    - 6.3.3. Stabilization for active and inactive disturbed soil areas
    - 6.3.4. Stockpile management
    - 6.3.5. Corrective actions taken for deficiencies identified during pre-storm visual inspection
  - 6.4. Activities to be performed during storm events including:
    - 6.4.1. Responsibilities of the WPC Manager
    - 6.4.2. Responsibilities of the crew and crew size
    - 6.4.3. BMP maintenance and repair
  - 6.5. Description of flood contingency measures

You must have the REAP onsite at least 24 hours before a predicted rain event.

A printed copy of each REAP must be at the job site as part of the SWPPP.

Implement the REAP including mobilizing crews to complete activities no later

than 24 hours before precipitation occurs.

## **IMPLEMENTATION REQUIREMENTS**

### ***SWPPP Implementation***

Obtain, install, and maintain a rain gauge at the job site. Observe and record daily precipitation.

Monitor the National Weather Service Forecast Office on a daily basis. For forecasts, go to:

<http://www.srh.noaa.gov/forecast>

Whenever you or the Engineer identifies a deficiency in the implementation of the approved SWPPP:

1. Correct the deficiency immediately, unless the Engineer agrees to a later date for making the correction
2. Correct the deficiency before precipitation occurs

If you fail to correct the deficiency by the agreed date or before the onset of precipitation, the City may correct the deficiency and deduct the cost of correcting the deficiency from payment.

Continue SWPPP implementation during any temporary suspension of work activities.

Install WPC practices within 15 days or before predicted precipitation, whichever occurs first.

### ***Numeric Action Levels (NALs)***

If the project is risk level 2 or risk level 3, then it is subject to NALs:

Parameter	Test Method	Detection Limit (Min)	Unit	Numeric Action Level
pH	Field test with calibrated portable instrument	0.2	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	Field test with calibrated portable instrument	1	NTU	250 NTU

### ***Numeric Effluent Limits (NELs)***

If the project is risk level 3, then it is subject to NELs:

Parameter	Test Method	Detection Limit (Min)	Unit	Numeric Effluent Limit
pH	Field test with calibrated portable instrument	0.2	pH units	Lower NEL = 6.0 Upper NEL = 9.0
Turbidity	Field test with calibrated portable instrument	1	NTU	500 NTU

The storm event daily average for storms up to the 5-year, 24-hour storm, must not exceed the NEL for turbidity.

The daily average sampling results must not exceed the NEL for pH.

### ***Storm Water Sampling and Analysis Day***

Storm Water Sampling and Analysis Day work includes preparation, collection, analysis, and reporting of storm water samples for turbidity, pH, and other constituents. If the project is risk level 2 or risk level 3, and there is a qualified rain event that produces runoff, comply with the project's SAP for preparation, collection, analysis, and reporting of storm water samples. Collect:

1. Samples for each non-visible pollutant source and a corresponding uncontaminated control sample
2. Samples for turbidity, pH, and other constituents as specified
3. At least 3 samples for each day of each qualifying rain event
4. Samples for all locations where the storm water is discharged off-site

Perform sample collection during:

1. First 2 hours of each qualified rain event that produces runoff
2. Normal working hours

If the project is risk level 3, obtain receiving water samples.

You are not required to physically collect samples during dangerous weather conditions such as flooding or electrical storms.

If downstream samples show increased levels, assess WPC practices, site conditions, and surrounding influences to determine the probable cause for the increase.

### ***Inspection***

The WPC Manager must oversee inspections for WPC practices identified in the SWPPP:

1. Before a forecasted storm
2. After precipitation that causes site runoff
3. At 24-hour intervals during extended precipitation
4. On a predetermined schedule, a minimum of once a week

The WPC Manager must oversee daily inspections of:

1. Storage areas for hazardous materials and waste
2. Hazardous waste disposal and transporting activities
3. Hazardous material delivery and storage activities
4. WPC practices specified under "Construction Site Management" of these special provisions

The WPC Manager must use the Storm Water Site Inspection Report provided in the Preparation Manual.

The WPC Manager must prepare BMP status reports that include the following:

1. Location and quantity of installed WPC practices
2. Location and quantity of disturbed soil for the active or inactive areas

Within 24 hours of finishing the weekly inspection, the WPC Manager must submit:

1. Copy of the completed site inspection report
2. Copy of the BMP status report

## **REPORTING REQUIREMENTS**

### ***Storm Water Annual Report***

Storm Water Annual Report work includes certifications, monitoring and inspection results, and obtaining Storm Water Annual Report acceptance. The WPC Manager must prepare a Storm Water Annual Report. The report must:

1. Use an approved report format
2. Include project information including description and location
3. Include storm water monitoring information including:
  - 3.1. Summary and evaluation of sampling and analysis results including laboratory reports
  - 3.2. Analytical methods, reporting units, detections limits for analytical parameters
  - 3.3. Summary of corrective actions
  - 3.4. Identification of corrective actions or compliance activities that were not implemented
  - 3.5. Summary of violations
  - 3.6. Names of individuals performing storm water inspections and sampling
  - 3.7. Logistical information for inspections and sampling including location, date, time, and precipitation
  - 3.8. Visual observations and sample collection records

4. Include documentation on training for:
  - 4.1. Individuals responsible for NPDES permit compliance
  - 4.2. Individuals responsible for BMP installation, inspection, maintenance, and repair
  - 4.3. Individuals responsible for preparing, revising, and amending the SWPPP

### ***NAL Exceedance Report***

If the project is risk level 2 or risk level 3 and an effluent sample exceeds a NAL, notify the Engineer and submit a NAL Exceedance Report no later than 48 hours after the conclusion of the storm event. The report must:

1. Include the following field sampling results and inspections:
  - 1.1. Analytical methods, reporting units, and detection limits
  - 1.2. Date, location, time of sampling, visual observation and measurements
  - 1.3. Quantity of precipitation of the storm event
2. Description of BMPs and corrective actions taken to manage NAL exceedance

### ***NEL Violation Report***

If the project is risk level 3 and an NEL is exceeded, notify the Engineer and submit a NEL Violation Report within 6 hours. The report must:

1. Include the following field sampling results and inspections:
  - 1.1. Analytical methods, reporting units, and detection limits
  - 1.2. Date, location, time of sampling, visual observations and measurements
  - 1.3. Quantity of precipitation of the storm event
2. Description of BMPs and corrective actions taken to manage NEL exceedance

If the project is risk level 2 or risk level 3, submit all sampling results to the Engineer no later than 48 hours after the conclusion of a storm event.

### **PAYMENT**

The contract lump sum price paid for prepare storm water pollution prevention plan includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing, obtaining approval of, and amending the SWPPP and CSMP, inspecting water pollution control practices, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

For projects with 60 working days or less, payments for SWPPP are made as

follows:

1. After the Engineer approves the SWPPP, the City includes up to 75 percent of the bid item price in the monthly progress estimate
2. After contract acceptance, the Department pays for the remaining percentage of the bid item price

For projects with more than 60 working days, payments for SWPPP are made as follows:

1. After the Engineer approves the SWPPP, the City includes up to 50 percent of the bid item price in the monthly progress estimate
2. The City pays 40 percent of the bid item price over the life of the contract
3. After contract acceptance, the City pays for the remaining 10 percent of the bid item

If risk level 2 or 3, the City pays \$500 for each Rain Event Action Plan submitted. The contract unit price paid for Rain Event Action Plan includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparation and submittal of REAP forms, and monitoring weather forecasts as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The City does not adjust payment for an increase or decrease in the quantity of rain event action plans submitted. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

The City pays \$2,000 for each Storm Water Annual Report submitted. The contract unit price paid for Storm Water Annual Report includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparation and submittal of Storm Water Annual Report as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The City does not adjust payment for an increase or decrease in the quantity of storm water annual reports submitted. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

The work to complete the final Storm Water Annual Report contract item is excluded from Section 7-1.17, "Acceptance of Contract," of the Standard Specifications.

If risk level 2 or 3, the contract unit price paid for storm water sampling and analysis day includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparation, collection, analysis, and reporting of storm water samples per qualifying rain

event as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The City does not adjust payment for an increase or decrease in the quantity of storm water sampling and analysis day. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

You may request or the Engineer may order laboratory analysis of storm water samples. Laboratory analysis of storm water samples will be paid for as extra work under Section 4-1.03D, "Extra Work," of the Standard Specifications.

The City does not pay for the preparation, collection, laboratory analysis, and reporting of storm water samples for non-visible pollutants if WPC practices are not implemented before precipitation or if a failure of a WPC practice is not corrected before precipitation.

The City does not pay for implementation of WPC practices in areas outside the City right-of-way not specifically provided for in the plans or in the special provisions.

The City does not pay for WPC practices installed at your construction support facilities.

WPC practices for which there are separate bid items of work are measured and paid for as those bid items of work.

For each failure to submit a completed Storm Water Annual Report, the City withholds \$10,000. This withhold is in addition to other withholds under Section 9-1.07E(3) "Performance Failure Withholds," of the Standard Specifications.

Each failure to comply with any part of these special provisions and each failure to implement water pollution control practices are considered separate performance failures.

### **1-05 Lead Compliance Plan**

Prepare a work plan to prevent or minimize worker exposure to lead while managing and handling earth materials, paint system debris, traffic stripe residue, and pavement marking residue containing lead. Regulations containing specific Cal/OSHA requirements when working with lead include 8 CA Code of Regs § 1532.1.

The plan must contain the items listed in 8 CA Code of Regs § 1532.1(e)(2)(B). Before submittal, a CIH must sign and seal the plan. Submit the plan at least 7 days before starting any activity that presents the potential for lead exposure.

The Engineer notifies you of the acceptability of the plan within 4 business days of receipt.

Before starting any activity that presents the potential for lead exposure to employees who have no prior training, including State employees, provide a safety training program to these employees that complies with 8 CA Code of Regs § 1532.1 and your lead compliance program.

Submit copies of air monitoring or job site inspection reports made by or under the direction of the CIH under 8 CA Code of Regs § 1532.1 within 10 days after the date of monitoring or inspection.

Supply personal protective equipment, training, and washing facilities required by your lead compliance plan for 5 State employees.

#### **PAYMENT**

The contract lump sum price paid for lead compliance plan includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing and implementing the plan as specified in this section.

#### **1-06 Mobilization**

Mobilization shall conform to the provisions in Section 11, "Mobilization," of the Standard Specifications and these special provisions.

After completion of the contract items of work, except the warranty, the amount, if any, of the contract item price for mobilization in excess of 10 percent of the original contract amount will be included for payment in the proposed interim estimate in conformance with the provisions in "Interim Estimate and Claims" of these special provisions.

#### **1-07 Construction Area Signs**

Construction area signs for temporary traffic control shall be furnished, installed, maintained, and removed when no longer required in conformance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions. Attention is directed to "Furnish Sign" of these special provisions.

Attention is directed to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. Type II retroreflective sheeting shall not be used on construction area sign panels. Type III, IV, VII, VIII, or IX retroreflective sheeting shall be used for stationary mounted

construction area sign panels.

Unless otherwise shown on the plans or specified in these special provisions, the color of construction area warning and guide signs shall have black legend and border on orange background.

Orange background on construction area signs shall be fluorescent orange.

Repair to construction area sign panels will not be allowed, except when approved by the Engineer. At nighttime under vehicular headlight illumination, sign panels that exhibit irregular luminance, shadowing or dark blotches shall be immediately replaced at the Contractor's expense.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least 2 business days, but not more than 14 days, prior to commencing excavation for construction area sign posts. The regional notification centers include, but are not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert	811

Excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes. The post hole diameter, if backfilled with portland cement concrete, shall be at least 4 inches greater than the longer dimension of the post cross section.

Construction area signs placed within 15 feet from the edge of the travel way shall be mounted on stationary mounted sign supports as specified in "Construction Area Traffic Control Devices" of these special provisions.

The Contractor shall maintain accurate information on construction area signs. Signs that are no longer required shall be immediately covered or removed. Signs that convey inaccurate information shall be immediately replaced or the information shall be corrected. Covers shall be replaced when they no longer cover the signs properly. The Contractor shall immediately restore to the original position and location any sign that is displaced or overturned, from any cause, during the progress of work.

The term "construction area signs" shall include temporary object markers required for the direction of public traffic through or around the work during construction. Object markers listed or designated on the plans as construction area signs shall be considered to be signs and shall be furnished, erected, maintained, and removed by the Contractor in the same manner specified for

construction area signs.

Object markers shall be stationary mounted on wood or metal posts in conformance with the details shown on the plans and the provisions in Section 82, "Markers and Delineators," of the Standard Specifications.

#### **PAYMENT**

The contract lump sum price paid for Construction Area Signs includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in Construction Area Signs as specified in this section.

### **1-08 Construction Area Traffic Control Devices**

Flagging, signs, and temporary traffic control devices furnished, installed, maintained, and removed when no longer required shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Category 1 temporary traffic control devices are defined as small and lightweight (less than 100 pounds) devices. These devices shall be certified as crashworthy by crash testing, crash testing of similar devices, or years of demonstrable safe performance. Category 1 temporary traffic control devices include traffic cones, plastic drums, portable delineators, and channelizers.

If requested by the Engineer, the Contractor shall provide written self-certification for crashworthiness of Category 1 temporary traffic control devices at least 5 business days before beginning any work using the devices or within 2 business days after the request if the devices are already in use. Self-certification shall be provided by the manufacturer or Contractor and shall include the following:

- A. Date
- B. Federal Aid number (if applicable)
- C. Contract number, district, county, route and post mile of project limits
- D. Company name of certifying vendor, street address, city, state and zip code
- E. Printed name, signature and title of certifying person; and
- F. Category 1 temporary traffic control devices that will be used on the project.

The Contractor may obtain a standard form for self-certification from the Engineer.

Category 2 temporary traffic control devices are defined as small and lightweight (less than 100 pounds) devices that are not expected to produce significant vehicular velocity change, but may cause potential harm to impacting vehicles. Category 2 temporary traffic control devices include barricades and portable sign supports.

Category 2 temporary traffic control devices shall be on the Federal Highway Administration's (FHWA) list of Acceptable Crashworthy Category 2 Hardware for Work Zones. This list is maintained by FHWA and can be located at:

[http://safety.fhwa.dot.gov/roadway\\_dept/policy\\_guide/road\\_hardware/listing.cfm?code=workzone](http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/listing.cfm?code=workzone)

The Department also maintains this list at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/pdf/Category2.pdf>

Category 2 temporary traffic control devices that have not received FHWA acceptance shall not be used. Category 2 temporary traffic control devices in use that have received FHWA acceptance shall be labeled with the FHWA acceptance letter number and the name of the manufacturer. The label shall be readable and permanently affixed by the manufacturer. Category 2 temporary traffic control devices without a label shall not be used.

If requested by the Engineer, the Contractor shall provide a written list of Category 2 temporary traffic control devices to be used on the project at least 5 business days before beginning any work using the devices or within 2 business days after the request if the devices are already in use.

Category 3 temporary traffic control devices consist of temporary traffic-handling equipment and devices that weigh 100 pounds or more and are expected to produce significant vehicular velocity change to impacting vehicles. Temporary traffic-handling equipment and devices include crash cushions, truck-mounted attenuators, temporary railing, temporary barrier, and end treatments for temporary railing and barrier.

Type III barricades may be used as sign supports if the barricades have been successfully crash tested, meeting the NCHRP Report 350 criteria, as one unit with a construction area sign attached.

Category 3 temporary traffic control devices shall be shown on the plans or on the Department's Highway Safety Features list. This list is maintained by the Division of Engineering Services and can be found at:

[http://www.dot.ca.gov/hq/esc/approved\\_products\\_list/](http://www.dot.ca.gov/hq/esc/approved_products_list/)

Category 3 temporary traffic control devices that are not shown on the plans or not listed on the Department's Highway Safety Features list shall not be used.

Full compensation for providing self-certification for crashworthiness of Category 1 temporary traffic control devices and for providing a list of Category 2 temporary traffic control devices used on the project shall be considered as included in the prices paid for the various items of work requiring the use of the Category 1 or Category 2 temporary traffic control devices and no additional compensation will be allowed therefor.

### **1-09 *Maintaining Traffic***

Maintaining traffic shall conform to the provisions in Sections 7-1.08, "Public Convenience," Section 7-1.09, "Public Safety," and Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Closure is defined as the closure of a traffic lane or lanes, including shoulder, ramp or connector lanes, within a single traffic control system.

The project streets are not to be closed to traffic without prior approval of the City Engineer. The Contractor shall maintain at least one 12 foot wide travel lane open in both directions during construction. Prior to commencement of construction the Contractor shall provide to the Engineer a plan and schedule for traffic control.

Closures shall conform to the provisions in "Traffic Control System for Lane Closure" of these special provisions.

Work that interferes with public traffic shall be limited to the hours when lane closures are allowed, except for work required under Sections 7-1.08, "Public Convenience," and Section 7-1.09, "Public Safety."

Designated legal holidays are: January 1st, the third Monday in January, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, November 11th, Thanksgiving Day, and December 25th. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When a designated legal holiday falls on a Saturday, the previous Friday shall be a designated legal holiday. When November 11th falls on a Saturday, the preceding Friday shall be a designated legal holiday.

Local authorities shall be notified at least 5 business days before work begins. The Contractor shall cooperate with local authorities to handle traffic through the work area and shall make arrangements to keep the work area clear of

parked vehicles.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders including sections closed to public traffic.

Personal vehicles of the Contractor's employees shall not be parked within the right of way except in the areas approved by the Engineer.

When work vehicles or equipment are parked within 6 feet of a traffic lane to perform active construction, the shoulder area shall be closed with fluorescent orange traffic cones or portable delineators placed 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. A minimum of 9 traffic cones or portable delineators shall be used for the taper. A W20-1 (ROAD WORK AHEAD) or W21-5b (RIGHT/LEFT SHOULDER CLOSED AHEAD) or C24(CA) (SHOULDER WORK AHEAD) sign shall be mounted on a crashworthy portable sign support with flags. The sign shall be placed where designated by the Engineer. The sign shall be a minimum of 48" x 48" in size. The Contractor shall immediately restore to the original position and location a traffic cone or delineator that is displaced or overturned, during the progress of work.

A minimum of one traffic lane in each direction of travel, not less than 10 feet wide, shall be open for use by public traffic unless otherwise noted in the project plans.

Full compensation for furnishing, erecting, maintaining, and removing and disposing of the C43(CA), SC6-4(CA), W20-1, W21-5b, and C24(CA) signs shall be considered as included in the contract lump sum price paid for construction area signs and no additional compensation will be allowed therefor.

Pedestrian access facilities shall be provided through construction areas within the right of way as shown on the plans and as specified herein. Pedestrian walkways shall be surfaced with hot mix asphalt, portland cement concrete or timber. The surface shall be skid resistant and free of irregularities. Hand railings shall be provided on each side of pedestrian walkways as necessary to protect pedestrian traffic from hazards due to construction operations or adjacent vehicular traffic. Protective overhead covering shall be provided as necessary to insure protection from falling objects and drip from overhead structures.

In addition to the required openings through falsework, pedestrian facilities shall be provided during pile driving, footing, wall, and other bridge construction operations. At least one walkway shall be available at all times. If the Contractor's operations require the closure of one walkway, then another walkway shall be provided nearby, off the traveled roadway.

Railings shall be constructed of wood, S4S, and shall be painted white. Railings and walkways shall be maintained in good condition. Walkways shall be kept clear of obstructions.

Full compensation for providing pedestrian facilities 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.

### **1-10 Traffic Control System**

A traffic control system shall consist of closing traffic lanes in conformance with the details shown on the plans, the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, the provisions under "Maintaining Traffic" and "Construction Area Signs" of these special provisions, and these special provisions.

The provisions in this section will not relieve the Contractor from the responsibility to provide additional devices or take measures as may be necessary to comply with the provisions in Section 7-1.09, "Public Safety," of the Standard Specifications.

During traffic stripe operations and pavement marker placement operations using bituminous adhesive, traffic shall be controlled, at the option of the Contractor, with either stationary or moving lane closures. During other operations, traffic shall be controlled with stationary lane closures. Attention is directed to the provisions in Section 84-1.04, "Protection From Damage," and Section 85-1.06, "Placement," of the Standard Specifications.

If components in the traffic control system are displaced or cease to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair the components to the original condition or replace the components and shall restore the components to the original location.

#### ***Payment***

The contract lump sum price paid for traffic control system shall include full compensation for furnishing all labor (including flagging costs), materials (including signs), tools, equipment, and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of the components of the traffic control system and for furnishing and operating the pilot car, (including driver, radios, other equipment, and labor required), as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Traffic control system required by work which is classed as extra work, as provided in Section 4-1.03D of the Standard Specifications, will be paid for as a part of the extra work.

### **1-11 Temporary Barricades (Type III)**

Temporary Barricades (Type III) shall be furnished, placed and maintained at the locations shown on the plans, specified in the Standard Specifications or in these special provisions or where designated by the Engineer. Temporary barricades shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Attention is directed to "Prequalified and Tested Signing and Delineation Materials" of these special provisions regarding retroreflective sheeting for barricades.

Construction area sign and marker panels conforming to the provisions in Section 12-3.06, "Construction Area Signs," of the Standard Specifications shall be installed on barricades in a manner determined by the Engineer at the locations shown on the plans.

Sign panels for construction area signs and marker panels installed on barricades shall conform to the provisions in Section 12-3.06A, "Stationary Mounted Signs," of the Standard Specifications.

Full compensation for furnishing, installing, maintaining, and removing construction area signs and marker panels on barricades shall be considered as included in the contract unit price paid for the type of barricade involved and no separate payment will be made therefor.

Barricades shown on the plans as part of a traffic control system will be paid for as provided in "Traffic Control System for Lane Closure" of these special provisions and will not be included in the count for payment of barricades.

### **1-12 Type III Barricades**

Type III Barricade shall be furnished, placed and maintained at the locations shown on the plans, specified in the Standard Specifications or in these special provisions or where designated by the Engineer. Barricades shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Attention is directed to "Prequalified and Tested Signing and Delineation Materials" of these special provisions regarding retroreflective sheeting for

barricades.

Sign panels for construction area signs and marker panels installed on barricades shall conform to the provisions in Section 12-3.06A, "Stationary Mounted Signs," of the Standard Specifications.

Full compensation for furnishing and installing signs and marker panels on barricades shall be considered as included in the contract unit price paid for the type of barricade involved and no separate payment will be made therefor.

#### *Measurement and Payment*

Full compensation for Type III Barricades including furnishing, placing, maintaining, removing, and repairing or replacing defective or damaged barricades is included in the contract price paid for each Type III Barricade and no separate payment will be made therefor.

### **1-13 Temporary Pavement Delineation**

Temporary pavement delineation shall be furnished, placed, maintained, and removed in conformance with the provisions in Section 12-3.01, "General," of the Standard Specifications and these special provisions. Nothing in these special provisions shall be construed as reducing the minimum standards specified in the California MUTCD or as relieving the Contractor from the responsibilities specified in Section 7-1.09, "Public Safety," of the Standard Specifications.

#### *General*

When the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place before opening the traveled way to public traffic. Lane line or centerline pavement delineation shall be provided for traveled ways open to public traffic.

The Contractor shall perform the work necessary to establish the alignment of temporary pavement delineation, including required lines or markers. Surfaces to receive application of paint shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation, or as determined by the Engineer.

Temporary pavement markers, including underlying adhesive that are applied to the final layer of surfacing or existing pavement to remain in place or that

conflicts with a subsequent or new traffic pattern for the area shall be removed when no longer required for the direction of public traffic, as determined by the Engineer.

#### ***Temporary Pavement Marking (Paint)***

Temporary pavement marking consisting of painted pavement marking shall be applied and maintained at the locations shown on the plans. The painted temporary pavement marking shall be complete in place at the location shown before opening the traveled way to public traffic. Removal of painted temporary pavement marking will not be required.

Temporary painted pavement marking shall conform to the provisions in "Paint Traffic Stripe and Pavement Marking" of these special provisions, except for payment. At the option of the Contractor, either one or 2 coats shall be applied regardless whether on new or existing pavement.

#### ***Temporary Traffic Stripe (Paint)***

The painted temporary traffic stripe shall be complete in place at the location shown before opening the traveled way to public traffic. Removal of painted temporary traffic stripe will not be required.

Temporary painted traffic stripe shall conform to the provisions in "Paint Traffic Stripe and Pavement Marking" of these special provisions. At the option of the Contractor, either one or 2 coats shall be applied regardless of whether on new or existing pavement.

#### **Temporary Laneline and Centerline Delineation**

When lanelines or centerlines are obliterated and temporary pavement delineation to replace the lines is not shown on the plans, the minimum laneline and centerline delineation to be provided for that area shall be temporary pavement markers placed at longitudinal intervals of not more than 24 feet. The temporary pavement markers shall be the same color as the laneline or centerline the pavement markers replace. Temporary pavement markers shall be, at the option of the Contractor, one of the temporary pavement markers listed for short term day/night use (14 days or less) or long term day/night use (180 days or less) in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. The temporary pavement markers shall be placed in conformance with the manufacturer's instructions. Temporary pavement markers for long term day/night use (180 days or less) shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used to place the temporary pavement

markers in areas where removal of the temporary pavement markers will be required.

Temporary laneline or centerline delineation consisting entirely of temporary pavement markers listed for short term day/night use (14 days or less), shall be placed on longitudinal intervals of not more than 24 feet and shall be used for a maximum of 14 days on lanes opened to public traffic. Before the end of the 14 days the permanent pavement delineation shall be placed. If the permanent pavement delineation is not placed within the 14 days, the Contractor shall replace the temporary pavement markers and provide additional temporary pavement delineation and shall bear the cost thereof. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent pavement delineation for the area, as determined by the Engineer.

#### Temporary Edgeline Delineation

When edgelines are obliterated and temporary pavement delineation to replace those edgelines is not shown on the plans, the edgeline delineation to be provided for those areas adjacent to lanes open to public traffic shall be as follows:

1. Temporary pavement delineation for right edgelines shall, at the option of the Contractor, consist of either a solid 4-inch wide traffic stripe of the same color as the stripe it replaces, traffic cones, portable delineators or channelizers placed at longitudinal intervals not to exceed 100 feet.
2. Temporary pavement delineation for left edgelines shall, at the option of the Contractor, consist of either solid 4-inch wide traffic stripe of the same color as the stripe it replaces, traffic cones, portable delineators or channelizers placed at longitudinal intervals not to exceed 100 feet or temporary pavement markers placed at longitudinal intervals of not more than 6 feet.

Where removal of the 4-inch wide traffic stripe will not be required, painted traffic stripe conforming to the provisions of "Temporary Traffic Stripe (Paint)" of these special provisions may be used.

The lateral offset for traffic cones, portable delineators or channelizers used for temporary edgeline delineation shall be as determined by the Engineer. If traffic cones or portable delineators are used as temporary pavement delineation for edgelines, the Contractor shall provide personnel to remain at the project site to maintain the cones or delineators during the hours of the day that the portable delineators are in use.

Channelizers used for temporary edgeline delineation shall be the surface mounted type and shall be orange in color. Channelizer bases shall be cemented to the pavement in the same manner provided for cementing pavement markers to pavement in "Pavement Markers" of these special provisions, except epoxy adhesive shall not be used to place channelizers on the top layer of pavement. Channelizers shall be, at the Contractor's option, one of the surface mount types (36 inch) listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

Temporary edgeline delineation shall be removed when no longer required for the direction of public traffic as determined by the Engineer.

Temporary striping from Stage 1 construction in conflict with Stage 2 construction shall be removed.

### ***Measurement and Payment***

Temporary traffic stripe and temporary pavement marking shown on the plans will be measured and paid for in the same manner specified for paint traffic stripe and paint pavement marking in Section 84-3.06, "Measurement," and Section 84-3.07, "Payment," of the Standard Specifications.

Temporary pavement markers shown on the plans will be measured and paid for by the unit in the same manner specified for retroreflective pavement markers in Section 85-1.08, "Measurement," and Section 85-1.09, "Payment," of the Standard Specifications.

Full compensation for furnishing, placing, maintaining, and removing the temporary pavement markers (including underlying adhesive, layout (dribble) lines to establish alignment of temporary pavement markers or used for temporary laneline and centerline delineation ) for those areas where temporary laneline and centerline delineation is not shown on the plans and for providing equivalent patterns of permanent traffic lines for those areas when required, shall be considered as included in the contract prices paid for the items of work that obliterated the laneline and centerline pavement delineation and no separate payment will be made therefor.

Full compensation for furnishing, placing, maintaining, and removing temporary edgeline delineation not shown on the plans shall be considered as included in the contract prices paid for the items of work that obliterated the edgeline pavement delineation and no separate payment will be made therefor. Full compensation for removing temporary striping in conflict between stages of work shall be considered as included in the contract prices paid for the various items of work and no separate payment will be made therefor.

The quantity of channelizers used as temporary edgeline delineation will not be included in the quantity of channelizer (surface mounted) to be paid for.

## **1-14 Portable Changeable Message Signs**

### **Summary**

Work includes furnishing, placing, operating, maintaining, and removing portable changeable message signs. Comply with Section 12-3.12 "Portable Changeable Message Signs," of the Standard Specifications.

### **Definitions**

**useable shoulder area:** Paved or unpaved contiguous surface adjacent to the traveled way with:

1. Sufficient weight bearing capacity to support portable changeable message sign
2. Slope not greater than 6:1 (horizontal:vertical)

### **Submittals**

Upon request, submit a Certificate of Compliance for each portable changeable message sign under Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

### **Quality Control and Assurance**

Comply with the manufacturer's operating instructions for portable changeable message sign.

Approaching drivers must be able to read the entire message for all phases at least twice at the posted speed limit before passing portable changeable message sign. You may use more than 1 portable changeable message sign to meet this requirement.

Only display the message shown on the plans or ordered by the Engineer or specified in these special provisions.

### **Materials**

Portable changeable message sign must have 24-hour timer control or remote control capability.

The text of the message displayed on portable changeable message sign must not

scroll, or travel horizontally or vertically across the face of the message panel.

### ***Construction***

Continuously repeat the entire message in no more than 2 phases of at least 3 seconds per phase.

If useable shoulder area is at least 15 feet wide, the displayed message on portable changeable message sign must be minimum 18-inch character height. If useable shoulder area is less than 15 feet wide, you may use a smaller message panel with minimum 12-inch character height to prevent encroachment in the traveled way.

Start displaying the message on portable changeable message sign 30 minutes before closing the lane.

Place portable changeable message sign in advance of the first warning sign for:

1. Each stationary lane closure
2. Each lane closure
3. Each speed reduction zone

For 5 days starting on the day of signal activation, place 1 portable changeable message sign in each direction of travel and display the message, "SIGNAL AHEAD -- PREPARE TO STOP."

Place portable changeable message sign as far from the traveled way as practicable where it is legible to traffic and does not encroach on the traveled way. Place portable changeable sign before or at the crest of vertical roadway curvature where it is visible to approaching traffic. Avoid placing portable changeable message sign within or immediately after horizontal roadway curvature. Where possible, place portable changeable message sign behind guardrail or temporary railing (Type K).

Except where placed behind guardrail or temporary railing (Type K) use traffic control for shoulder closure to delineate portable changeable message sign. Remove portable changeable message sign when not in use.

### ***Measurement and Payment***

Full compensation for portable changeable message signs, including furnishing, placing, operating, modifying messages, maintaining, transporting from location to location, removing, and repairing or replacing defective or damaged portable changeable message signs is included in the contract lump sum price paid for traffic control system and no separate payment will be made therefor.

### **1-15 Channelizer (Surface Mounted)**

Channelizers (Surface Mounted) shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Channelizers shall conform to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

When no longer required for the work as determined by the Engineer, channelizers and underlying adhesive used to cement the channelizer bases to the pavement shall be removed. Removed channelizers and adhesive shall become the property of the Contractor and shall be removed from the site of work.

#### ***Measurement and Payment***

The contract price paid for each Channelizers (Surface Mounted), including furnishing, placing, maintaining, relocating from location to location, removing, and repairing or replacing defective or damaged channelizers and for furnishing all labor, materials, tools, equipment, and incidentals, shall be included in price paid for each Channelizer (Surface Mounted) and no additional payment will be made therefor.

### **1-16 Existing Highway Facilities**

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

#### ***Remove Fence***

Existing fence, where shown on the plans to be removed, shall be removed in accordance with Section 15-2.05B in the State Standard Specifications and disposed of.

Existing concrete posts or steel foundation tubes shall be completely removed and disposed of. The removal of masonry bricks at the base of fences shall be included with this pay item.

The contract linear foot price paid for "Remove Fence" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing of the fence and foundations, as shown on the plans, as specified in the Standard

Specifications and these special provisions, and as directed by the Engineer.

Full compensation for removing concrete posts or steel foundation tubes shall be considered as included in the contract price paid per linear foot for remove fence and no separate payment will be made thereof.

### ***Remove Yellow Traffic Stripe and Pavement Marking (Hazardous Waste)***

#### ***Summary***

This work includes removing existing yellow thermoplastic and yellow painted traffic stripe and pavement marking at the locations shown on the plans. The residue from the removal of this material is a hazardous waste.

Residue from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking contains lead chromate. The average lead concentration is greater than or equal to 1000 mg/kg total lead or 5 mg/l soluble lead. When applied to the roadway, the yellow thermoplastic and yellow painted traffic stripe and pavement marking contained as much as 2.6 percent lead. Residue produced from the removal of this yellow thermoplastic and yellow painted traffic stripe and pavement marking contains heavy metals in concentrations that exceed thresholds established by the Health and Safety Code and 22 CA Code of Regs. For bidding purposes, assume that the residue is not regulated under the Federal Resource Conservation and Recovery Act (RCRA), 42 USC § 6901 et seq. Yellow thermoplastic and yellow paint may produce toxic fumes when heated.

#### ***Submittals***

**Lead Compliance Plan:** Submit a lead compliance plan under Section 7-1.07, "Lead Compliance Plan," of the Standard Specifications.

**Work Plan:** Submit a work plan for the removal, containment, storage, and disposal of yellow thermoplastic and yellow painted traffic stripe and pavement marking for acceptance not less than 15 days prior to the start of the removal operations. The work plan must include:

1. Objective of the operation
2. Removal equipment
3. Type of hazardous waste storage containers
4. Container storage location and how it will be secured
5. Hazardous waste sampling protocol and QA/QC requirements and procedures
6. Qualifications of sampling personnel
7. Analytical lab that will perform the analyses
8. CA Department of Toxic Substances Control (DTSC) registration certificate and California Highway Patrol (CHP) Biennial Inspection of Terminals (BIT) Program compliance documentation of the hazardous waste hauler that will

- transport the hazardous waste
9. Disposal site that will accept the hazardous waste residue

The Engineer will review the work plan within 5 business days of receipt. Do not perform work that generates hazardous waste residue until the work plan has been accepted by the Engineer. The Engineer's review and acceptance does not waive any contract requirements and does not relieve the Contractor from complying with Federal, State, and local laws, regulations, and requirements. Correct any rejected work plan and resubmit a corrected work plan within 5 business days of notification by the Engineer; at which time a new review period of 5 business days will begin.

**Analytical Test Results:** Submit analytical test results of the residue from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking, including chain of custody documentation, for review and acceptance before:

1. Requesting the Engineer's signature on the waste profile requested by the disposal facility
2. Requesting the Engineer obtain an EPA ID no. for disposal
3. Removing the residue from the site

**United States Environmental Protection Agency Identification Number**

**Request:** Submit a request for the U.S. EPA ID no. when the Engineer accepts analytical test results documenting that residue from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking is a hazardous waste.

**Disposal Documentation:** Submit receiving landfill documentation of proper disposal within 5 business days of residue transport from the project.

**Construction**

Where grinding or other approved methods are used to remove yellow thermoplastic and yellow painted traffic stripe and pavement marking that will produce a hazardous waste residue, the removed residue, including dust, must be contained and collected immediately. Use a HEPA filter-equipped vacuum attachment operated concurrently with the removal operations or other equally effective approved methods for collection of the residue.

Store hazardous waste residue in labeled and covered containers. Labels must comply with the provisions of 22 CA Code of Regs §§66262.31 and 66262.32. Mark labels with:

1. Date the hazardous waste is generated
2. The words "Hazardous Waste"
3. Composition and physical state of the hazardous waste (for example,

- asphalt grindings with thermoplastic or paint)
4. The word "Toxic"
  5. Name, address, and telephone no. of the Engineer
  6. Contract no.
  7. Contractor or subcontractor name

Use metal containers approved by the U.S. Department of Transportation for the transportation and temporary storage of the removed residue. Handle the containers such that no spillage occurs. Store containers in a secured enclosure. Acceptable secure enclosures include a locked chain link fenced area or a lockable shipping container located within the project limits until disposal as approved.

Make necessary arrangements to test the yellow thermoplastic and yellow paint hazardous waste residue as required by the disposal facility and these special provisions. Testing must include, at a minimum:

1. Total lead by EPA Method 6010C
2. Total chromium by US EPA Method 7000 series
3. Soluble lead by California Waste Extraction Test
4. Soluble chromium by California Waste Extraction Test
5. Soluble lead by Toxicity Characteristic Leaching Procedure
6. Soluble chromium by Toxicity Characteristic Leaching Procedure

From the 1st 220 gallons of hazardous waste or portion thereof if less than 220 gallons of hazardous waste are produced, a minimum of 4 randomly selected samples must be taken and analyzed individually. Samples must not be composited. From each additional 880 gallons of hazardous waste or portion thereof if less than 880 gallons are produced, a minimum of 1 additional random sample must be taken and analyzed. Use chain of custody procedures consistent with Chapter 9 of U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) while transporting samples from the project to the laboratory. Each sample must be homogenized before analysis by the laboratory performing the analyses. A sample aliquot sufficient to cover the amount necessary for the total and the soluble analyses must then be taken. This aliquot must be homogenized a 2nd time and the total and soluble analyses run on this aliquot. The homogenization process must not include grinding of the samples. Submit the name and location of the disposal facility that will be accepting the hazardous waste and the analytical laboratory along with the testing requirements not less than 5 business days before the start of removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking. The analytical laboratory must be certified by the CA Department of Public Health Environmental Laboratory Accreditation Program for all analyses to be performed.

After the Engineer accepts the analytical test results, dispose of yellow

thermoplastic and yellow paint hazardous waste residue at a California Department of Toxic Substance Control permitted Class 1 disposal facility located in CA under the requirements of the disposal facility operator within \_\_\_ days after accumulating 220 pounds of residue and dust.

If less than 220 pounds of hazardous waste residue and dust is generated in total, it must be disposed of within \_\_\_ days after the start of accumulation of the residue and dust.

Use a hazardous waste manifest and a transporter registered with the CA Department of Toxic Substance Control and in compliance with the CHP BIT Program. The Engineer will obtain the U.S. EPA ID no. and will sign all manifests as the generator within 2 business days of receiving and accepting the analytical test results and receiving your request for the U.S. EPA ID no. If analytical test results demonstrate that the residue is a non-hazardous waste and the Engineer agrees, dispose of the residue at an appropriately permitted Class II or Class III facility under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

#### **Measurement and Payment**

The contract price paid per linear foot for remove yellow thermoplastic traffic stripe and remove yellow painted traffic stripe or per square foot for remove yellow thermoplastic pavement marking and remove yellow painted pavement marking includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved in removal, containment, storage, and disposal, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for (1) work plan for the removal, containment, storage, and disposal of yellow thermoplastic and yellow painted traffic stripe and pavement marking hazardous waste residue, (2) analytical test results, (3) US EPA ID no. request, and (4) receiving landfill documentation of proper disposal are included in the contract prices paid per linear foot for remove yellow thermoplastic traffic stripe and remove yellow painted traffic stripe or per square foot for remove yellow thermoplastic pavement marking and remove yellow painted pavement marking and no separate payment will be made therefor.

Additional disposal costs for hazardous waste residue regulated under RCRA, as determined by test results, will be paid for as extra work as specified in Section 4-1.03D, "Extra Work," of the Standard Specifications.

If analytical test results demonstrate that the residue is a non-hazardous waste and the Engineer agrees to disposal at a non-hazardous waste disposal facility,

no cost adjustment will be made.

### ***Remove Traffic Stripe and Pavement Marking***

This work includes removing existing traffic stripe and pavement marking at the locations shown on the plans.

Payment shall be at the contract unit price bid per linear foot and shall include full compensation for furnishing all labor, material, tools and equipment and incidentals and for doing all work involved in Remove Traffic Stripe and Pavement Marking as shown on the plans, as specified in these special provisions and as directed by the Engineer.

### ***Remove Pavement Marker***

Existing pavement markers, including underlying adhesive, when no longer required for traffic lane delineation as determined by the Engineer, shall be removed and disposed of.

### ***Remove Roadside Sign***

Existing roadside signs, at those locations shown on the plans to be removed, shall be removed and disposed of.

Sign panels shown on the plans shall be salvaged. Contractor shall coordinate a location to drop off the salvaged signs with the Engineer.

Existing roadside signs shall not be removed until replacement signs have been installed or until the existing signs are no longer required for the direction of public traffic, unless otherwise directed by the Engineer.

Full compensation for salvaging sign panels shall be considered as included in the contract unit price paid for remove roadside sign and no separate payment will be made therefore.

### ***Remove Concrete***

Concrete, where shown on the plans to be removed, shall be removed.

Removing concrete curb and concrete curb and gutter will be measured by the linear foot, measured along the curb, before removal operations.

Removing concrete sidewalk, driveways, and parking lot will be measured by the square feet before removal operations.

Concrete removed shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Where no joint exists between concrete to be removed and concrete to remain in place, the concrete shall be cut on a neat line to a minimum depth of 0.17-foot with a power driven saw before the concrete is removed.

Where concrete has been removed outside the roadway prism, the backfilled areas shall be graded to drain and blend in with the surrounding terrain.

Concrete to be removed which has portions of the same structure both above and below ground will be considered as concrete above ground for compensation.

### ***Relocate Fire Hydrant***

This item shall consist of relocating standard fire hydrants at the locations indicated on the plans.

The fire hydrants and their installations shall be as shown on the plans and shall meet the applicable requirements of the Indian Wells Valley Water District (IWWVD).

A bury line shall be clearly marked on the hydrant barrel per manufacturers recommendations.

The furnishing and placing of the branch lead pipe from the water main to the fire hydrant shall be included in this item of work.

Payment shall be at the contract unit price bid per each Relocate Fire Hydrant and shall include full compensation for furnishing all labor, material, tools and equipment and incidentals and for doing all work involved in relocating fire hydrants as shown on the plans, as specified in these special provisions and as directed by the Engineer.

### ***Relocate Mailbox***

Existing mailboxes shall be removed and reset in conformance with the details shown on the plans.

During construction operations, the mailboxes shall be moved as necessary to clear the way for the Contractor's operations, but shall be accessible for delivery at all times. During construction, the mailboxes shall be installed on

posts set in the ground or the mailboxes may be installed on temporary supports approved by the Engineer.

When construction is complete, the mailboxes shall be installed in the final position on new redwood posts.

Redwood posts shall conform to the provisions for sign posts in Section 56-2.02B, "Wood Posts," of the Standard Specifications.

The space around the posts shall be backfilled with earthy material. The backfill material shall be placed in layers approximately 4 inches thick and each layer shall be moistened and thoroughly compacted.

Existing posts, mounts, and hardware shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

A multiple-box installation shall consist of 2 mailboxes installed on a single post. Each multi-box installation shall be considered as 2 units for payment purposes.

Newspaper boxes on individual posts will be considered as mailboxes for measurement and payment.

Newspaper boxes attached to existing mailbox posts shall be removed and fastened to the new mailbox posts and no separate payment will be made therefor.

Full compensation for disposing of existing posts, mounts, and hardware; moving and maintaining the mailboxes (regardless of the number of moves required); and for furnishing new posts, planks, and hardware shall be considered as included in the contract unit price paid for relocate mailbox and no additional compensation will be allowed therefor.

### ***Relocate Gate***

This item shall conform to section 15 of the State Standard Specifications. Gates to be reused must be installed in reconstructed fences at the locations designated in the Plans.

Payment shall be at the contract unit price bid per each Relocate Gate and shall include full compensation for furnishing all labor, materials, tools and equipment and incidentals and for doing all work involved in Relocate Gate as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

### ***Relocate Sign***

This item shall conform to Section 56 of the State Construction Specifications.

Existing roadside signs and private signs shall be removed and relocated to the new locations shown on the plans.

Each roadside and private sign shall be installed at the new location on the same day that the sign is removed from its original location.

Two holes shall be drilled in each existing post as required to provide the breakaway feature shown on the plans.

Payment shall be at the contract unit price bid per each Relocate Sign and shall include full compensation for furnishing all labor, material, tools, and equipment and incidentals and for doing all work involved in Relocate Sign as shown on the plans, as specified in these special provisions and as directed by the Engineer.

### ***Relocate Water Service and Meter***

This item shall consist of relocating water pipes at the locations shown on the plans. The water pipe and its placement, along with the necessary fittings and their installation shall meet the applicable requirements of IWVWD Water Main Extension Procedures and these special provisions.

Included in this item are the required thrust blocking, tees, couplers, reducers, elbows, potholing, shoring, and connections to the existing water mains.

Excess excavated material shall be the property of the Contractor and shall be deposited in a location and manner satisfactory to the Engineer.

Measurement and payment shall be based upon the horizontal dimensions of the water main constructed.

Payment shall be at the contract unit price bid per each Relocate Water Service and Meter and shall include full compensation for furnishing all labor, materials, tools and equipment, and for doing all work involved in Relocate Water Service and Meter as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

### ***Relocate Water Valve***

Water valves shall be relocated as indicated in the plans and in accordance with

the Standard Specifications.

Included in this item is furnishing and placing new water valve boxes and steel standpipes (risers) and liners as required, and adjusting the water valve boxes to grade.

The Contractor shall ensure that water valve box covers are not covered with asphaltic coatings during paving operations. Standpipes shall be left clean and free of paving materials and debris. The valve-operating nut shall be left fully exposed after all paving operations have been completed.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in Relocate Water Valve as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

#### ***1-17 Adjust Sewer Cleanout to Grade***

Frames and covers of existing sewer cleanouts shall be adjusted to final finished grade in accordance with the City standard plan No. 12.

Prior to removal of existing pavement, the contractor shall remove the existing frame and cover. A two foot (2') square by one fourth inch (1/4") steel plate shall be placed over the cleanout, at least six inches (6") below the grading plane, backfilled with a temporary cold asphalt aggregate mix, and shall be maintained until the adjustment to final grade commences.

Existing cleanout frames and covers, if salvaged undamaged, may be reused. If damaged, a new frame and cover shall be furnished. Full compensation for furnishing new cast iron frame and cover for sewer manhole shall be considered as included in the contract price paid for adjusting manhole frame and cover and no additional allowance will be allowed therefore.

The contract unit price paid for Adjust Cleanout to Grade includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in lowering and raising frames and cover to grade, complete in place, including concrete and HMA (Type A), as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### ***1-18 Adjust Water Meter Box to Grade***

Frames and covers of existing water meter boxes shall be adjusted to final finished grade in accordance with the Indian Wells Valley Water District Standard Drawing P-18.

Adjust Water Meter Box to Grade before cold planing or replacing asphalt concrete surfacing. Temporarily fill utility depressions with HMA (Type A) before opening the lane to public traffic.

Adjust frames and covers of existing facilities to grade as shown on the plans after completion of paving activities.

The contract unit price paid for adjust Water Meter Box to Grade includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in lowering and raising water meter boxes complete in place, including concrete and HMA (Type A), as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### ***1-19 Adjust Fire Hydrant to Grade***

Fire Hydrant shall be adjusted to final finished grade in accordance with the Indian Wells Valley Water District Standard Drawings where shown on the plans and as directed by the Engineer.

The contract unit price paid for adjust Fire Hydrant to Grade includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in lowering and raising fire hydrants complete in place, including concrete, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### ***1-20 Adjust Manhole to Grade***

Frames and covers of existing manholes shall be adjusted to final finished grade in accordance with the provisions in Section 15-2.05A, of the State Standard Specifications, these special provisions, and the City of Ridgecrest Standard Plan No. 14.

Prior to removal of existing pavement, the contractor shall remove the existing concrete pad and the frame and cover. A three foot (3') square by one fourth inch (1/4") steel plate shall be placed over the manhole, at least six inches (6") below the grading plane, backfilled with a temporary cold asphalt aggregate mix, and shall be maintained until the adjustment to final grade commences.

Existing manhole frames and covers, if salvaged undamaged, may be reused. If damaged, a new frame and cover shall be furnished. Full compensation for furnishing new cast iron frame and cover for sewer manhole shall be considered as included in the contract price paid for adjusting manhole frame and cover and no additional allowance will be allowed therefore.

The contract unit price paid for Adjust Manhole to Grade includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in lowering and raising frames and cover to grade, complete in place, including concrete and HMA (Type A) and square PCC pad as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

### **1-21 *Adjust Water Valve Cover to Grade***

Frames and covers of existing water valves shall be adjusted to final finished grade in accordance with the provisions in the special provisions and the Indian Wells Valley Water District (IWVWD) Std. Drawing P-11A, and the City standards.

Prior to removal of existing pavement, the contractor shall remove the existing concrete pad and the frame and cover. An eighteen inch (18") by one fourth inch (1/4") steel plate shall be placed over the water valve at least six inches (6") below the grading plane, backfilled with a temporary cold asphalt aggregate mix, and shall be maintained until the adjustment to final grade commences.

Existing frames and covers, if salvaged undamaged, may be reused if approved by IWVWD. If damaged, a new frame and cover shall be furnished by IWVWD. It shall be the contractor's responsibility to obtain frames and covers from IWVWD.

The contract unit price bid for each Adjust Water Valve Cover to Grade and shall include full compensation for furnishing all labor, materials, tools, equipment, and for doing all the work involved in lowering the valve prior to removal of existing pavement, and adjusting the water valve, complete with concrete pad, including excavation and saw cutting pavement at the periphery of the square PCC pad.

### **1-22 *Reconstruct Manhole***

Reconstruct Manhole shall consist of removing the existing frame, cover, cone, and section of the manhole in conflict with the proposed improvements and the reconstruction of the manhole to the finish grade shown in the project plans. All work shall conform to the City of Ridgecrest standard plans and details and these specifications.

Prior to removal of existing pavement, the contractor shall remove the existing concrete pad and the frame and cover. A three foot (3') square by one fourth inch (1/4") steel plate shall be placed over the manhole, at least six inches (6") below the grading plane, backfilled with a temporary cold asphalt aggregate mix, and shall be maintained until the adjustment to final grade commences.

Existing manhole frames and covers, if salvaged undamaged, may be reused. If damaged, a new frame and cover shall be furnished. Full compensation for furnishing new cast iron frame and cover for sewer manholes shall be considered as included in the contract price paid for reconstruct manhole and no additional allowance will be allowed therefore.

The contract unit price paid for Reconstruct Manhole includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in lowering frames and cover to grade, complete in place as shown *on the* plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

### ***1-23 Cold Planing Asphalt Concrete Pavement***

#### **General**

##### ***Summary***

This work includes cold planing existing asphalt concrete pavement.

##### ***Sequencing and Scheduling***

Schedule cold planing activities to ensure hot mix asphalt (HMA) is placed over cold planed area during the same work shift before opening to traffic. If you cannot place HMA over the entire cold planed area before opening it to traffic:

1. Construct a temporary HMA taper to the level of the existing pavement.
2. Place HMA during the next lane or shoulder closure for that area.

Schedule cold planing activities so that not more than two working days elapses between the time the pavement is cold planed and the HMA is placed.

#### **Materials**

HMA for temporary tapers must be of the same quality as the HMA used elsewhere on the project or comply with "Minor Hot Mix Asphalt" of these special provisions.

#### **Construction**

##### ***General***

Perform planing of asphalt concrete pavement without the use of a heating

device to soften the pavement.

### ***Cold Planing Equipment***

Cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width. If the only available 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 until the Engineer approves your request.
2. Equipped with automatic controls to control 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 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.

Replace broken, missing, or worn machine teeth.

### ***Grade Control and Surface Smoothness***

Furnish, install, and maintain grade and transverse slope references.

The depth, length, width, and shape of the cut must be as shown or as ordered.

The final cut must result in a neat and uniform surface. Do not damage remaining surface.

The completed surface of the planed asphalt concrete pavement must not vary more than 0.02 foot when measured with a 12-foot straightedge parallel with the centerline. The transverse slope of the planed surface must not vary more than 0.03 foot from the straightedge when placed at right angles to the centerline.

A drop-off of more than 0.15 foot is not allowed between adjacent lanes open to public traffic.

### ***Temporary HMA Tapers***

If a drop-off between the existing pavement and the planed area at transverse joints cannot be avoided before opening to traffic, construct a temporary HMA taper. HMA for temporary taper must be:

1. Placed to the level of the existing pavement and tapered on a slope of 30:1 (Horizontal: Vertical) or flatter to the level of the planed area
2. Compacted by any method that will produce a smooth riding surface
3. Completely removed before placing the permanent surfacing. The removed material must be disposed of outside the highway right of way in conformance

with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

#### ***Disposal of Planed Material***

Remove cold planed material concurrent with planing activities, within 50 feet of the planer or as ordered.

Dispose of planed material and under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Cold plane asphalt concrete pavement is measured by the square yard. The contract price paid per square yard for cold plane asphalt concrete pavement includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in cold planing asphalt concrete surfacing and disposing of planed material, including constructing, maintaining, removing temporary HMA tapers if applicable, as specified in the Standard Specifications and these special provisions and as directed by the Engineer.

Full compensation for removal of thermoplastic traffic stripe, painted traffic stripe, and pavement marking in areas of cold plane asphalt concrete is included in the contract price paid for cold plane asphalt concrete and no separate payment will be made therefor.

#### ***1-24 Clearing and Grubbing***

Clearing and grubbing shall conform to the provisions in Section 16, "Clearing and Grubbing," of the Standard Specifications and these special provisions.

Vegetation shall be cleared and grubbed only within the excavation and embankment slope lines.

#### ***1-25 Roadway Excavation***

Roadway Excavation shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these special provisions.

When a layer of specified material is not to be placed on the basement material, the finished grading plane shall not vary more than 0.10-foot above or below the grade established by the Engineer. The requirements for obtaining a relative compaction of 95 percent, as provided in the first 2 paragraphs in Section 19-5.03, "Relative Compaction (95 Percent)," of the Standard Specifications shall not apply when a layer of specified material is not to be placed on the basement material.

Surplus excavated material shall become the property of the Contractor and shall

be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Surplus excavated material not designated as hazardous waste due to aerially deposited lead shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Where a portion of the existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 0.17-foot before removing the surfacing. Full compensation for cutting the existing surfacing shall be considered as included in the contract price paid per cubic yard for roadway excavation and no additional compensation will be allowed therefor.

Reinforcement or metal attached to reinforced concrete rubble placed in embankments shall not protrude above the grading plane. Prior to placement within 2 feet below the grading plane of embankments, reinforcement or metal shall be trimmed to no greater than 3/4 inch from the face of reinforced concrete rubble. Full compensation for trimming reinforcement or metal shall be considered as included in the contract prices paid per cubic yard for the types of excavation shown in the Engineer's estimate, or the contract prices paid for furnishing and placing imported borrow or embankment material, as the case may be, and no additional compensation will be allowed therefor.

Earth material found to be unsuitable for subgrade shall be excavated to a depth determined by the Engineer and all such material shall be disposed of outside the street right-of-way in an area approved by the City.

This work includes applying and consolidating topsoil.

Comply with Section 20-2.01, "Topsoil," of the Standard Specifications.

Comply with Section 20-3.02, "Preparation," of the Standard Specifications.

Spread topsoil to a uniform thickness.

### ***1-26 Full-Depth Rehabilitation (FDR) and Grading***

This item of work shall conform to the Geotechnical Investigation Report prepared by Kleinfelder West, Inc. dated May 10, 2010.

#### ***Description***

This specification shall govern the process known as Full-Depth Rehabilitation (FDR). FDR consists of reconstructing an existing distress pavement section by

in-place recycling of the pavement materials and cement stabilize to enhance the structural properties of the recycled materials. This work shall consist of pulverizing existing roadway materials and uniformly mixing with Portland cement and water. Mixture shall then be compacted, finished, and cured in such a manner that the in-place cement treated mixture forms a dense, uniform mass with a minimum compressive strength of 300 psi. The FDR section shall conform to the lines, grades, and cross sections shown on the Plans.

### ***Materials***

**Recycled Materials** – Material to be treated with Portland cement shall consist of pulverized asphaltic concrete, existing aggregate base, and underlying native subgrade soils. In areas where the subgrade soils will exceed twenty-five (25) percent of the total treated section, the soil shall be classified to determine clay content.

Existing materials shall be pulverized so that 100 percent will pass a 2-inch (50-mm) sieve and a minimum of 85 percent will pass a 1-inch (25-mm) sieve.

Soil directly beneath the stabilized FDR section shall be moist. If underlying soil conditions become unstable due to high moisture content, contractor shall notify engineer for additional direction.

**Portland cement** – All cement to be used or furnished shall conform to Section 90 of the State Standard Specifications. The cement shall be protected from moisture until used and be sufficiently dry to flow freely when handled. Cement shall be furnished in bulk and not exposed until applied to prepared grade.

**Water** – Water to be used shall conform to Section 17 of the State Standard Specifications. Water shall be free from oils, acids, organic matter or other substances deleterious to the cement treatment of materials. The water shall not contain more than 1000 parts per million of chlorides nor more than 1000 parts per million of sulfates as SO<sub>4</sub>. Water shall be clean and potable and shall be added as needed during mixing, compacting, and finishing operations and during the curing period, as required.

**Cement Application Rate.** For bidding purposes, contractor shall use a Portland cement application rate of four-percent (4%) at 120-pcf-soil weight. Contractor shall also submit an add/deduct price per square foot for Portland cement percentages above and below the four-percent (4%) base application rate.

**Contractors Qualification.** The contractor performing FDR cement stabilization shall document a minimum of five years' experience performing similar cement stabilization work. The contractor shall submit a list of equipment to be utilized in performance of the cement stabilization work. The contractor shall submit a detailed description of work procedures for approval by the Engineer prior to

beginning FDR cement stabilization work.

The contractor performing FDR cement stabilization shall have a representative on site with a minimum of 5 years' experience in cement stabilization. Their function should include coordinating with other contractors and site representatives. All personnel should be properly trained in the FDR treatment process, including quality control and safety procedures.

**Protection of Existing Utilities.** Where existing underground utilities or utility services lie within the FDR section, the contractor shall verify, by potholing or other means acceptable to and approved by the Engineer, that there is sufficient cover over the utilities to provide clearance for the FDR mixing process without damage to the existing utility facilities. This verification shall be carried out where each utility crosses the boundary of the FDR section, and at a minimum of one location in between. This paragraph shall not relieve the Contractor of conforming to all utility protection requirements contained elsewhere in these special provisions.

The Contractor shall be responsible for the protection of existing pipelines, manholes, catch basins, valve boxes and other utility structures that are to remain within the FDR work area. Any such utility facilities that are damaged from roadway excavation work performed by the Contractor shall be either repaired or replaced to the satisfaction of the Engineer at no cost to the City, in accordance with Section 7-1.11, "Preservation of Property." of the State Standard Specifications.

**Equipment.** FDR section shall be constructed utilizing a combination of machines that will produce results that meet all the requirements herein. The Engineer prior to use shall approve such machines.

**Cement Spreader:** The cement spreader shall be equipped with such instrumentation and control equipment to control spread rates over variable travel speeds. The operator shall demonstrate that the instrumentation and control equipment is calibrated and capable of controlling the spread rates within specifications.

**Mixer:** The mixing equipment shall be capable of mixing the full-specified depth of cement treatment, leaving a relatively smooth plane at the bottom of the FDR section. Mixing equipment shall be equipped with a visible depth indicator showing the mixing depth, and odometer or foot meter to indicate travel speed, and a controllable water additive system for regulating water added to the mixture.

**Compactors:** When compacting cement treated sections greater than eight (8) inches, a sheepfoot type compactor capable of compacting the entire section to the project specification shall be used.

## ***Construction***

**Preparation of Existing Roadway.** The existing asphalt concrete (AC) surfacing and the underlying base material shall be pulverized to a depth twice the thickness of the existing AC section. When the thickness of the existing base section is less than the thickness of the existing AC section, the pulverized depth may be reduced per Engineers approval.

The pulverized materials shall be graded to conform to the lines and grade shown on the Plans prior to application of the cement. Grading operations will require some movement of material along the grade and/or off-hauled to conform to the lines and elevations shown on the Plans and to allow for the new asphalt concrete section.

At the contractor's option, the existing AC section may be removed by other means; if contractor can demonstrate to the Engineer, that pre-removal of AC will still allow new grade requirements to be met with remaining materials. This paragraph shall not relieve the Contractor of conforming to requirements contained elsewhere in these special provisions.

No more of the existing roadway sections shall be pulverized or removed in any working day than can be relayed as specified above in that working day. Pulverized material shall be temporarily compacted at the end of each day with a smooth drum roller, to allow for traffic.

**Portland Cement Application.** The Portland cement shall be applied in one operation to the required width, grade and cross section. Cement shall be evenly spread at the designated rate and shall not vary more than 10 percent on any area. Only a calibrated spreader able to provide a uniform distribution of the cement throughout the treatment area shall spread cement. The cement shall be added in a dry state and every precaution shall be taken to prevent dusting.

Tailgate spreading of the cement will not be permitted. Tailgating is defined as having manual control of the spread rate, instead of automatic. The spreader truck shall demonstrate the ability to maintain a consistent spread rate over variable travel speeds. The contractor will demonstrate the consistency of the spread rate by conducting multiple pan tests.

The pan test consists of placing a 3 square foot pan on the grade in front of the spreader truck. After cement has been spread, the cement is weighed to determine the rate of spread in pounds per square foot. Truck tags will be used to verify amount of cement delivered to project.

No traffic other than the mixing equipment or other related construction equipment would be allowed to pass over the exposed cement until after

completion of mixing.

Cement shall not be spread or mixed/hydrated while the atmospheric temperature is below 35° F or below 1.67° C. At the Engineers discretion, processing will be allowed if temperature is rising.

**Mixing and Hydrating.** The depth of treatment shall be the depth designated on the Plans or as determined by the Engineer. In areas where mixer can not access, such as around manholes or curbs, Contractor shall process the same day by pulling the material away from obstacles immediately after cement application. Material and cement shall be relayed to an area accessible to mixing equipment.

Cement treatment can be conducted in one lift provided the contractor can demonstrate that the spread rate, particle size, and compaction can be achieved. The mixer shall be capable of automatically adjusting itself to maintain a constant depth. On the initial mix, the water truck must have a solid connection to the mixer. The water shall be injected directly into the mixing chamber producing a homogenous blend free from streaks or pockets of dry cement. Leakage of water from equipment will not be permitted. Care shall be exercised to avoid the addition of any excessive water.

When mixed material, exclusive of one inch or larger clods, is sprayed with phenolphthalein alcohol indicator solution, areas showing no color reaction will be considered evidence of inadequate mixing.

Contractor is required to complete mixing and initial compaction of the FDR-cement section within 2 hours of initial hydration of cement.

**Compaction.** Maintain moisture above the optimum moisture content, but within allowable range as determined by the moisture/density relationship of the compaction curve. The FDR-cement section shall be compacted to 95 percent of the maximum density as determined by ASTM 1557.

The maximum compacted thickness of a single layer may be any thickness the contractor can demonstrate to the engineer that his equipment and method of operation will provide the required compacted density throughout the treated layer.

**Initial compaction** – Contractor shall achieve the projects minimum compaction requirement during initial compaction operation. Lift thickness of 4 to 8 inches shall be by means of a steel-tired or pneumatic-tired roller. Lift thickness of 8 to 12 inches shall be compacted by means of a sheepsfoot compactor. Lift thickness greater than 12 inches shall be compacted by a sheepsfoot compactor with an open ring design to prevent bridging of the lower half of the FDR section. Areas inaccessible to rollers shall be compacted to the required compaction by other means satisfactory to the Engineer.

**Surface compaction.** Surface compaction is defined as the upper 3 inches of the FDR section. Surface compaction shall be by means of steel-tired or pneumatic-tired roller. Areas inaccessible to rollers shall be compacted to the required compaction requirement by other means satisfactory to the Engineer.

**Final Grading.** Surface compaction and finish grading shall proceed in such a manner as to produce, in not more than 2 hours from initial compaction, a smooth, closely knit surface conforming to the crown, grade and line indicated and will be free of cracks, ridges or loose material.

Maintain moisture content on surface within allowable range during all grading procedures.

All excess material above the grade tolerance specified by the plans should be removed from the grade prior to final surface compaction of the FDR section. This excess material can be used in areas inaccessible to treatment equipment, provided the cement base material is used within the allotted time constraints.

The trimmed and completed surface shall be rolled with steel or pneumatic tired rollers. Minor indentations may remain in the surface of the finished material as long as no loose material remains in the indentations.

**Curing.** After placement and compaction of the FDR-cement section is completed, it shall be protected against drying and traffic for 3-days. The Engineer, based on factors such as degree of traffic, temperature, and stability may reduce the 5-day cure period.

Curing shall be moist (water fogging), bituminous seal, or other method approved by the Engineer. If moist curing is used, exposed surfaces of the FDR section shall be kept continuously moist with a fog spray for 3 days. If a bituminous curing is used, it shall consist of liquid asphalt or emulsified asphalt meeting the requirements of the State Standard Specifications.

The bituminous curing seal shall be applied in sufficient quantity to provide a continuous membrane over the soil at a rate of between 0.45 L/m<sup>2</sup> and 0.90 L/m<sup>2</sup> (0.10 and 0.20 gallon per square yard) of surface with the exact rate determined by the Engineer. It shall be applied as soon as possible after the completion of final rolling. The surface shall be kept moist until the seal is applied. At the time the bituminous material is applied, the FDR surface shall be dense, shall be free of all loose and extraneous material, and shall contain sufficient moisture to prevent excessive penetration of the bituminous material.

**Repair.** If the FDR-cement section is damaged, it shall be repaired by removing and replacing the entire depth of affected layers in the damaged area. Feathering will not be permitted for repair of low areas.

**Measurement and Payment.** Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work required to process the existing materials and any necessary grading, as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer, shall be considered as included in the price paid per square foot for the Full-Depth Rehabilitation process and no additional compensation will be allowed therefore.

**1-27 Aggregate Base (Class 2)**

Aggregate base must comply with Section 26, "Aggregate Bases," of the Standard Specifications and these special provisions.

Aggregate base must be Class 2.

Do not store reclaimed asphalt concrete or aggregate base with reclaimed asphalt concrete within 100 feet measured horizontally of any culvert, watercourse, or bridge.

**1-28 Hot Mix Asphalt (Type A)**

***Summary***

This work includes producing and placing hot mix asphalt (Type A)

Comply with Section 39, "Asphalt Concrete," of the State Standard Specifications.

***Submittals***

***Data Cores***

Three business days before starting coring, submit proposed methods and materials for backfilling data core holes.

Submit to the Engineer and electronically to [Coring@dot.ca.gov](mailto:Coring@dot.ca.gov):

1. A summary of data cores taken
2. A photograph of each data core

For each data core, the summary must include:

1. Project identification number
2. Date cored
3. Core identification number
4. Type of materials recovered
5. Type and approximate thickness of unstabilized material not

- recovered
- 6. Total core thickness
- 7. Thickness of each individual material to within:
  - 7.1 For recovered material, 1/2 inch
  - 7.2 For unstabilized material, 1.0 inch
- 8. Location including:
  - 8.1. County
  - 8.2. Route
  - 8.3. Post mile
  - 8.4. Lane number
  - 8.5. Lane direction
  - 8.6. Station

Each data core digital photograph must include a ruler laid next to the data core. Each photograph must include:

- 1. The core
- 2. Project identification number
- 3. Core identification number
- 4. Date cored
- 5. County
- 6. Route
- 7. Post mile
- 8. Lane number
- 9. Lane direction

After data core summary and photograph submittal, dispose of cores under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

### *Materials*

#### ***Asphalt Binder***

The grade of asphalt binder mixed with aggregate for HMA (Type A) must be PG 64-10.

#### ***Aggregate***

The aggregate for HMA (Type A) must comply with the 3/4 inch grading. The top or final lift shall be HMA (Type A) with 1/2-inch grading.

### *Construction*

#### ***Vertical Joints***

Before opening the lane to public traffic, pave shoulders and median borders

adjacent to a lane being paved.

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 between 5 feet and 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 approved bond breaker under the conform tapers to facilitate the taper removal when paving operations resume.

### ***Widening***

If widening existing pavement, construct new structural section on both sides of the existing pavement to match the elevation of the existing pavement's edge at each location before placing HMA over the existing pavement.

### ***Conform Tapers***

Place shoulder conform tapers concurrently with the adjacent lane's paving. Place additional HMA along the pavement's edge to conform to road connections and private drives. Hand rake, if necessary, and compact the additional HMA to form a smooth conform taper.

### ***Data Cores***

Take data cores that include the completed HMA pavement, underlying base, and subbase material. Protect data cores and surrounding pavement from damage.

Take 4-inch or 6-inch diameter data cores:

1. At the beginning, end, and every 1/2 mile within the paving limits of each route on the project
2. After all paving is complete
3. From the center of the specified lane

On a 2-lane roadway, take data cores from either lane. On a 4-lane roadway, take data cores from each direction in the outermost lane. On a roadway with more than 4 lanes, take data cores from the median lane and the outermost lane in each direction.

Each core must include the stabilized materials encountered. You may choose not to recover unstabilized material but you must identify the material.

Unstabilized material includes:

1. Granular material

2. Crumbled or cracked stabilized material
3. Sandy or clayey soil

### ***Payment***

Full compensation for data coring will be considered as included in the prices paid for the various items of work involved in data coring and no separate payment will be made therefore.

### ***Measurement and Payment***

Hot Mixed Asphalt (HMA) Type A will be measured by weight. The quantity to be paid for will be the combined weight of the mixture for the various types of asphalt concrete or asphalt concrete base, whichever is designated in the Engineer's Estimate. The weight of the materials will be determined as provided in Section 9-1.01, "Measurement of Quantities" of the State Standard Specifications.

Hot Mixed Asphalt (HMA) Type A will be paid for at the contract price per ton and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing asphalt concrete complete in place, as shown on the plans and as specified in these specifications, and as directed by the Engineer.

## **1-29 Hot Mix Asphalt (Misc Areas)**

### ***Summary***

This work includes producing hot mix asphalt (HMA) and placing it on miscellaneous areas shown in the plans.

Comply with Section 39, "Asphalt Concrete," of the Standard Specifications.

### ***Measurement and Payment***

Hot Mix Asphalt (Miscellaneous Areas) will be paid for by the square yard and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing Hot Mix Asphalt (Miscellaneous Areas) complete in place, as shown on the plans and as specified in these specifications, and as directed by the Engineer

Full compensation for tack coat for miscellaneous areas is considered as included in the contract price paid per ton for the hot mix asphalt used in miscellaneous areas and no separate payment will be made therefor.

### **1-30 Minor Concrete (Color Concrete)**

Colored concrete shall conform to the provisions in Section 51, "Concrete Structures," of the Standard Specifications and these special provisions.

The rim of tree grates shall be integrally pigmented concrete. The color shall closely conform to Davis Color "Sandstone" No. 5237. Color pigments shall be of high quality iron oxides conforming to ASTM C 979. The dosage shall not exceed 10 percent by weight of cementitious material in the concrete mix design.

The Contractor shall submit technical data and manufacturer's specifications for colored concrete components and a proposed plan for mixing, delivery, placement, finishing, and curing of the colored concrete. This plan shall be submitted to the Engineer for approval at least 20 days prior to constructing the architectural texture test panel.

A test panel of at least 4' x 4' with a minimum depth of 3 inches shall be successfully completed at a location approved by the Engineer at least 20 days before placing colored concrete. The test panel shall be constructed, finished, and cured with the same materials, tools, equipment, and methods that will be used in placing the colored concrete. At the completion of the curing period, the test panel shall exhibit a color that closely matches the specified color. If ordered by the Engineer, additional test panels shall be constructed, finished, and cured until the specified color is obtained.

The approved test panel shall be the standard of comparison in determining the acceptability of colored concrete. Upon successful completion of all colored concrete, all test panels shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Cementitious materials and aggregates from the same sources used in the approved architectural texture test panel shall be used for the colored concrete in the finished work.

The Contractor shall monitor the water content, weight of cementitious materials, and size, weight, and color of aggregate to maintain consistency and accuracy of the mixed colored concrete. The Contractor shall schedule delivery of concrete to provide consistent mix times from batching until discharge. No water shall be added after a portion of the batch has been discharged. Consistent finishing practices shall be used to ensure uniformity of texture and color.

Surrounding exposed surfaces shall be protected during placement, finishing,

and curing operations of colored concrete.

Full compensation for colored concrete shall be considered as included in the contract price paid per cubic yard for minor concrete (color concrete), and no separate payment will be made therefor.

### **1-31 *Roadside Signs – One Post***

Roadside signs shall be furnished and installed at the locations shown on the plans or where designated by the Engineer and in conformance with the provisions in Section 56-2, "Roadside Signs," of the Standard Specifications and these special provisions.

The Contractor shall furnish roadside sign panels in conformance with the provisions in "Furnish Sign" of these special provisions.

Wood posts shall be pressure treated after fabrication in conformance with the provisions in Section 58, "Preservative Treatment of Lumber, Timber and Piling," of the Standard Specifications and AWWA Use Category System: UC4A, Commodity Specification A or B. Type N (CA), Type P (CA), and Type R (CA) marker panels mounted on a post with a roadside sign shall be considered to be sign panels and will not be paid for as markers.

### **1-32 *Furnish and Install Sign***

Signs shall be fabricated and furnished in accordance with details shown on the plans, the Traffic Sign Specifications, and these special provisions.

Traffic Sign Specifications for California sign codes are available for review at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/specs.htm>

Traffic Sign Specifications for signs referenced with Federal MUTCD sign codes can be found in Standard Highway Signs Book, administered by the Federal Highway Administration, which is available for review at:

[http://mutcd.fhwa.dot.gov/ser-shs\\_millennium.htm](http://mutcd.fhwa.dot.gov/ser-shs_millennium.htm)

Information on cross-referencing California sign codes with the Federal MUTCD sign codes is available at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/specs.htm>

Temporary or permanent signs shall be free from blemishes that may affect the serviceability and detract from the general sign color and appearance when

viewing during daytime and nighttime from a distance of 25 feet. The face of each finished sign shall be uniform, flat, smooth, and free of defects, scratches, wrinkles, gel, hard spots, streaks, extrusion marks, and air bubbles. The front, back, and edges of the sign panels shall be free of router chatter marks, burns, sharp edges, loose rivets, delaminated skins, excessive adhesive over spray and aluminum marks.

### *Quality Control for Signs*

The requirements of "Quality Control for Signs" in this section shall not apply to construction area signs.

No later than 14 days before sign fabrication, the Contractor shall submit a written copy of the quality control plan for signs to the Engineer for review. The Engineer will have 10 days to review the quality control plan. Sign fabrication shall not begin until the Engineer approves the Contractor's quality control plan in writing. The Contractor shall submit to the Engineer at least 3 copies of the approved quality control plan. The quality control plan shall include, but not be limited to the following requirements:

- A. Identification of the party responsible for quality control of signs,
- B. Basis of acceptance for incoming raw materials at the fabrication facility,
- C. Type, method and frequency of quality control testing at the fabrication facility,
- D. List (by manufacturer and product name) of process colors, protective overlay film, retroreflective sheeting and black non-reflective film,
- E. Recommended cleaning procedure for each product, and
- F. Method of packaging, transport and storage for signs.

No legend shall be installed at the project site. Legend shall include letters, numerals, tildes, bars, arrows, route shields, symbols, logos, borders, artwork, and miscellaneous characters. The style, font, size, and spacing of the legend shall conform to the Standard Alphabets published in the FHWA Standard Highway Signs Book. The legend shall be oriented in the same direction in accordance with the manufacturer's orientation marks found on the retroreflective sheeting.

On multiple panel signs, legend shall be placed across joints without affecting the size, shape, spacing, and appearance of the legend. Background and legend shall be wrapped around interior edges of formed panel signs as shown on plans to prevent delamination.

The following notation shall be placed on the lower right side of the back of

each sign where the notation will not be blocked by the sign post or frame:

- A. Name of the sign manufacturer,
- B. Month and year of fabrication,
- C. Type of retroreflective sheeting, and
- D. Manufacturer's identification and lot number of retroreflective sheeting.

The above notation shall be applied directly to the aluminum sign panels in 1/4-inch upper case letters and numerals by die-stamp and applied by similar method to the fiberglass reinforced plastic signs. Painting, screening, or engraving the notation will not be allowed. The notation shall be applied without damaging the finish of the sign.

Signs with a protective overlay film shall be marked with a dot of 3/8 inch in diameter. The dot placed on white border shall be black, while the dot placed on black border shall be white. The dot shall be placed on the lower border of the sign before application of the protective overlay film and shall not be placed over the legend and bolt holes. The application method and exact location of the dot shall be determined by the manufacturer of the signs.

For sign panels that have a minor dimension of 48 inches or less, no splice will be allowed in the retroreflective sheet except for the splice produced during the manufacturing of the retroreflective sheeting. For sign panels that have a minor dimension greater than 48 inches, only one horizontal splice will be allowed in the retroreflective sheeting.

Unless specified by the manufacturer of the retroreflective sheeting, splices in retroreflective sheeting shall overlap by a minimum of one inch. Splices shall not be placed within 2 inches from edges of the panels. Except at the horizontal borders, the splices shall overlap in the direction from top to bottom of the sign to prevent moisture penetration. The retroreflective sheeting at the overlap shall not exhibit a color difference under the incident and reflected light.

Signs exhibiting a significant color difference between daytime and nighttime shall be replaced immediately.

Repairing sign panels will not be allowed except when approved by the Engineer.

The Engineer will inspect signs for damage and defects before and after installation.

Regardless of kind, size, type, or whether delivered by the Contractor or by a

common carrier, signs shall be protected by thorough wrapping, tarping, or other methods to ensure that signs are not damaged by weather conditions and during transit. Signs shall be dry during transit and shipped on pallets, in crates, or tier racks. Padding and protective materials shall be placed between signs as appropriate. Finished sign panels shall be transported and stored by method that protects the face of signs from damage. The Contractor shall replace wet, damaged, and defective signs.

Signs shall be stored in dry environment at all times. Signs shall not rest directly on the ground or become wet during storage. Signs, whether stored indoor or outdoor, shall be free standing. In areas of high heat and humidity signs shall be stored in enclosed climate-controlled trailers or containers. Signs shall be stored indoor if duration of the storage will exceed 30 days.

Screen processed signs shall be protected, transported and stored as recommended by the manufacturer of the retroreflective sheeting.

When requested, the Contractor shall provide the Engineer test samples of signs and materials used at various stages of production. Sign samples shall be 12" x 12" in size with applied background, letter or numeral, and border strip.

The Contractor shall assume the costs and responsibilities resulting from the use of patented materials, equipment, devices, and processes for the Contractor's work.

### ***Sheet Aluminum***

Alloy and temper designations for sheet aluminum shall be in accordance with ASTM Designation: B 209.

The Contractor shall furnish the Engineer a Certificate of Compliance in conformance with Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for the sheet aluminum.

Sheet aluminum shall be pretreated in accordance to ASTM Designation: B 449. Surface of the sheet aluminum shall be cleaned, deoxidized, and coated with a light and tightly adherent chromate conversion coating free of powdery residue. The conversion coating shall be Class 2 with a weight between 10 milligrams per square foot and 35 milligrams per square foot, and an average weight of 25 milligrams per square foot. Following the cleaning and coating process, the sheet aluminum shall be protected from exposure to grease, oils, dust, and contaminants.

Sheet aluminum shall be free of buckles, warps, dents, cockles, burrs, and defects resulting from fabrication.

Base plate for standard route marker shall be die cut.

### ***Retroreflective Sheeting***

The Contractor shall furnish retroreflective sheeting for sign background and legend in conformance with ASTM Designation: D 4956 and "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

Retroreflective sheeting shall be applied to sign panels as recommended by the retroreflective sheeting manufacturer without stretching, tearing, and damage.

Class 1, 3, or 4 adhesive backing shall be used for Type II, III, IV, VII, VIII, and IX retroreflective sheeting. Class 2 adhesive backing may also be used for Type II retroreflective sheeting. The adhesive backing shall be pressure sensitive and fungus resistant.

When the color of the retroreflective sheeting determined from instrumental testing is in dispute, the Engineer's visual test will govern.

### ***Process and Color Film***

The Contractor shall furnish and apply screened process color, non-reflective opaque black film, and protective overlay film of the type, kind, and product that are approved by the manufacturer of the retroreflective sheeting.

The Contractor shall furnish the Engineer a Certificate of Compliance in accordance to Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for the screened process color, non-reflective opaque black film, and protective overlay film.

The surface of the screened process color shall be flat and smooth. When the screened process colors determined from the instrumental testing in accordance to ASTM Designation: D 4956 are in dispute, the Engineer's visual test will govern.

The Contractor shall provide patterns, layouts, and set-ups necessary for the screened process.

The Contractor may use green, red, blue, and brown reverse-screened process colors for background and non-reflective opaque black film or black screened process color for legend. The coefficient of retroreflection for reverse-screened process colors on white retroreflective sheeting shall not be less than 70 percent of the coefficient of retroreflection specified in ASTM Designation: D 4956.

The screened process colors and non-reflective opaque black film shall have the

same outdoor weatherability as that of the retroreflective sheeting.

After curing, screened process colors shall withstand removal when tested by applying 3M Company Scotch Brand Cellophane Tape No. 600 or equivalent tape over the color and removing with one quick motion at 90° angle.

### ***Single Sheet Aluminum Sign***

Single sheet aluminum signs shall be fabricated and furnished with or without frame. The Contractor shall furnish the sheet aluminum in accordance to "Sheet Aluminum" of these special provisions. Single sheet aluminum signs shall be fabricated from sheet aluminum alloy 6061-T6 or 5052-H38.

Single Sheet aluminum signs shall not have a vertical splice in the sheet aluminum. For signs with depth greater than 48 inches, one horizontal splice will be allowed in the sheet aluminum.

Framing for single sheet aluminum signs shall consist of aluminum channel or rectangular aluminum tubing. The framing shall have a length tolerance of  $\pm 1/8$  inch. The face sheet shall be affixed to the frame with rivets of 3/16-inch diameter. Rivets shall be placed within the web of channels and shall not be placed less than 1/2 inch from edges of the sign panels. Rivets shall be made of aluminum alloy 5052 and shall be anodized or treated with conversion coating to prevent corrosion. The exposed portion of rivets on the face of signs shall be the same color as the background or legend where the rivets are placed.

Finished signs shall be flat within a tolerance of  $\pm 1/32$  inch per linear foot when measured across the plane of the sign in all directions. The finished signs shall have an overall tolerance within  $\pm 1/8$  inch of the detailed dimensions.

Aluminum channels or rectangular aluminum tubings shall be welded together with the inert gas shielded-arc welding process using E4043 aluminum electrode filler wires as shown on the plans. Width of the filler shall be equal to wall thickness of smallest welded channel or tubing.

### ***Measurement and Payment***

The contract price paid per each furnish sign of the types specified in the Engineer's estimate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in fabricating and furnishing the signs, including removable sign panel frame and fastening hardware, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Full compensation for furnishing and installing protective overlay on signs shall be considered as included in the contract price paid per each sign furnished of the various types and no separate payment will be made therefor.

### **1-33 Paint Concrete Surface (Red Curb)**

Paint Concrete Surface (Red Curb) shall conform to the provisions in Section 59, "Painting," and Section 91, "Paint," of the Standard Specifications, and these special provisions.

The paint to be applied to concrete surfaces shall conform to the provisions in Section 91-4.05, "Paint; Acrylic Emulsion, Exterior White and Light and Medium Tints," of the Standard Specifications. The color of the paint shall be red.

Preparing and painting concrete will be measured by the linear foot. Measurement will be determined along the length of curb painted.

The contractor price paid per linear foot for prepare and paint concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing the concrete and applying the paint to concrete surfaces, as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer.

### **1-34 18" Reinforced Concrete Pipe**

Reinforced concrete pipe shall conform to the provisions in Section 65, "Reinforced Concrete Pipe," of the Standard Specifications and these special provisions.

#### ***General***

Where embankment will not be placed over the top of the pipe, a relative compaction of not less than 85 percent shall be required below the pipe spring line for pipe installed using Method 1 backfill in trench, as shown on Standard Plan A62D. Where the pipe is to be placed under the traveled way, a relative compaction of not less than 90 percent shall be required unless the minimum distance between the top of the pipe and the pavement surface is the greater of 4 feet or one half of the outside diameter of the pipe.

Except as otherwise designated by classification on the plans or in the specifications, joints for culvert and drainage pipes shall conform to the plans or specifications for standard joints.

If reinforced concrete pipe is installed in conformance with the details shown on Standard Plan A62DA, the fifth paragraph of Section 19-3.04, "Water Control and Foundation Treatment," of the Standard Specifications shall not apply.

Where solid rock or other unyielding material is encountered at the planned elevation of the bottom of the bedding, shown on Standard Plan A62DA, the material below the bottom of the bedding shall be removed to a depth of 1/50 of the height of the embankment over the top of the culvert, but not less than 6 inches nor more than 12 inches. The resulting trench below the bottom of the bedding shall be backfilled with structure backfill material in conformance with the provisions in Section 19-3.06, "Structure Backfill," of the Standard Specifications. The Outer Bedding shall not be compacted prior to placement of the pipe.

### **Materials**

The concrete for reinforced concrete pipe shall contain not less than 470 pounds of cementitious material per cubic yard and have a water– cementitious material ratio that does not exceed 0.40 by weight. Reinforcement shall have a minimum cover of 1 inch.

Special reinforced concrete pipe, having concrete cover over the steel reinforcement greater than the cover specified in AASHTO Designation: M 170, shall conform to the provisions in Section 65-1.02, "Materials," and Section 65-1.02A, "Circular Reinforced Concrete Pipe," of the Standard Specifications, except the width of crack produced by the D-load test specified in AASHTO Designation: M 170 shall be the width determined by the following formula:

$$b = \frac{t - 3/8d}{t - 3/8d - C} \times 0.01 \text{ inch}$$

Where:

- b = Width of crack to be produced in lieu of the 0.01-inch crack specified in AASHTO Designation: M 170
- t = Wall thickness of pipe, inches
- d = Effective depth of the section to be tested, feet
- C = Concrete cover over steel reinforcement in excess of cover specified in AASHTO Designation: M 170

Reinforced concrete pipe that is to be hydrostatically tested shall be strength tested by the 3-edge bearing method to a maximum D-load of 10 percent greater than the 0.01-inch cracking D-load specified in AASHTO Designation: M 170 or to the actual D-load required to produce a 0.01-inch crack, whichever is the lesser.

Special oval shaped reinforced concrete pipe, having concrete cover over the

steel reinforcement greater than the cover specified in AASHTO Designation: M 207, shall conform to the provisions in Section 65-1.02, "Materials," and Section 65-1.02B, "Oval Shaped Reinforced Concrete Pipe," of the Standard Specifications, except the width of crack produced by the D-load test specified in AASHTO Designation: M 207 shall be the width determined by the following formula:

$$b = \frac{t - 3/8d}{t - 3/8d - C} \times 0.01 \text{ inch}$$

Where:

- b = Width of crack to be produced in lieu of the 0.01-inch crack specified in AASHTO Designation: M 207
- t = Wall thickness of pipe, inches
- d = Effective depth of the section to be tested, feet
- C = Concrete cover over steel reinforcement in excess of cover specified in AASHTO Designation: M 207

Oval shaped reinforced concrete pipe that is to be hydrostatically tested shall be strength tested by the 3-edge bearing method to a maximum D-load of 10 percent greater than the 0.01-inch cracking D-load specified in AASHTO Designation: M 207 or to the actual D-load required to produce a 0.01-inch crack, whichever is the lesser.

The excavation and backfill below the planned elevation of the bottom of the bedding shown on Standard Plan A62DA will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications.

The Department does not pay any additional cost for use of optional supplementary cementitious material.

The Department does not pay any additional cost for excess concrete cover over steel reinforcement.

### **1-35 18" Precast Concrete Flared End Section**

18" precast concrete flared end sections shall conform to the provisions in Section 70, "Miscellaneous Facilities," of the Standard Specifications and these special provisions.

18" Precast Concrete Flared End Sections will be measured as units.

Payment shall be made at the unit price bid for each 18" Precast Concrete

Flared End Section and shall include full compensation for all labor, materials, tools, equipment and incidentals, and for doing all work involved with the construction of the 18" precast concrete flared end section including excavation and backfill, complete in place, as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer.

**1-36 Type GO Drainage Inlet**

This item shall be constructed at the location shown on the plans and shall be in accordance with State Standard Plan D74B and conform to Sections 70 the State Standard Specifications.

Payment shall be at the unit price bid per each Type GO Drainage Inlet and shall include full compensation for all labor, materials, tools, equipment and incidentals, and for doing all work involved with the construction of each Type GO Drainage Inlet as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer.

**1-37 Rock Slope Protection**

Slope protection shall be placed or constructed in conformance with the provisions in Section 72, "Slope Protect," of the Standard Specifications

Rock slope protection fabric must be Class B.

Rock Slope Protection (Backing No. 2, Method B) shall be measure by the cubic yard.

The contract price paid per cubic yard for Rock Slope Protections (Backing No. 2, Method B) shall include full compensation for furnishing al labor, materials, tools, equipment, and incidentals, and for doing all the work involved in rock slope protection, including excavation and backfill of areas to receive Rock Slope Protection and Rock Slope Protection fabric, as shown on the plans, and specified in the Standard Speculations and these special provisions, and as directed by the Engineer.

**1-38 Minor Concrete**

Minor Concrete shall conform to the provisions in Section 73, "Concrete Curbs and Sidewalks" and Section 51 "Concrete Structures" of the Standard Specifications and these special provisions. Included under this item of work is the construction of sidewalk, curb, gutter, curb ramps, valley gutters, retaining curbs, concrete stairs, driveways, parking lots, and any necessary steel.

Curb ramp detectable warning surface shall consist of raised truncated domes constructed or installed on curb ramps in conformance with the details shown on the plans and these special provisions. At the option of the Contractor, the detectable warning surface shall be prefabricated, cast-in-place, or stamped into the surface of the curb ramp. The color of the detectable warning surface shall be yellow conforming to Federal Standard 595B, Color No. 33538.

Prefabricated detectable warning surface shall be in conformance with the requirements established by the Department of General Services, Division of State Architect and be attached in conformance with the manufacturer's recommendations.

Cast-in-place and stamped detectable warning surfaces shall be painted in conformance with the provisions in Section 59-6, "Painting Concrete," of the Standard Specifications.

The finished surfaces of the detectable warning surface shall be free from blemishes.

Prior to constructing the cast-in-place or stamping the detectable warning surface, the Contractor shall demonstrate the ability to produce a detectable warning surface conforming to the details shown on the plans and these special provisions by constructing a 24" x 24" test panel.

The manufacturer shall provide a written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

Quantities of concrete in sidewalk, curbs, gutter, curb ramps, valley gutters, retaining curbs, concrete stairs, driveways, and parking lots will be paid for by the cubic yard, will be determined from the dimensions shown on the plans or such other dimensions as may be ordered in writing by the Engineer, and concrete placed in excess of these dimensions will not be paid for.

Quantities of minor concrete shown in the Engineer's Estimate, in sidewalk, curbs, gutters, curb ramps, valley gutters, retaining curbs, concrete stairs, driveways, and parking lots will be paid for at the contract price per cubic yard for minor concrete.

The above prices and payments shall include full compensation for furnishing all labor, materials (including adhesive, or reinforcing steel and dowels for anchoring curbs to existing pavement), tools, equipment, and incidentals, and for doing all the work involved in constructing sidewalk, curbs, gutters, curb ramps, valley gutters, retaining curbs, concrete stairs, driveways, and parking

lots complete in place, including subgrade preparation, as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer.

### **1-39 *Install Water Meter***

Water meters for the irrigation systems will be furnished and installed by the serving utility at the locations shown on the plans.

The Contractor shall make the arrangements and pay the costs and fees required by the serving utility.

The Indian Wells Valley Water District has established a fee of \$??? for furnishing and installing a water meter. If, at the time of installation, this fee has been changed, the City will take a credit for the reduction in the fee, or the City will pay the difference for the increase in the fee. The credit or payment will be taken or paid on the first monthly progress payment made after the meter is installed. The Contractor shall furnish the Engineer with a copy of the invoice for the installation fee.

Attention is directed to Section 20-4.06, "Watering," of the Standard Specifications. The Contractor shall make the arrangements for furnishing and applying water until the water meters have been installed by the serving utility.

The quantity of water meters will be measured by the unit as determined from actual count in place.

The contract unit price paid for water meter shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing water meters, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

### **1-40 *Pedestrian Railing***

Pedestrian Railing shall conform to Section 83-1 "Railings" of the Standard Specifications, the details found in the project plans, and these special provisions.

Pedestrian Railing will be measured by the linear foot from end to end along the face of the railing, including end and intermediate posts, and with no deductions for gaps in railing.

The contract price paid per linear foot for Pedestrian Railing shall include full compensation for furnishing all labor, materials, tools, equipment, and

incidentals, and for doing all the work involved in constructing the railing, complete in place, including, but not limited to, excavation, backfill and disposal of surplus material, concrete and reinforcing steel, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### **1-41 *Miscellaneous Iron and Steel***

Miscellaneous iron and steel shall conform to the provisions in Section 75, "Miscellaneous Metal," of the Standard Specifications and these special provisions.

Tree grate shall include, support steel, reinforced expanded wire mesh, landscape fabric, mounting hardware, and all tools and labor to install, complete in place as shown on the plans and in these special provisions.

Contractor may submit alternate cast iron tree grate solutions that meet the site conditions for approval by the Engineer.

##### **Manufacturer:**

Tree grates shall be supplied by Ironsmith, Inc. 41-701 Corporate Way, Unit 3, Palm Desert, CA. 92260. 800.338.4766

Tree Grates shall be: Custom designed 48 inch square galvanized steel Paver-Grate™ for use with pavers in three sections, with 12 inch tree opening.

Paver-Grates shall be manufactured from standard steel shapes to ASTM A36 and expanded metal grating 3# to ASTM A569/569M. If required, tubing to ASTM A500. Units shall be manufactured true to design and all components shall fit together in a satisfactory manner. Grates are to be of uniform quality, flat and free from distortion.

Grates are to be supplied galvanized by hot spray method.

##### **Installation:**

Install grates where indicated on plans per details on plans and Manufacturer's instructions.

Paver-Grate footings must be flat and leveled so that grates do not rock or appear unstable before unit pavers are set. Footings are to be set to ensure that unit pavers over the Paver-Grate are flush and level with the surrounding areas.

Cover Paver-Grates with permeable landscape fabric before setting unit pavers to permit sanding joints.

Cut unit pavers to fit around tree opening ensuring a secure fit against Paver-Grate opening stop.

**Payment:**

Tree Grate will be measured and paid for by the unit as determined from the actual count in place.

The contract unit price paid for Tree Grate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing Tree Grate, complete in place, as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

**1-42 Barbed Wire Fence**

Barbed Wire Fence shall conform to the provisions in Section 80, "Fences," of the Standard Specifications and these special provisions.

The fence material shall be fastened to metal posts.

**1-43 Chain Link Fence**

Chain link fence shall be Type CL-6 and shall conform to the provisions in Section 80, "Fences," of the Standard Specifications.

Barbed wire supporting arms (extension arms) shall extend upwards from the tops of the fence posts at an approximate angle of 45 degrees and shall be fitted with clips or other suitable means for attaching 3 lines of barbed wire. The top outside wire shall be attached to the extension arm at a point approximately 12 inches above the top of the chain link fabric and 12 inches out from the fence line. The other wires shall be attached to the arm uniformly between the top of the fence and the top outside wire.

Barbed wire shall conform to the provisions in Section 80-3.01C, "Barbed Wire," of the Standard Specifications.

Full compensation for clearing the line of the fence and disposing of the resulting material, excavating high points in the existing ground, excavating and backfilling holes, disposing of surplus excavated material, and furnishing and placing concrete footings and deadmen, and connecting new fences to structures and existing cross fences, and constructing temporary fences for the protection of businesses, shall be considered as included in the contract price paid per linear foot for the fence and no additional compensation will be allowed therefore.

**1-44 Survey Monument**

The Contractor shall preserve all monumentation affected by the work included in this contract in accordance with Section 8771 of the Professional Land Surveyors Act in the Business and Professions Code of the State of California. Locations of existing monumentation known to the Engineer that are within the area of work in this contract have been indicated on the Plans. Contractor's licensed surveyors shall tie down existing monuments and submit the information to the City of Ridgecrest Survey Department.

Survey monuments shall be constructed in conformance with the provisions in Section 81, "Monuments," of the Standard Specifications and these special provisions.

Concrete shall be Class 3 or minor concrete at the option of the Contractor. The cast steel and gray cast iron frames and covers, including hardware, shall conform to the provisions in Section 55-2, "Materials," of the Standard Specifications.

Frames and covers of existing survey monuments shall be adjusted to final finished grade in accordance with the provisions in the special provisions, and the City standard plan No. 9.

Prior to removal of existing pavement, the contractor shall remove the existing concrete pad and the frame and cover. An eighteen inch (18") by one fourth inch (1/4") steel plate shall be placed over the survey monument, at least six inches (6") below the grading plane, backfilled with a temporary cold asphalt aggregate mix, and shall be maintained until the adjustment to final grade commences.

Existing frames and covers, if salvaged undamaged, may be reused. If damaged, a new frame and cover shall be furnished. Full compensation for furnishing new cast iron frame and cover for survey monuments shall be considered as included in the contract price paid for adjusting survey monuments and no additional allowance will be allowed therefore.

Preserving and constructing survey monuments will be paid for at the contract unit price bid for each, which price shall include full compensation for furnishing all labor, materials, tools, equipment, and for doing all the work involved in preserving survey monument prior to removal of existing pavement, and constructing new survey monuments, complete with concrete pad, including excavation and saw cutting pavement at the periphery of the until the adjustment to final grade commences.

#### **1-45 Thermoplastic Traffic Stripe and Pavement Marking**

Thermoplastic traffic stripes (traffic lines) and pavement markings shall be applied in conformance with the provisions in Section 84, "Traffic Stripes and Pavement Markings," of the Standard Specifications and these special provisions.

Thermoplastic material shall be free of lead and chromium, and shall conform to the requirements in State Specification PTH-02ALKYD.

Retroreflectivity of the thermoplastic traffic stripes and pavement markings shall conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of  $250 \text{ mcd m}^{-2} \text{ lx}^{-1}$ . Yellow thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of  $150 \text{ mcd m}^{-2} \text{ lx}^{-1}$ .

Where striping joins existing striping, as shown on the plans, the Contractor shall begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern.

Thermoplastic material for traffic stripes shall be applied at a minimum rate of one gallon per 107 square feet. The minimum application rate is based on a solid stripe of 4 inches in width.

Thermoplastic traffic stripes shall be applied at the minimum thickness and application rate as specified below. The minimum application rate is based on a solid stripe of 4 inches in width.

Minimum Stripe Thickness (inch)	Minimum Application Rate (lb/ft)
0.079	0.27
0.098	0.34

Thermoplastic traffic stripes and pavement markings shall be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

At the option of the Contractor, permanent traffic striping and pavement marking tape conforming to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these special provisions may be placed instead of the thermoplastic traffic stripes and pavement markings specified herein. Permanent tape, if used, shall be installed in conformance with the manufacturer's specifications.

If permanent tape is placed instead of thermoplastic traffic stripes and pavement

markings, the tape will be measured and paid for by the linear foot as thermoplastic traffic stripe and by the square foot as thermoplastic pavement marking.

#### **1-47 Pavement Markers and Delineators**

Markers and delineators shall conform to the provisions in Section 82, "Markers and Delineators," of the Standard Specifications and these special provisions.

Markers and delineators on flexible posts shall conform to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. Flexible posts shall be made from a flexible white plastic which shall be resistant to impact, ultraviolet light, ozone, and hydrocarbons. Flexible posts shall resist stiffening with age and shall be free of burns, discoloration, contamination, and other objectionable marks or defects which affect appearance or serviceability.

Retroreflective sheeting for metal and flexible target plates shall be the retroreflective sheeting designated for channelizers, markers, and delineators conforming to the requirements in ASTM Designation: D 4956-95 and in conformance with the provisions in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

Attention is directed to "Traffic Control System for Lane Closure" of these special provisions regarding the use of moving lane closures during placement of pavement markers with bituminous adhesive.

The Contractor shall furnish the Engineer certificates of compliance for the pavement markers in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

Retroreflective pavement markers shall be marked as abrasion resistant on the body of the markers.

Retroreflective pavement markers placed in pavement shall be cemented with a flexible, polymer-modified, hot-melt asphaltic adhesive conforming to the following requirements:

Specification	ASTM Designation	Requirement
Penetration, mm, 100 g, 5 seconds, 25°C	D 5	3.0 Maximum
Softening Point, °C	D 36	93 Minimum
Brookfield Thermosel Viscosity, Pa s, No. 27 Spindle, 20 RPM, 191°C	D 4402	2.5 - 6
Ductility, cm, 5 cm/min, 25°C	D 113	15 Minimum
Ductility, cm, 1 cm/min, 4°C	D 113	5 Minimum
Flexibility	D 3111 <sup>1, 2, 3, 4</sup>	No breaks or cracks
<p>Notes:</p> <ol style="list-style-type: none"> <li>1. Modify ASTM Designation: D 3111, Paragraph 6, to "The test apparatus consists of a mandrel one inch in diameter by 3 inch to 6 inch in length, supported at each end."</li> <li>2. Modify ASTM Designation: D 3111, Paragraph 7, to "The test specimen dimensions are one inch wide, 6 inch long, and 1/8 inch thick."</li> <li>3. Modify ASTM Designation: D 3111, Paragraph 8, to "Condition the test specimens and apparatus for 4 hours at 19° F before testing."</li> <li>4. Modify ASTM Designation: D 3111, Paragraph 10.5, to "Bend the test specimens 90° over the mandrel at a uniform rate in 10 seconds while maintaining intimate contact with the mandrel."</li> </ol>		

Testing of adhesive bond strength will be performed on sandblasted concrete brick surface in conformance with the requirements in California Test 669 and these special provisions. The concrete brick surface will be sandblasted in conformance with the requirements in California Test 423. The test plugs of 2-inch diameter will be conditioned at 221° F for a minimum of 2 hours before bonding to the sandblasted concrete surface. The adhesive sample will be heated to the application temperature as recommended by the manufacturer and a sample of 3 inch diameter in area will be poured onto the sandblasted concrete surface. The heated plug will immediately be pressed onto the puddle of hot adhesive to squeeze out excess adhesive. The excess adhesive extruding from under the plug will be removed. The assembly will be allowed to cure for 24 hours at 73° F ± 3.6° F and then be tested to bond failure at a crosshead speed of 2 inches per minute. The reported peak load and the bond strength value will be the average of 3 tests, respectively. The same bond strength test will be performed on retroreflective pavement markers. Instead of placing the heated adhesive sample on the sandblasted concrete surface, it will be placed on the bottom of the pavement markers.

Minimum bond strength to the sandblasted concrete brick surface shall be 100 psi and minimum bond strength to retroreflective pavement markers shall be 119 psi.

Adhesive placed in pavement recesses shall be applied as recommended by the manufacturer.

Retroreflective pavement markers placed in pavement recesses will be measured and paid for as pavement marker (retroreflective-recessed).

#### **1-48 Concrete Block Paver**

Concrete block pavers shall consist of grading, installing, and filling joints with sand in accordance with the details shown on the plans and these special provisions.

The areas to receive concrete pavers shall be graded smooth to a uniform depth in accordance with the details shown on the plans.

Excavated material, damaged concrete pavers, and surplus pavers that are not used in the work shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications. Sand leveling base shall be masonry or mortar type sand conforming to the following:

- A) Sand shall be clean, washed and 100% passing No. 4 sieve and a maximum of 3% passing a No. 200 sieve.
- B) Thickness of sand leveling base shall be  $\frac{3}{4}$  inch to 1 inch, screeded to grade.

Placement of concrete pavers shall start from corner or straight edge and proceed forward over base. Paving work shall be plumb, level and true to line and grade. Paving shall be installed to properly coincide and align with adjacent work and elevations. All edges must be restrained to secure perimeter stones.

- A) Pavers shall be placed in patterns as shown on plans.
- B) Install concrete pavers hand tight and level on base.
- C) Masonry or mortar sand shall be spread over installed concrete pavers so that it can be brushed into joints.
- D) Sweep sand on surface area into joints. Excess sand from surface area shall be disposed of outside of right of way.
- E) Completed concrete pavers installation shall be washed and cleaned.

Concrete pavers will be measured and paid for by the square foot. The quantity to be paid for will be the actual areas covered by reset concrete pavers.

The contract price paid per square foot for reset concrete pavers shall include full compensation for furnishing all labor, materials (including furnishing sand), tools, equipment, and incidentals, and for doing all the work involved in concrete pavers, complete in place, including disposing of the surplus concrete pavers that are not used, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

**1-49 *Decorative Bollard***

## ***Highway Planting and Irrigation Systems***

### **2-1 General**

The work performed in connection with highway planting and irrigation systems shall conform to the provisions in Section 20, "Erosion Control and Highway Planting," of the Standard Specifications and these special provisions.

#### ***Progress Inspections***

Progress inspections will be performed by the Engineer for completed highway planting and irrigation system work at designated stages during the life of the contract.

Progress inspections will not relieve the Contractor of responsibility for installation in conformance with the special provisions, plans and Standard Specifications. Work within an area shall not progress beyond each stage until the inspection has been completed, corrective work has been performed, and the work is approved, unless otherwise permitted by the Engineer.

The requirements for progress inspections will not preclude additional inspections of work by the Engineer at other times during the life of the contract.

The Contractor shall notify the Engineer, in writing, at least 4 working days prior to completion of the work for each stage of an area and shall allow a minimum of 3 working days for the inspection.

Progress inspections will be performed at the following stages of work:

- A. During pressure testing of the pipelines on the supply side of control valves.
- B. During testing of low voltage conductors.
- C. Before planting begins and after completion of the work specified for planting in Section 20-4.03, "Preparing Planting Areas," of the Standard Specifications.
- D. Before plant establishment work begins and after completion of the work specified for planting in Section 20-4.05, "Planting," of the Standard Specifications.
- E. At intervals of three months during the plant establishment period.

#### ***Cost Break-Down***

The Contractor shall furnish the Engineer a cost break-down for the contract

lump sum items of highway planting and irrigation system. Cost break-down tables shall be submitted to the Engineer for approval within 30 working days after the contract has been approved. Cost break-down tables will be approved, in writing, by the Engineer before any partial payment will be made for the applicable items of highway planting and irrigation system involved.

Cost break-downs shall be completed and furnished in the format shown in the samples of the cost break-downs included in this section. Line item descriptions of work shown in the samples are the minimum to be submitted. Additional line item descriptions of work may be designated by the Contractor. If the Contractor elects to designate additional line item descriptions of work, the quantity, value and amount for those line items shall be completed in the same manner as for the unit descriptions shown in the samples. The line items and quantities given in the samples are to show the manner of preparing the cost break-downs to be furnished by the Contractor.

The Contractor shall determine the quantities required to complete the work shown on the plans. The quantities and their values shall be included in the cost break-downs submitted to the Engineer for approval. The Contractor shall be responsible for the accuracy of the quantities and values used in the cost break-downs submitted for approval.

No adjustment in compensation will be made in the contract lump sum prices paid for highway planting and irrigation system due to differences between the quantities shown in the cost break-downs furnished by the Contractor and the quantities required to complete the work as shown on the plans and as specified in these special provisions.

Individual line item values in the approved cost break-down tables will be used to determine partial payments during the progress of the work and as the basis for calculating an adjustment in compensation for the contract lump sum items of highway planting and irrigation system due to changes in line items of work ordered by the Engineer. When the total of ordered changes to line items of work increases or decreases the lump sum price bid for either Highway Planting or Irrigation System by more than 25 percent, the adjustment in compensation for the applicable lump sum item will be determined in the same manner specified for increases and decreases in the total pay quantity of an item of work in Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications.

## HIGHWAY PLANTING COST BREAK-DOWN

Contract No. \_\_\_\_\_

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
Commercial Fertilizer (slow release)	LBS	145		
Commercial Fertilizer (tabs)	EA	779		
Roadside clearing	LS	Lump Sum		
Pesticides	LS	Lump Sum		
Plant Group A	EA	518		
Plant Group U	EA	29		
Root Barriers	LF	564		
Tree grate	EA	30		
Mulch	CY	18		
90 Day Plant Establishment Period	LS	Lump Sum		

**TOTAL** \_\_\_\_\_

## IRRIGATION SYSTEM COST BREAK-DOWN

Contract No. \_\_\_\_\_

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
Backflow Preventer	EA	2		
Backflow Preventer Enclosure	EA	2		
12 Station Irrigation Controller	EA	2		
Conductors	LS	Lump Sum		
1" Remote Control Valve Master	EA	2		
1 1/4" Remote Control Valve	EA	1		
1" Remote Control Valve	EA	4		
3/4" Remote Control Valve	EA	5		
1" Gate Valve	EA	2		
1" Flow Sensor	EA	1		
1" Filter Assembly Unit	EA	4		
1 1/2" Filter Assembly Unit	EA	1		
3/4" Type "K" copper pipe	LF	5240		
1" Type "K" copper pipe	LF	1685		
1 1/2" Type "K" copper pipe	LF	20		
Sprinkler type B-2	EA	58		
Subsurface emitter	LF	2394		
Combination Air Relief Valve	EA	20		
Automatic Flush Valve	EA	20		

**TOTAL** \_\_\_\_\_

## 2-02 Existing Highway Planting

In addition to the provisions in Section 20, "Erosion Control and Highway Planting," of the Standard Specifications, work performed in connection with existing highway planting shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

## 2-03 Highway Planting

The work performed in connection with highway planting shall conform to the provisions in Section 20-4, "Highway Planting," of the Standard Specifications and these special provisions.

### **Highway Planting Materials**


### **Commercial Fertilizer (Slow Release)**

Commercial fertilizer (slow release) shall be a pelleted or granular form, shall be slow or controlled release with a nutrient release over an 8-month to 12-month period, and shall fall within the following guaranteed chemical analysis range:

Ingredient	Percentage
Nitrogen	<u>20-25</u>
Phosphoric Acid	<u>6-8</u>
Water Soluble Potash	<u>4-10</u>

### **Commercial Fertilizer (Packets)**

Commercial fertilizer (packet) shall be slow or controlled release and shall be in a biodegradable packet form. The packet shall gradually release nutrients over a 12-month period. Each packet shall have a weight of 10 g ± 1 g and shall have the following guaranteed chemical analysis:

Ingredient	Percentage
Nitrogen	<u>20</u>
Phosphoric Acid	<u>10</u>
Water Soluble Potash	<u>5</u>

## **ROADSIDE CLEARING**

Before preparing planting areas , or commencing irrigation trenching operations for planting areas, trash and debris shall be removed from these areas as required under Construction Site Management of these special provisions. The project area shall be cleared as specified herein:

H. Weeds shall be killed and removed within planting areas where plants are to be planted in groups or rows 15 feet or less apart and from within an area extending 6 feet beyond the outer limits of the groups or rows of plants.

After the initial roadside clearing is complete, additional roadside clearing work shall be performed as necessary to maintain the areas, as specified above, in a neat appearance until the start of the plant establishment period. This work shall include the following:

- A. Trash and debris shall be removed.
- B. Rodents shall be controlled.
- C. Weed growth shall be killed before the weeds reach the seed stage of growth or exceed 6 inches in length, whichever occurs first, except for weeds in wild flower seeding areas to be mowed.
- E. Weeds in plant basins, including basin walls, shall be removed by hand pulling, after the plants have been planted.

### ***Weed Control***

Weed control shall also conform to the following:

- A. Stolon type weeds shall be killed with glyphosate.
- B. Tumbleweeds shall be removed by hand pulling before the tumbleweeds reach a height of 6 inches.
- C. Removed weeds and ground cover shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Roadside clearing work shall not include work required to be performed as clearing and grubbing as specified in Section 16, "Clearing and Grubbing," of the Standard Specifications.

### ***Pesticides***

Pesticides used to control weeds shall conform to the provisions in Section 20-4.026, "Pesticides," of the Standard Specifications. Except as otherwise provided in these special provisions, pesticide use shall be limited to the following materials:

Cacodylic Acid

Diquat  
Fluazifop-butyl  
Glyphosate  
Isoxaben (Preemergent)  
Sethoxydim  
Oxadiazon - 50 percent WP (Preemergent)  
Oryzalin (Preemergent)  
Pendimethalin (Preemergent)  
Prodiamine (Preemergent)  
Trifluralin (Preemergent)  
Ammonium Sulfate  
Magnesium Chloride  
Melfluidide (Growth regulator)  
Napropamide (Preemergent)

Granular preemergents may be used when applied to areas that will be covered with mulch, excluding plant basins. Granular preemergents shall be limited to the following materials:

Dichlobenil (Preemergent)  
Oxadiazon (Preemergent)

Granular preemergents shall be applied prior to the application of mulch. Mulch applications shall be completed in these areas on the same working day. Photosensitive dye will not be required.

A minimum of 90 days shall elapse between applications of preemergents. If the Contractor elects to request the use of other pesticides on this project, the request shall be submitted, in writing, to the Engineer not less than 15 days prior to the intended use of the other pesticides. Except for the pesticides listed in these special provisions, no pesticides shall be used or applied without prior written approval of the Engineer.

Pesticides shall not be applied within the limits of the plant basins. Pesticides shall not be applied in a manner that allows the pesticides to come in contact with the foliage and woody parts of the plants.

### ***PREPARING PLANTING AREAS***

Plants adjacent to drainage ditches shall be located so that after construction of the basins, no portion of the basin walls shall be less than the minimum distance shown on the plans for each plant involved.

### ***PLANTING***

Backfill material for plant holes must be a mixture of soil and soil amendment. The quantity of soil amendment shall be as shown on the Plant List.

Thoroughly mix backfill material and uniformly distribute throughout the entire depth of the plant hole without clods and lumps.

Apply or place commercial fertilizer (granular and slow release) at the time of planting and at the rates shown on the Plant List.

Place commercial fertilizer packets in the backfill of each plant at the time of planting and at the rate shown on the Plant List to within 6 inches to 8 inches of the soil surface and approximately one inch from the roots. When more than one fertilizer packet is required per plant, the packets must be distributed evenly around the root ball.

Root protectors must conform to the provisions in "Root Protectors" of these special provisions.

A granular pre-emergent must be applied to areas to be covered with mulch outside of plant basins.

Mulch placed in areas outside of plant basins shall be spread to a uniform depth. Spread mulch from the outside of the proposed plant basin to the adjacent edges of shoulders, dikes, curbs, sidewalks, walls, fences, and existing plantings. If the proposed plant material is 12 feet or more from the adjacent edges of shoulders, dikes, curbs, sidewalks, walls, fences, and other existing plantings, the mulch must be spread 6 feet beyond the outside edge of the proposed plant basins.

Do not place mulch within 4 feet of the centerline of earthen drainage ditches, within 4 feet of the edge of paved ditches, and within 4 feet of the centerline of drainage flow lines.

Attention is directed to "Irrigation Systems Functional Test" of these special provisions regarding functional tests of the irrigation systems. Do not perform planting in an area until the functional test has been completed for the irrigation system serving that area.

### ***ROOT BARRIERS***

Root barrier work shall consist of providing and installing root barriers for Plant (Group U) as shown on the plans and as specified in these special provisions.

Root barriers shall be an injection molded or extruded modular component made of high-density polypropylene or polyethylene plastic. Panels shall have a minimum thickness of 1/16 inch. Each panel shall have molded vertical ribs (four minimum) and locking strips or integral male/female sliding locks. Vertical root-deflecting ribs or channels shall be between 0.5 inch and 0.8 inch high, perpendicular to the panel, and between 6 inches and 8 inches apart.

Panels shall be a minimum of 2 feet wide x 2 feet deep.

Root barriers shall be installed between proposed trees and concrete sidewalk or curb as shown on the plans. Panels shall be installed flush with the finished grade and joined with locking strips or integral male/female sliding locks. Locking mechanism shall have a close tolerance to restrict slippage between panels. Barriers shall be installed with root deflectors facing inward.

## **MEASUREMENT AND PAYMENT**

Root barriers shall be measured by the total length of panels installed in the field, measured parallel to the ground surface.

The contract unit price paid per linear foot for root barriers shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing root barriers, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

## ***PLANT ESTABLISHMENT WORK***

The plant establishment period shall be Type 2 and shall not be less than 90 working days.

Weeds within plant basins, including basin walls and ground cover, shall be controlled by hand pulling.

Weeds within mulched and ground cover areas and outside of plant basins shall be controlled by hand pulling.

Except as specified in these special provisions, disposal of mowed material will not be required unless ordered by the Engineer. Disposal of mowed material, as directed by the Engineer, will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications.

At the option of the Contractor, plants of a larger container size than those originally specified may be used for replacement plants during the first 125 working days of the plant establishment period.

Previously installed filters shall be removed, cleaned and reinstalled at least 15 days prior to the completion of the plant establishment period.

The final inspection shall be performed in conformance with the provisions in

Section 5-1.13, "Final Inspection," of the Standard Specifications and shall be completed a minimum of 20 working days before the estimated completion of the contract.

## **2-03 Irrigation Systems**

Irrigation systems shall be furnished and installed in conformance with the provisions in Section 20-5, "Irrigation Systems," of the Standard Specifications, except materials containing asbestos fibers shall not be used.

Method A pressure testing shall conform to the provisions in Section 20-5.03H(1), "Method A", of the Standard Specifications, except leaks that develop in the tested portion of the system shall be located and repaired after each test period when a drop of more than 5 pounds per square inch is indicated by the pressure gage. After the leaks have been repaired, the one hour pressure test shall be repeated and additional repairs made until the drop in pressure is 5 pounds per square inch or less.

### **Valve Box**

Valve boxes shall conform to the provisions in Section 20-2.24, "Valve Boxes," of the Standard Specifications, except as otherwise provided herein. Valve boxes shall be precast portland cement concrete.

Covers for concrete valve boxes shall be cast iron or steel. Cast iron and steel covers shall be hinged with brass hinge pins for valve boxes containing valves smaller than 2 inches.

Valve boxes shall be identified on the top surface of the covers by stenciling with paint the appropriate abbreviations for the irrigation facilities contained in the valve boxes as shown on the plans. Valve boxes that contain remote control valves shall be identified by the appropriate letters and numbers (controller and station numbers). The letters and numbers shall be 2 inches in height. The stenciling paint shall be a commercial quality, epoxy resin base paint of a color which contrasts with the valve box covers.

### **Gate Valves**

Gate valves shall be as shown on the plans and in conformance with the provisions in Section 20-2.28, "Gate Valves," of the Standard Specifications and these special provisions.

Gate valves, smaller than 3 inches in size, shall be furnished with a cross-handle.

Gate valves, 3 inches and larger in size, shall be furnished with a square nut and 3 long shank keys that will operate the valve.

Gate valves shall have a solid bronze or brass wedge.

### ***Electric Automatic Irrigation Components***

#### ***Irrigation Controllers***

Irrigation controllers shall be single, solid-state independent controllers conforming to the following:

- A. Irrigation controllers shall be fully automatic and shall operate a complete 6-week or 365 day calendar.
- B. A switch or switches shall be provided on the face of the control panel that will turn the irrigation controller "on" or "off" and provide for automatic or manual operation. Manual operation shall allow cycle start at the desired station and shall allow activation of a single station.
- C. The watering time of each station shall be displayed on the face of the control panel.
- D. The irrigation controller and the low voltage output source shall be protected by fuses or circuit breakers.
- E. The irrigation controller mechanism, panel and circuit board shall be connected to the low voltage control and neutral conductors by means of plug and receptacle connectors located in the irrigation controller enclosure.
- F. Each station shall have a variable or incremental timing adjustment with a range of 255 minutes to a minimum of one minute.
- G. Irrigation controllers shall be capable of a minimum of 16 program schedules.
- H. Irrigation controllers shall have 2 outputs that can energize a pump start circuit or a remote control valve (master).
- I. When 2 or more irrigation controllers operate the same electric remote control valve (master), an isolation relay shall be provided and installed per the controller manufacturer's instructions.
- J. Irrigation controllers shall be manufactured by the same company.
- K. Where direct burial conductors are to be connected to the terminal strip, the conductors shall be connected with the proper size open-end crimp-on wire terminals. No exposed wire shall extend beyond the crimp of the terminal and the wires shall be parallel on the terminal strip.
- L. Controller shall be two-wire compatible with a two station decoder and surge protection.
- M. Controller shall be flow sensor compatible.

- N. Controller shall be rain sensor compatible.
- O. Controller shall be ET ready. Scheduling software shall include provisions for sprinkler type, precipitation rate, efficiency rate, soil type, plant type, root depth, micro climate, and slope factor.

Attention is directed to the provisions in "Electric Service (Irrigation)" of these special provisions regarding electrical power for irrigation controllers and irrigation controller enclosure cabinets.

### ***Electric Remote Control Valves***

Electric remote control valves shall conform to the provisions in Section 20-2.23, "Control Valves," of the Standard Specifications and the following:

- A. Valves shall be glass filled nylon, brass, .
- B. Valves shall be combination angle pattern (bottom inlet and side inlet) installed as an angle pattern (bottom inlet), as shown on the plans.

### ***Pull Boxes***

Pull box installations shall conform to the provisions in Section 20-5.0271, "Conductors, Electrical Conduits and Pull Boxes," of the Standard Specifications.

### ***Conductors***

Low voltage, as used in this section "Conductors," shall mean 36 V or less. Low voltage control and neutral conductors in pull boxes and valve boxes, at irrigation controller terminals, and at splices shall be marked with adhesive cloth wrap-around markers.

Markers for the control conductors shall be identified with the appropriate number or letter designations of irrigation controllers and station numbers. Markers for neutral conductors shall be identified with the appropriate number or letter designations of the irrigation controllers.

The color of low voltage neutral and control conductor insulation, except for the striped portions, shall be homogeneous throughout the entire thickness of the insulation.

Insulation for conductors may be UL listed polyethylene conforming to UL 44 test standards with a minimum insulation thickness of 41 mils for wire sizes 10AWG and smaller.

### ***Irrigation Controller Enclosure Cabinet***

Irrigation controller enclosure cabinets shall be constructed and equipment installed in the cabinets in conformance with the details shown on the plans, the provisions of Section 86-3.04A, "Cabinet Construction," of the Standard Specifications, and these special provisions.

Electric service shall be installed in accordance with "Electric Service (Irrigation)" of these special provisions.

Irrigation controller enclosure cabinets shall be provided with cross ventilation, roof ventilation or a combination of both. The ventilation shall not compromise the weather resistance properties of the irrigation controller enclosure cabinets and shall be fabricated by the manufacturer.

The anchorage arrangement shall be inside the cabinet as shown on the plans. Dimensions of the cabinet shall be suitable for the equipment to be installed as shown on the plans and specified in these special provisions.

Irrigation controller enclosure cabinets shall be wall mounted stainless steel and manufactured by the same company as the irrigation controller.

Inside of the doors shall have provisions for storage of the irrigation plans.

Solid-state automatic shut-off rain sensor units shall be installed for the irrigation controller enclosure cabinets. Rain sensor units shall automatically interrupt the master remote control valves when approximately 1/8 inch of rain has fallen. The irrigation system shall automatically be enabled again when the accumulated rainfall evaporates from the rain sensor unit collection cup. Rain sensor units shall be rated 24 V (ac) to 30 V (ac). Static charge protection shall be included to protect against lightning damage.

Equipment, except for field wiring, shall be installed in the cabinet in a shop by the equipment manufacturer's representative or distributor prior to field installation.

### ***Irrigation Systems Functional Tests***

Functional tests for the irrigation controllers and associated automatic irrigation systems shall conform to the provisions in Section 20-5.027J, "Testing," of the Standard Specifications and these special provisions.

Tests shall demonstrate to the Engineer, through one complete cycle of the

irrigation controllers in the automatic mode, that the associated automatic components of the irrigation systems operate properly. If automatic components of the irrigation systems fail a functional test, these components shall be repaired at the Contractor's expense and the testing repeated until satisfactory operation is obtained.

Associated automatic components shall include, but not be limited to, irrigation controllers, rain sensors and remote control valves.

Upon completion of work on an irrigation system, including correction of deficiencies and satisfactory functional tests for the systems involved, the plants to be planted in the area watered by the irrigation system may be planted provided the planting areas have been prepared as specified in these special provisions.

### ***Pipe***

Copper pipe must be Type "K" rigid conforming to ASTM Designation: B88. Use wrought copper or cast bronze fittings, soldered or threaded. Use 95% tin and 5% antimony solder.

Copper pipe supply lines (main) must have a minimum cover of 3.0 feet.

Copper pipe supply lines downstream from remote control valves for Type C-2 and subsurface emitter line, installed under AC and must be installed not less than 36 inches below finished grade, measured to the top of the pipe.

### ***Backflow Preventer Assemblies***

Backflow preventers shall conform to the provisions in Section 20-2.25, "Backflow Preventers," of the Standard Specifications and these special provisions.

Backflow preventers shall have current approval from the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC Foundation).

Before backflow preventer assembly installation, the Contractor shall provide the Engineer with the portion of the USC Foundation "List of Approved Backflow Prevention Assemblies" showing type of assembly, manufacturer's name, model number, edition of the manual under which the assembly was approved, approval date and the last renewal date.

The "List of Approved Backflow Prevention Assemblies" is available to Foundation Members. Membership information to join the USC Foundation is

available at:

<http://www.usc.edu/dept/fccchr/membership.html>

Questions concerning the USC Foundation "List of Approved Backflow Prevention Assemblies" can be answered by calling the Foundation at toll free (866) 545-6340.

Pressure loss through the backflow preventers shall not exceed the following:

BACKFLOW PREVENTER SIZE (Inches)	FLOW RATE (Gallons Per Minute)	PRESSURE LOSS (PSI)
2	50	10

***Backflow Preventer Assembly Enclosure***

Enclosures shall be fabricated of structural steel angles and flattened expanded metal and shall be installed over backflow preventer assemblies on a portland cement concrete pad as shown on the plans and in conformance with these special provisions.

Expanded metal for sides, ends and top panels shall be fabricated from 9-gage minimum thickness, sheet steel. The flattened expanded metal openings shall be approximately 3/4-inch x 1-3/4-inch in size.

Expanded metal panels shall be attached to the 3/16-inch thick steel angle frames by a series of welds, not less than 1/4-inch in length and spaced not more than 4-inches on center, along the edges of the enclosure.

Lock-guard shall be made of a minimum thickness of 3/16-inch cold rolled steel.

Padlocks will be furnished by the City of Ridgecrest.

Enclosures shall be galvanized, after fabrication, in conformance with the provisions in Section 75-1.05, "Galvanizing," of the Standard Specifications.

Hold down bolt assemblies shall be galvanized and shall be installed when the portland cement concrete pad is still plastic. Nuts shall be hexagonal and washers shall be the lock type.

Enclosures shall be painted by the manufacturer with one application of a commercial quality pre-treatment, vinyl wash primer and a minimum of one application of a commercial quality, exterior enamel for metal. The finish color shall be a tan to light brown closely matching Federal Standard No. 595B, Color No. 20450.

All parts of the backflow preventer assembly enclosure, including hold down assemblies, may be constructed of stainless steel instead of standard steel materials specified above. Stainless steel enclosures shall conform to the provisions herein except galvanizing, priming and painting shall not be required. Stainless steel enclosures shall be powder coated a tan to light brown color closely matching Federal Standard 595B, Color No. 20450, by the manufacturer.

Lock-guard for stainless steel enclosures shall be 12-gage stainless steel, Type 304.

### ***Testing New Backflow Preventers***

New backflow preventers shall be tested for proper operation in conformance with the provisions in Section 20-5.03J, "Check and Test Backflow Preventers," of the Standard Specifications and these special provisions.

Tests for new backflow preventers shall be satisfactorily completed after installation and before operation of the irrigation systems.

### ***Backflow Preventer Assembly Blanket***

Backflow preventer assembly blankets on new and existing backflow preventer assemblies shall be furnished and installed as shown on the plans and in conformance with these special provisions.

At the Contractor's option, blankets shall be vinyl coated or polymeric resin coated polyester fabric. Blanket insulation shall have a minimum R-value of 30. The outer fabric of the blankets shall be light brown and UV, water, mildew and flame resistant.

Blankets installed on backflow preventer assemblies with an enclosure shall have a securing mechanism using zippers, Velcro, grommets, snaps or buttons or a combination thereof.

Blankets shall be sized and installed in conformance with the manufacturer's instructions. One copy of the manufacturer's instructions shall be furnished to the Engineer.

Full compensation for backflow preventer assembly blanket shall be considered as included in the contract unit price paid for various sizes of backflow preventer assemblies involved and no separate payment will be made therefor.

### ***Sprinklers***

Sprinklers shall conform to the type, pattern, material, and operating characteristics listed in the "Sprinkler Schedule" shown on the plans.

### ***Sprinkler (Type C-2 MOD)***

Sprinkler (Type C-2 MOD) shall be furnished and installed as shown on the plans, in conformance with these special provisions and as directed by the Engineer.

Drainpipe shall be commercially available, rigid, perforated, polyvinyl chloride (PVC) pipe with holes spaced not more than 6 inches on center on one side of the pipe.

Drain grate shall be a commercially available, one-piece, injection molded drain grate manufactured from structural foam polyolefins, with ultraviolet light inhibitors. Color of drain grate shall be black.

Gravel for filling the drainpipe shall have 100 percent passing the 3/4 inch sieve and 100 percent retained on the 1/2 inch sieve. Gravel shall be clean, washed, dry and free from clay or organic material.

### ***Subsurface Emitter Line***

Subsurface emitter line shall be furnished and installed as shown on the plans, in conformance with these special provisions and as directed by the Engineer. Emitter line shall be treated with Treflan for root control.

Lines shall be 1/4 in diameter and have an emitter spacing of 18 inches. Emitters shall be pressure compensating between 15-60 psi.

Subsurface emitter line shall be installed between 4-8 inches below the finished grade surface.

Each subsurface emitter zone shall have a flush valve located on the downstream side of the zone and an Air Relief Valve located in the highest point of the zone.

Subsurface emitter line shall be connected by PVC compression type fittings. The contract unit price paid for Subsurface Emitter shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing Subsurface Emitter, complete in place, as shown on the plans, as specified in these special

provisions, and as directed by the Engineer.

***Automatic Flush Valves***

Flush valves shall consist of a valve box, valve, riser and PVC compression tee. Flush valves shall be installed at the ends of supply lines for subsurface emitter line as shown on the plans. Flush valves shall have an operating volume of 0.8 gpm and sealing pressure of 2 psi.

***Filter Assembly Unit***

A filter assembly unit shall consist of a filter housing, a reusable filter cartridge, a ball valve, fittings, pipe, and valve box as shown on the plans.

Filter assembly units shall withstand a cold water working pressure of 150 psi.

Pressure loss through the filter assembly units shall not exceed the following:

FILTER ELEMENT SIZE (inches)	MAX FLOW RATE (GPM)	PRESSURE LOSS AT MAX FLOW (psi)
2	50	5

Filter housings shall be manufactured of reinforced polypropylene plastic.

Filter cartridges shall be reusable stainless steel and shall be capable of 100 size mesh filtration.

Filter cartridges shall be threaded plastic rings attached to one another to produce a reusable cylindrical form filter. Filters shall be capable of 140-mesh size mesh filtration.

Ball valves in filter assembly units shall be polyvinyl chloride (PVC). The ball seats shall be high molecular weight-high density polyethylene.

***Air Relief Valve***

Air relief valves shall consist of air relief valve, valve box, fittings, and pipe as shown on the plans.

Air relief valves shall have an operating range from 0 psi to 230 psi.

***Pressure Reducing Valve***

Pressure reducing valves shall consist of pressure reducing valves, pressure gages, valve boxes with wire mesh and gravel or crushed rock, fittings, and pipe as shown on the plans.

Pressure reducing valves shall be the spring diaphragm type, manufactured of bronze or cast iron construction, hydraulically operated and pilot controlled, and shall have flanged or threaded pipe connections. Pressure reducing valves with threaded connections shall be installed with unions on the inlet side of the valves. Pressure reducing valves shall not have internal filter screens.

Pressure gages for pressure reducing valves shall be hermetically sealed with neoprene and shall have watertight polycarbonate cases and covers with molded clear polycarbonate windows. Gages shall be 2 inches in diameter, calibrated from 0 psi to 160 psi, and have black aluminum pointers that contrast with gage faces and have brass stems. Internal gage parts shall be brass and phosphor bronze.

Pressure reducing valves shall have an adjustable discharge pressure range of 5 psi to 100 psi.

### ***Final Irrigation System Check***

A final check of new irrigation facilities shall be performed not more than 40 working days and not less than 30 working days prior to acceptance of the contract.

The length of watering cycles using potable water measured by water meters for the final check of irrigation facilities will be determined by the Engineer.

Remote control valves connected to existing and new irrigation controllers shall be checked for automatic performance when the controllers are in automatic mode.

Unsatisfactory performance of irrigation facilities installed or modified by the Contractor shall be repaired and rechecked at the Contractor's expense until satisfactory performance is obtained, as determined by the Engineer.

Repair or replacement of existing irrigation facilities due to unsatisfactory performance shall conform to the provisions in "Existing Highway Irrigation Facilities" of these special provisions.

Nothing in this section "Final Irrigation System Check" shall relieve the Contractor of full responsibility for making good or repairing defective work or materials found before the formal written acceptance of the entire contract by

the Director.

Full compensation for checking the irrigation systems prior to the acceptance of the contract shall be considered as included in the contract lump sum price paid for plant establishment work and no additional compensation will be allowed therefor.

## ***Signals and Lighting***

### ***3-01 Description***

Traffic signals and lighting systems shall conform to the provisions in Section 86, "Electrical Systems," of the Standard Specifications and these special provisions.

Traffic signal work shall be performed at the following locations:

- A. West Ridgecrest Boulevard and Downs Street
- B. West Ridgecrest Boulevard and Norma Street

The work also includes traffic signal interconnect on West Ridgecrest Boulevard between China Lake Boulevard and Downs Street.

### ***3-02 Cost Break-Down***

Cost break-downs shall conform to the provisions in Section 86-1.03, "Cost Break-Down," of the Standard Specifications and these special provisions.

The Engineer shall be furnished a cost break-down for each contract lump sum item of work described in this Section 4-3.

The cost break-down shall be submitted to the Engineer for approval within 15 days after the contract has been approved. The cost break-down shall be approved, in writing, by the Engineer before any partial payment for the items of electrical work will be made.

### ***3-03 Foundations***

#### ***Summary***

This work includes constructing cast-in-drilled-hole concrete pile foundations for traffic signal and lighting standards.

Comply with Section 86-2.03, "Foundations," of the Standard Specifications.

#### ***Materials***

Concrete must contain not less than 590 pounds of cementitious material per cubic yard.

## ***Construction***

For standards located in sidewalk areas, the pile foundation must be:

1. Placed to final sidewalk grade before the sidewalk is placed
2. Square for the top 4 inches

## ***Payment***

Payment for cast-in-drilled-hole concrete pile foundations shall conform to the provisions in Section 86-8, "Payment," of the Standard Specifications.

### ***3-04 Standards, Steel Pedestals, and Posts***

Standards, steel pedestals, and posts for traffic signal and lighting standards shall conform to the provisions in Section 86-2.04, "Standards, Steel Pedestals and Posts," of the Standard Specifications, "Steel Structures" of these special provisions, and the following requirements.

Steel bolts not designated on the plans as high-strength (HS) or stainless steel shall be for general applications and shall conform to the requirements in ASTM Designation: A 307.

Anchor bolts shall conform to the requirements in ASTM Designation: F 1554, Grade 36. High-strength (HS) anchor bolts shall conform to the requirements in ASTM Designation: F 1554, Grade 105.

The sign mounting hardware shall be installed at the locations shown on the plans.

Street name signs shall be installed on signal mast arms using a minimum 3/4" x 0.020" round edge stainless steel strap and saddle bracket. The strap shall be wrapped at least twice around the mast arm, tightened, and secured with a 3/4" stainless strap seal. The sign panel shall be leveled and hardware securely tightened.

Handhole reinforcement rings for standards, steel pedestals, and posts shall be continuous around the handholes.

### ***3-05 Conduit***

Conduit to be installed underground shall be Type 1 or Type 3 unless otherwise specified.

The conduit in a foundation and between a foundation and the nearest pull box shall be Type 1 or Type 3.

When a standard coupling cannot be used for joining Type 1 conduit, a UL-listed threaded union coupling conforming to the provisions in Section 86-2.05C, "Installation," of the Standard Specifications, or a concrete-tight split coupling, or concrete-tight set screw coupling shall be used.

When Type 3 conduit is placed in a trench (not in pavement or under portland cement concrete sidewalk), after the bedding material is placed and the conduit is installed, the trench shall be backfilled to not less than 4 inches above the conduit with minor concrete conforming to the provisions in Section 90-10, "Minor Concrete," of the Standard Specifications, except the concrete shall contain not less than 421 pounds of cementitious material per cubic yard. The remaining trench shall be backfilled to finished grade with backfill material.

Conduit runs shown on the plans to be located behind curbs may be installed in the street, within 3 feet of, and parallel with the face of the curb, by the trenching in pavement method in conformance with the provisions in Section 86-2.05C, "Installation," of the Standard Specifications. Pull boxes shall be located behind the curb or at the locations shown on the plans.

After conductors have been installed, the ends of conduits terminating in pull boxes, service equipment enclosures, and controller cabinets shall be sealed with an approved type of sealing compound.

At those locations where conduit is required to be installed under pavement and underground facilities designated as high priority subsurface installation under Govt Code § 4216 et seq. exist, conduit shall be placed by the trenching in pavement method in conformance with the provisions in Section 86-2.05C, "Installation," of the Standard Specifications.

At locations where conduit is required to be installed under pavement and if a delay to vehicles will not exceed 5 minutes, conduit may be installed by the "Trenching in Pavement Method."

### **3-06 Pull Boxes**

Grout shall not be placed in the bottom of pull boxes.

Pull box covers shall not include the word "CALTRANS", but shall otherwise comply with Standard Plan ES-8, "Electrical Systems (Pull Box Details)."

Pull boxes installed in existing sidewalk areas shall include replacement of adjacent concrete to match existing conditions.

Full compensation for installing pull boxes in existing sidewalks shall be considered as included in the contract lump sum price paid for signal and lighting item involved, and no additional compensation will be allowed therefor.

### **3-07 Conductors, Cables, and Wiring**

Splices shall be insulated by "Method B" or, at the Contractor's option, splices of conductors shall be insulated with heat-shrink tubing of the appropriate size after thoroughly painting the spliced conductors with electrical insulating coating.

Conductors shall be wrapped around projecting end of conduit in pull boxes, as shown on the plans. Cables shall be secured to the projecting end of conduit in pull boxes to prevent pulling of cables without removing the securing device.

### **3-08 Service**

Service equipment enclosures shall be the aluminum type.

Circuit breakers shall be the cable-in/cable-out type, mounted on non-energized clips. All circuit breakers shall be mounted vertically with the up position of the handle being the "ON" position.

Each service shall be provided with up to 2 main circuit breakers which shall disconnect ungrounded service entrance conductors. Where the "Main" circuit breaker consists of 2 circuit breakers as shown on the plans or required in the special provisions, each of the circuit breakers shall have a minimum interrupting capacity of 10,000 A, rms.

Coordination for electrical power connection with the utility company shall be made by the Contractor with Southern California Edison. The Contractor shall pay all required utility fees and costs related to providing electric service connections. The Contractor shall obtain utility company approval of service entrance and metering equipment shop drawings prior to fabrication of service equipment.

### **3-09 Numbering Electrical Equipment**

The placement of numbers on electrical equipment will be done by others.

### **3-10 Model 170E Controller Assembly**

The Contractor shall furnish and install Model 170E controller assemblies. Controller assemblies shall conform to the provisions in Section 86-3.03, "Model 170 and Model 2070 Controller Assemblies," of the Standard Specifications.

The Contractor shall furnish Model 332 controller cabinets, fabricated of aluminum. The Contractor shall construct each controller cabinet foundation as shown on the plans for Model 332 cabinets (including furnishing and installing

anchor bolts), shall install the controller cabinet on the foundation, and shall make field wiring connections to the terminal blocks in the controller cabinet.

All convenience receptacles shall be Ground Fault Interrupter (GFI) type.

An 18 inch fluorescent light shall be provided in the controller cabinet.

The Model 170E controller and controller cabinet shall be manufactured and furnished by the same manufacturer and shall form a complete functional controller system capable of providing the traffic signal operations as shown on the plans and as specified in these special provisions. All traffic control equipment to be furnished shall be currently acceptable to Caltrans Laboratory, Sacramento, CA, and shall currently be listed on the Department of Transportation Qualified Products List (QPL).

The Contractor shall arrange to have a signal technician, qualified to work on the controller and employed by the controller manufacturer or his representative, present at the time the equipment is turned on. Said technician will be required to make all controller entries, as determined and required by the Engineer, prior to turn-on of the signal.

The Contractor shall supply all necessary software with the Model 170E controller. Software shall be compatible with those presently in use by the City, shall have a time base coordination, and be capable of operating all phasing up to eight phase "quad left" operations.

The software being used by the City is the Bi Tran System, MS-200CA that uses a Type 412C prom module.

A Model 412C prom module shall be included as part of the Model 170E controller unit and shall provide for 32K EPROM (27256), 8K RAM and 16K zero power RAM (memory map utilizes memory select 4).

Full documentation of the operating software shall be included in the Maintenance and Operations Manual.

The Model 332 cabinet auxiliary equipment shall include, as a minimum, the following quantities of the items noted:

Quantity	Model	Item
1	210	Monitor Unit
2	204	Flasher Units
3	242	Two Channel DC Isolator Units
12	200	Load Switch Units
4	430	Heavy Duty Relay Units

Cabinets shall include any other equipment not listed herein that is necessary for proper operation of the traffic signals and lighting.

Timing of controller functions will be the responsibility of the City of Ridgecrest. The Contractor shall notify the Engineer not less than five (5) working days in advance of the signal turn-on.

### **3-11 Light Emitting Diode Signal Module**

#### **Summary**

This work includes installing LED signal module. Comply with Section 86, "Electrical Systems," of the Standard Specifications.

Use LED signal module as the light source for the following traffic signal faces:

1. 12-inch section
2. 12-inch arrow section

#### **Quality Control and Assurance**

Module must be one listed on the Pre-Qualified Products List for LED traffic signals at:

[http://www.dot.ca.gov/hq/esc/approved\\_products\\_list](http://www.dot.ca.gov/hq/esc/approved_products_list)

#### **Warranty**

The manufacturer must provide a written warranty against defects in materials and workmanship for LED signal modules for a minimum period of 48 months after installation of LED signal modules. Replacement LED signal modules must be provided within 15 days after receipt of failed LED modules at the Contractor's expense. All warranty documentation must be submitted to the Engineer before installation. Replacement LED signal modules must be delivered to the City of Ridgecrest.

#### **Materials**

Minimum power consumption for LED signal module must be 5 W.

LED signal module must have an operational lifecycle rating of 48 months. During the operational lifecycle, LED signal module must meet all parameters

of this specification.

LED signal module must be designed for installation in the door frame of standard traffic signal housing.

LED signal module must:

1. Be 4 pounds maximum weight
2. Be manufactured for 12-inch circular and arrow section
3. Be from the same manufacturer
4. Be the same model for each size
5. Be sealed units with:
  - 5.1. 2 color-coded conductors for power connection, except for lane control LED signal modules use 3 color-coded conductors.
  - 5.2. Printed circuit board and power supply contained inside and complying with Chapter 1, Section 6 of TEES published by the Department of Transportation.
  - 5.3. Lens that is:
    - 5.3.1. Integral to the units
    - 5.3.2. Convex or flat with a smooth outer surface
    - 5.3.3. Made of UV stabilized plastic or glass, and withstands UV exposure from direct sunlight for 48 months without exhibiting evidence of deterioration
  - 5.4. 1-piece EPDM gasket
6. Include 3-foot long conductors with quick disconnect terminals attached
7. Be sealed in door frames
8. Fit into existing traffic signal section housing and comply with ITE publication, Equipment and Material Standards, Chapter 2, "Vehicle Traffic Control Signal Heads"

Individual LEDs must be wired so catastrophic loss or failure of 1 LED will not result in loss of more than 5 percent of the signal module light output. Failure of an individual LED in a string must not result in loss of entire string or other indication.

No special tools for installation are allowed.

### **12-Inch Arrow**

Comply with Section 9.01 of ITE publication, Equipment and Material Standards, Chapter 2, "Vehicle Traffic Control Signal Heads" for arrow indications.

LED signal module must:

1. Be weather tight and connect directly to electrical wiring.
2. Be capable of optical unit replacement.
3. Be a single, self-contained device, ready for installation into traffic signal housing.
4. Have manufacturer's name, trademark, model number, serial number, lot number, month and year of manufacture, and required operating characteristics, including rated voltage, power consumption, and volt-ampere, permanently marked on the back of the module.
5. Have a symbol of module type and color. Symbol must be an inch in diameter. Color must be written out in 0.50 inch high letters next to the symbol.
6. Be AlInGaP technology for red and yellow indications and gallium nitride technology for green indications.
7. Be ultra bright type rated for 100,000 hours of continuous operation from -40 °C to +74 °C.
8. Have a maximum power consumption as follows:

**Power Consumption Requirements**

LED Signal Module Type	Power Consumption (Watts)					
	Red		Yellow		Green	
	25 °C	74 °C	25 °C	74 °C	25 °C	74 °C
12-inch circular	11	17	22	25	15	15
12-inch arrow	9	12	10	12	11	11

Lens may be tinted, or may use transparent film or materials with similar characteristics to enhance "ON/OFF" contrasts. Tinting or other materials to enhance "ON/OFF" contrast must not affect chromaticity and must be uniform across the face of the lens.

If polymeric lens is used, surface coating or chemical surface treatment must be applied for front surface abrasion resistance.

Power supply must be integral to the module.

Internal components must be adequately supported to withstand mechanical shock and vibration from high winds and other sources.

Lens and LED signal module material must comply with the ASTM specifications for that material.

Enclosures containing either the power supply or electronic components of LED signal module, except lenses, must be made of UL94V0 flame-retardant material.

If a specific mounting orientation is required, the LED signal module must have prominent and permanent vertical markings for accurate indexing and orientation within the signal housing. Markings must include an up arrow, or the word "UP" or "TOP."

LED signal module must meet or exceed the following values when operating at 25 °C:

Angle (v,h)	12-inch		
	Red	Yellow	Green
2.5, ±2.5	399	798	798
2.5, ±7.5	295	589	589
2.5, ±12.5	166	333	333
2.5, ±17.5	90	181	181
7.5, ±2.5	266	532	532
7.5, ±7.5	238	475	475
7.5, ±12.5	171	342	342
7.5, ±17.5	105	209	209
7.5, ±22.5	45	90	90
7.5, ±27.5	19	38	38
12.5, ±2.5	59	119	119
12.5, ±7.5	57	114	114
12.5, ±12.5	52	105	105
12.5, ±17.5	40	81	81
12.5, ±22.5	26	52	52
12.5, ±27.5	19	38	38
17.5, ±2.5	26	52	52
17.5, ±7.5	26	52	52
17.5, ±12.5	26	52	52
17.5, ±17.5	26	52	52
17.5, ±22.5	24	48	48
17.5, ±27.5	19	38	38

**Minimum Luminance for Arrows Indications**

	Red	Yellow	Green
Arrow Indication	1,605	3,210	3,210

LED signal module must meet or exceed the following illumination values for

48 months when operating over a temperature range of -40 °C to + 74 °C. Yellow LED signal module must meet or exceed the following illumination values for 48 months, when operating at 25 °C:

Angle (v,h)	12-inch		
	Red	Yellow	Green
2.5, ±2.5	339	678	678
2.5, ±7.5	251	501	501
2.5, ±12.5	141	283	283
2.5, ±17.5	77	154	154
7.5, ±2.5	226	452	452
7.5, ±7.5	202	404	404
7.5, ±12.5	145	291	291
7.5, ±17.5	89	178	178
7.5, ±22.5	38	77	77
7.5, ±27.5	16	32	32
12.5, ±2.5	50	101	101
12.5, ±7.5	48	97	97
12.5, ±12.5	44	89	89
12.5, ±17.5	34	69	69
12.5, ±22.5	22	44	44
12.5, ±27.5	16	32	32
17.5, ±2.5	22	44	44
17.5, ±7.5	22	44	44
17.5, ±12.5	22	44	44
17.5, ±17.5	22	44	44
17.5, ±22.5	20	41	41
17.5, ±27.5	16	32	32

**Minimum Maintained Luminance for Arrow Indications**

	Red	Yellow	Green
Arrow Indication	1,610	3,210	3,210

LED signal module must comply with the following chromaticity requirements for 48 months when operating over a temperature range of -40 °C to + 74 °C.

### Chromaticity Standards (CIE Chart)

Red	Y: not greater than 0.308, or less than 0.998 - x
Yellow	Y: not less than 0.411, nor less than 0.995 - x, nor greater than 0.452
Green	Y: not less than 0.506 - 0.519x, nor less than 0.150 + 1.068x, nor more than 0.730 - x

LED signal module must operate:

1. At a frequency of 60 Hz  $\pm$  3 Hz, over a voltage range from 95 V(ac) to 135 V(ac), without perceptible flicker to the unaided eye. Fluctuations of line voltage must have no visible effect on luminous intensity of the indications. Rated voltage for measurements must be 120 V(ac).
2. Compatible with currently used controller assemblies, including solid state load switches, flashers, and conflict monitors. Comply with TEES Chapters 3 and 6. If a 20 mA alternating current or less is applied to the unit, the voltage read across the 2 leads must be 15 V(ac) or less.

Wiring and terminal block must comply with Section 13.02 of ITE publication, Equipment and Material Standards, Chapter 2, "Vehicle Traffic Control Signal Heads." Electrical connection for each Type 1 LED signal module must be 2 secured, color-coded, 3-foot long, 600 V(ac), 20 AWG minimum stranded jacketed copper wires. Wires must comply with NEC, rated for service at + 105 °C.

LED signal module on-board circuitry must:

1. Include voltage surge protection to withstand high-repetition noise transients. The voltage surge protection must comply with NEMA Standard TS2, Section 2.1.6.
2. Comply with FCC, Title 47, SubPart B, Section 15 regulations for Class A emission limits for electronic noise.

LED signal module must provide a power factor of 0.90 or greater.

Total harmonic distortion from current and voltage induced into an alternating current power line by LED signal module must not exceed 20 percent at an operating temperature of 25 °C.

When power is applied to LED signal module, light emission must occur within 90 ms.

### **3-12 Battery Backup System**

#### **Summary**

The Contractor shall furnish and install a complete battery backup system (BBS). The system shall comply with Section 86, "Signals, Lighting and Electrical Systems," of the Standard Specifications and TEES.

#### **Functional Testing**

After complete installation, the Contractor must perform a BBS functional test. Test for 30 minutes of continuous, satisfactory operation with utility power turned off. Perform test in the presence of the Engineer.

#### **Warranty**

Batteries must be warranted by the manufacturer to operate within a temperature range of -25 °C to + 60 °C for 2 years.

Batteries must have a written warranty against defects in materials and workmanship from the manufacturer prorated for a period of 60 months after installation. The Contractor must provide the Engineer with all warranty documentation before installation. Replacement batteries must be available within 5 business days after receipt of failed batteries at no cost to the City except the cost of shipping the failed batteries. Replacement batteries must be delivered to the City of Ridgecrest.

#### **Materials**

Batteries must:

1. Be deep cycle, sealed prismatic, lead-calcium-based, absorbed-glass mat and valve-regulated lead acid (AGM/VRLA) type
2. Have voltage rating of 12 V
3. Be group size 24
4. Be commercially available and stocked locally
5. Have a carrying handle
6. Be marked with date code, maximum recharge data, and recharge cycles
7. Have 2 top-mounted, threaded, stud posts that include all washers and nuts required for attaching 3/8-inch ring lugs of a BBS battery harness
8. Include rubber insulating protective covers for protecting the lugs, posts, and wiring - red for positive terminal and black for negative

- terminal
- 9. Be new and fully-charged when furnished
- 10. Be free from damage or deformities

External cabinet must be one listed on the Pre-Qualified Products List at:

[http://www.dot.ca.gov/hq/esc/approved\\_products\\_list/](http://www.dot.ca.gov/hq/esc/approved_products_list/)

External cabinet must be capable of housing:

- 1. 4 batteries
- 2. Inverter/charger unit
- 3. Power transfer relay
- 4. Manually-operated bypass switch
- 5. Required control panels
- 6. Wiring and harnesses

The following details must comply with Section 86-3.04, "Controller Cabinets," of the Standard Specifications and TEES:

- 1. Door construction, including material, thickness, coating, and welds
- 2. Frame
- 3. Door seals
- 4. Continuous stainless steel piano hinge or 4 leaves with 2 bolts on each side of each leaf, used to connect the door to external cabinet
- 5. Padlock clasp or latch and lock mechanism

The external cabinet must be ventilated by using louvered vents, filter, and a thermostatically controlled fan. Fan must be AC-operated from the same line output as the Model 332 cabinet. A 2-position terminal block must be provided on the fan panel, along with 10 feet of connected hookup wire.

The external cabinet surface must be anodized aluminum. Anti-graffiti paint must not be used.

The external cabinet must include all bolts, washers, nuts, and cabinet-to-cabinet coupler fittings necessary for mounting it to the Model 332 cabinet.

Fasteners for the external cabinet must include:

- 1. 8 cabinet mounting bolts that are 18-8 stainless steel hex head, fully-threaded, and 3/8" – 16 x 1"
- 2. 2 washers per bolt designed for 3/8-inch bolt and are 18-8 stainless steel 1-inch OD round flat type
- 3. K-lock nut per bolt: K-lock washer that is 18-8 stainless steel and

hex-nut

External cabinet to Model 332 cabinet couplings must include a conduit for power connections between the 2 cabinets. Couplings must include:

1. 2-inch nylon-insulated steel chase nipple, T & B 1947 or equivalent
2. 2-inch sealing, steel locknut, T & B 146SL or equivalent
3. 2-inch nylon-insulated steel bushing, T & B 1227 or equivalent

### ***Construction***

Mount external cabinet to either the left or right side of Model 332 cabinet. The typical side-mounting location of external cabinet is flush with the bottom of the Model 332 cabinet and approximately equidistant from the front and rear door edges.

### ***Measurement and Payment***

Full compensation for furnishing, assembling and installing battery backup system is included in the contract lump sum price paid for traffic signals and lighting, and no separate payment will be made therefor.

## **3-13 Light Emitting Diode Pedestrian Signal Face Modules**

### ***Summary***

This work includes installing LED pedestrian signal face (PSF) module into standard Type A pedestrian signal housing. Comply with Section 86, "Electrical Systems," of the Standard Specifications.

### ***Quality Control and Assurance***

Module must be one listed on the Pre-Qualified Products List for LED traffic signals at:

[http://www.dot.ca.gov/hq/esc/approved\\_products\\_list](http://www.dot.ca.gov/hq/esc/approved_products_list)

### ***Warranty***

The manufacturer must provide a written warranty against defects in materials and workmanship for LED PSF modules for a minimum period of 48 months after installation of LED PSF modules. Replacement LED PSF modules must be provided within 15 days after receipt of failed LED PSF modules at your expense. All warranty documentation must be submitted to the Engineer before

installation. Replacement LED PSF modules must be delivered to the City of Ridgecrest.

### *Materials*

LED PSF module must:

1. Be from the same manufacturer.
2. Be installed in standard Type A pedestrian signal housing, "UPRAISED HAND" and "WALKING PERSON." Do not include reflectors.
3. Use LED as the light source.
4. Be designed to mount behind or replace face plates of standard Type A housing as specified in ITE publication, Equipment and Material Standards, Chapter 3, "Pedestrian Traffic Control Signal Indications" and the "California MUTCD."
5. Have a minimum power consumption of 10 W.
6. Use required color and be ultra bright type rated for 100,000 hours of continuous operation from -40 °C to +74 °C.
7. Be able to replace signal lamp optical units and pedestrian signal faces with both LED and incandescent light sources.
8. Fit into pedestrian signal section housings without modifications to the housing. The housing must comply with ITE publication, Equipment and Materials Standards, Chapter 3, "Pedestrian Traffic Control Signal Heads."
9. Be a single, self-contained device, not requiring on-site assembly for installation into standard Type A housing.
10. Have the following information permanently marked on the back of module:
  - 10.1. Manufacturer's name
  - 10.2. Trademark
  - 10.3. Model number
  - 10.4. Serial number
  - 10.5. Lot number
  - 10.6. Month and year of manufacture
  - 10.7. Required operating characteristics, as follows:
    - 10.7.1. Rated voltage
    - 10.7.2. Power consumption
    - 10.7.3. Volt-ampere (VA)
    - 10.7.4. Power factor
11. Have prominent and permanent vertical markings for accurate indexing and orientation within the signal housing if a specific mounting orientation is required. Markings must include an up arrow, or the word "UP" or "TOP." Marking must be a minimum of 1-inch diameter.

Circuit board and power supply must be contained inside the LED PSF modules. Circuit board must comply with Chapter 1, Section 6 of TEES published by the Department of Transportation.

Individual LEDs must be wired so catastrophic loss or failure of 1 LED will not result in loss of more than 5 percent of the PSF module light output. Failure of an individual LED in a string must not result in the loss of entire string or other indication.

LEDs must be evenly distributed in each indication. Do not use outline forms. No special tools for installation are allowed.

Installation of the LED PSF module into pedestrian signal face must require only removal of lenses, reflectors, lamps, and existing LED modules.

Power supply for LED PSF module must be integral to the module. Power supply for each symbol must be isolated to avoid turn-on conflict.

Assembly and manufacturing processes for LED PSF module must assure that all internal components are adequately supported to withstand mechanical shock and vibration from high winds and other sources.

Material used for LED PSF module must comply with ASTM D 3935.

Enclosures containing either the power supply or electronic components of LED PSF module, except lenses, must be made of UL94VO flame-retardant material.

Color of "UPRAISED HAND" symbol must be portland orange.

Color of "WALKING PERSON" symbol must be lunar white.

Each symbol must not be less than 10 inches high and 6.5 inches wide. Uniformity ratio of illuminated symbols must not exceed 4 to 1 between highest and lowest luminance areas. Symbols must comply with ITE publication, Equipment and Material Standards, Chapter 3, "Pedestrian Traffic Control Signal Indications," and the "California MUTCD."

LED PSF module must maintain an average luminance value over 48 months of continuous use in signal operation for a temperature range of -40 °C to + 74 °C. In addition, LED PSF modules must meet or exceed the following luminance values upon initial testing at 25 °C.

### Luminance Values

PSF module	Luminance
UPRAISED HAND	1,094 FL
WALKING PERSON	1,547 FL

Color output of LED PSF module must comply with chromaticity requirements in Section 5.3 of ITE publication, Equipment and Material Standards, Chapter 3, "Pedestrian Traffic Control Signal Indications."

Measured chromaticity coordinates of LED PSF module must comply with the following chromaticity requirements for 48 months when operating over a temperature range of -40 °C to + 74 °C.

### Chromaticity Standards (CIE Chart)

UPRAISED HAND (portland orange)	Not greater than 0.390, nor less than 0.331, nor less than 0.997-X
WALKING PERSON (lunar white)	X: not less than 0.280, nor greater than 0.320 Y: not less than 1.055*X - 0.0128, nor greater than 1.055*X + 0.0072

LED PSF module maximum power consumption must not exceed the following values:

### Power Consumption Requirements

PSF module	Power Consumption @ 24° C	Power Consumption @ 74° C
UPRAISED HAND	10.0 W	12.0 W
WALKING PERSON	9.0 W	12.0 W

Wiring and terminal block must comply with Section 13.02 of ITE publication, Equipment and Material Standards, Chapter 2, "Vehicle Traffic Control Signal Heads." The LED PSF module must be supplied with spade lugs and 3 secured, color-coded, 3-foot long, 600 V(ac), 20 AWG minimum stranded jacketed copper wires. Wires must comply with NEC, rated for service at + 105 °C. LED PSF module must operate:

1. At a frequency of 60 Hz ± 3 Hz over a voltage range from 95 V(ac) to 135 V(ac) without perceptible flicker to the unaided eye. Fluctuations of line voltage must have no visible effect on luminous intensity of the indications. Rated voltage for measurements must be 120 V(ac).
2. Compatible with currently used controller assemblies including solid state load switches, flashers, and conflict monitors. Comply

with TEES Chapters 3 and 6. If a 20 ma alternating current or less is applied to the unit, the voltage read across the 2 leads must be 15 V(ac) or less.

LED PSF module on-board circuitry must:

1. Include voltage surge protection to withstand high-repetition noise transients. The voltage surge protection must comply with NEMA Standard TS2, Section 2.1.6.
2. Comply with FCC, Title 47, SubPart B, Section 15 regulations for Class A emission limits for electronic noise.

LED PSF module must provide a power factor of 0.90 or greater.

Total harmonic distortion from current and voltage induced into an alternating current power line by LED PSF module must not exceed 20 percent at an operating temperature of 25 °C.

The LED PSF module circuitry must prevent perceptible light emission to the unaided eye when a voltage, 50 V(ac) or less is applied to the unit.

When power is applied to LED PSF module, light emission must occur within 90 ms.

The "UPRAISED HAND" and "WALKING PERSON" symbol indications must be electrically isolated from each other. Sharing a power supply or interconnect circuitry between the 2 indications is not allowed.

### **3-14 Video Detection System**

The video detection system shall be Auto scope Solo Terra, or approved equal. The City of Ridgecrest shall be the sole judge as to the quality and suitability of items offered as a substitute. Evaluation of equivalence shall be made on the basis of physical properties, performance, longevity, ease of maintenance, dimensional compatibility, quality, durability and ability to fulfill its intended function. The City's decision shall be final.

#### **SYSTEM INSTALLATION AND TRAINING**

The supplier of the video detection system shall supervise the installation and testing of the video detection system and computer equipment. A factory certified representative from the supplier shall be on-site during installation.

One four-hour session of training shall be provided to City personnel in the operation, setup and maintenance of the video detection system. In addition, course instruction on configuring detection zones for detection and data

collection, and materials shall be provided for a maximum of 10 persons and shall be conducted at a location selected by the City.

#### WARRANTY, SERVICE AND SUPPORT

Its supplier shall warrant the video detection system for a minimum of two (2) years from the date of installation. Ongoing software support by the supplier shall include software updates of the MVP sensor, modular cabinet interface unit and supervisor computer applications. These updates shall be provided free of charge during the warranty period. The supplier shall maintain a program for technical support and software updates following expiration of the warranty period. This program shall be available to the City in the form of a separate agreement for continuing support.

#### DELIVERY

Guaranteed delivery date must be shown on the vendor's bid. Delivery shall be made within 30 days of receipt of order.

#### 10-3.15 Non-invasive, Magneto-inductive Vehicle Sensor

##### GENERAL DESCRIPTION

Magneto-inductive vehicle sensors shall be located as shown on the plan, in accordance with these special provisions.

##### CONDUIT INSTALLATION REQUIREMENTS

- A. The conduit shall be installed at a nominal centerline depth of 21 inches from the road surface following crownline.
- B. The depth of the centerline from the road surface shall be maintained between 18 and 21 inches over its entire length.
- C. The centerline of the conduit shall not deviate horizontally more than required.
- D. The end of the conduit at the pull box shall have grade to permit drainage.

##### REQUIREMENT OF VERIFICATION OF PROPER INSTALLATION

- A. The Contractor shall provide to the Engineer a log of the boring depth measured every two feet in boring distance.
- B. When installing the non-invasive sensor, home-run cable and detector, the Contractor shall verify that the installation meets requirements by measuring the inductance of the non-invasive sensor assembly with a properly designed, matched vehicle detector.

- C. The inductance shall be the sum of probe inductance, inductance of lead-in cable and home-run cable and shall be within  $\pm 20$  percent of the calculated inductance.
- D. When installing the non-invasive sensor, home-run cable and detector, the Contractor shall verify that the installation meets requirements by measuring the DC resistance of the non-invasive sensor assembly with a properly calibrated ohm meter.
- E. The measured DC resistance shall be the sum of 1.5 ohms per probe, 3.0 ohms per 100 feet of lead in wire and 2.0 ohms per 100 feet of home-run cable and shall be within  $\pm 20\%$  of the calculated DC resistance.
- F. When installing the non-invasive sensor assembly, home-run cable and detector, the Contractor shall measure the change in inductance of the installed non-invasive sensor assembly using a properly designed, matched vehicle detector when a standard, midsize vehicle is driven directly over the sensor.
- G. The measured change in inductance for a standard midsize vehicle shall be in the range from 120nH to 1200nH.
- H. When installing the Non-invasive Microloop assembly, home-run cable and detector, the Contractor shall provide a log of the measured inductance, DC resistance and the change in inductance for each installed non-invasive sensor assembly.

### **3-15 Pedestrian Push Buttons<sup>5</sup>**

Signs for pedestrian push button assemblies shall be porcelain enamel on metal.

Pedestrian push buttons shall be solid state type, with no moving parts. When activated, the button assembly shall emit a beep tone and an LED light shall illuminate to indicate activation.

### **3-16 Luminaires**

Ballasts shall be the lag or lead regulator type.

### **3-17 Decorative Electroliers**

Specifications to be determined.

### **3-18 Photoelectric Controls**

Contactors shall be the mechanical armature type.

### **3-19 Mast-Arm Mounted Street Name Signs**

Letter sizes for mast-arm mounted street name signs shall be 8-inch upper case, 6-inch lower case, reflectorized white on reflectorized green background. Reflectorization shall be equal to 3M High Intensity Scotchlite sheeting, and the sign panel shall have a 1-inch minimum white reflectorized border.

### **3-20 Payment**

Full compensation for all work shown on the project plans, the Standard Plans, and as specified in the Standard Specifications and in this Section 3 of these special provisions, and as directed by the Engineer, shall be considered as included in the contract lump sum payment for Traffic Signals and Lighting, and no separate payments for any item of work incidental to completion of the project will be made.

***SECTION V: FEDERAL PROVISIONS***

**SECTION 14. FEDERAL REQUIREMENTS FOR FEDERAL-AID CONSTRUCTION PROJECTS**

**GENERAL.**—The work herein proposed will be financed in whole or in part with Federal funds, and therefore all of the statutes, rules and regulations promulgated by the Federal Government and applicable to work financed in whole or in part with Federal funds will apply to such work. The "Required Contract Provisions, Federal-Aid Construction Contracts, "Form FHWA 1273, are included in this Section 14. Whenever in said required contract provisions references are made to "SHA contracting officer," "SHA resident engineer," or "authorized representative of the SHA," such references shall be construed to mean "Engineer" as defined in Section 1-1.18 of the Standard Specifications.

**PERFORMANCE OF PREVIOUS CONTRACT.**—In addition to the provisions in Section II, "Nondiscrimination," and Section VII, "Subletting or Assigning the Contract," of the required contract provisions, the Contractor shall comply with the following:

The bidder shall execute the CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS located in the proposal. No request for subletting or assigning any portion of the contract in excess of \$10,000 will be considered under the provisions of Section VII of the required contract provisions unless such request is accompanied by the CERTIFICATION referred to above, executed by the proposed subcontractor.

**NONCOLLUSION PROVISION.**—The provisions in this section are applicable to all contracts except contracts for Federal Aid Secondary projects.

Title 23, United States Code, Section 112, requires as a condition precedent to approval by the Federal Highway Administrator of the contract for this work that each bidder file a sworn statement executed by, or on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the submitted bid. A form to make the noncollusion affidavit statement required by Section 112 as a certification under penalty of perjury rather than as a sworn statement as permitted by 28, USC, Sec. 1746, is included in the proposal.

**PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES IN SUBCONTRACTING.**—Part 26, Title 49, Code of Federal Regulations applies to this Federal-aid project. Pertinent sections of said Code are incorporated in part or in its entirety within other sections of these special provisions.

Schedule B—Information for Determining Joint Venture Eligibility

(This form need not be filled in if all joint venture firms are DBE owned.)

1. Name of joint venture \_\_\_\_\_

2. Address of joint venture \_\_\_\_\_

3. Phone number of joint venture \_\_\_\_\_

4. Identify the firms which comprise the joint venture. (The DBE partner must complete Schedule A.) \_\_\_\_\_

a. Describe the role of the DBE firm in the joint venture.

\_\_\_\_\_

b. Describe very briefly the experience and business qualifications of each non-DBE joint venturer: \_\_\_\_\_

\_\_\_\_\_

5. Nature of the joint venture's business \_\_\_\_\_

\_\_\_\_\_

6. Provide a copy of the joint venture agreement.

7. What is the claimed percentage of DBE ownership? \_\_\_\_

\_\_\_\_\_

8. Ownership of joint venture: (This need not be filled in if described in the joint venture agreement, provided by question 6.).

- a. Profit and loss sharing.
- b. Capital contributions, including equipment.
- c. Other applicable ownership interests.

9. Control of and participation in this contract. Identify by name, race, sex, and "firm" those individuals (and their titles) who are responsible for day-to-day management and policy decision making, including, but not limited to, those with prime responsibility for:

a. Financial decisions \_\_\_\_\_  
\_\_\_\_\_

b. Management decisions, such as:

1. Estimating \_\_\_\_\_  
\_\_\_\_\_

2. Marketing and sales \_\_\_\_\_  
\_\_\_\_\_

3. Hiring and firing of management personnel \_\_\_\_\_  
\_\_\_\_\_

4. Purchasing of major items or supplies \_\_\_\_\_  
\_\_\_\_\_

c. Supervision of field operations \_\_\_\_\_  
\_\_\_\_\_

Note.—If, after filing this Schedule B and before the completion of the joint venture's work on the contract covered by this regulation, there is any significant change in the information submitted, the joint venture must inform the grantee, either directly or through the prime contractor if the joint venture is a subcontractor.

**Affidavit**

"The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operation of our joint venture and the intended participation by each joint venturer in the undertaking. Further, the undersigned covenant and agree to provide to grantee current, complete and accurate information regarding actual joint venture work and the payment therefor and any proposed changes in any of the joint venture arrangements and to permit the audit and examination of the books, records and files of the joint venture, or those of each joint venturer relevant to the joint venture, by authorized representatives of the grantee or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal or State laws concerning false statements."

Revised 3-95  
08-07-95

Name of Firm	Name of Firm
Signature	Signature
Name	Name
Title	Title
Date	Date

Date \_\_\_\_\_  
State of \_\_\_\_\_  
County of \_\_\_\_\_

On this \_\_\_ day of \_\_\_\_\_, 19 \_\_, before me appeared (Name) \_\_\_\_\_, to me personally known, who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (Name of firm) \_\_\_\_\_ to execute the affidavit and did so as his or her free act and deed.

Notary Public \_\_\_\_\_  
Commission expires \_\_\_\_\_

[Seal]  
Date \_\_\_\_\_  
State of \_\_\_\_\_  
County of \_\_\_\_\_

On this \_\_\_ day of \_\_\_\_\_, 19 \_\_, before me appeared (Name) \_\_\_\_\_ to me personally known, who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (Name of firm) \_\_\_\_\_ to execute the affidavit and did so as his or her free act and deed.

Notary Public \_\_\_\_\_  
Commission expires \_\_\_\_\_

[Seal]

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

(Exclusive of Appalachian Contracts)

	Page
I. General .....	3
II. Nondiscrimination .....	3
III. Nonsegregated Facilities .....	5
IV. Payment of Predetermined Minimum Wage .....	6
V. Statements and Payrolls .....	8
VI. Record of Materials, Supplies, and Labor .....	9
VII. Subletting or Assigning the Contract .....	9
VIII. Safety: Accident Prevention .....	10
IX. False Statements Concerning Highway Project .....	10
X. Implementation of Clean Air Act and Federal Water Pollution Control Act.....	10
XI. Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion .....	11
XII. Certification Regarding Use of Contract Funds for Lobbying .....	12

**ATTACHMENTS**

A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. 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.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

- Section I, paragraph 2;
- Section IV, paragraphs 1, 2, 3, 4, and 7;
- Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 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 DOL, or the contractor's employees or their representatives.

**FR-3**

6. **Selection of Labor:** During the performance of this contract,

the contractor shall not:

- a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
- b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

**II. NONDISCRIMINATION**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

**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, and 41 CFR 60) 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 Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American 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 State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his 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, preapprenticeship, and/or on-the-job training."*

**2. EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively

administering and promoting an active contractor program of EEO 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 minority group employees.

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 minority groups 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 minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group 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, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to

refer minority group applicants for employment. Information and procedures with regard to referring minority group 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 ensure 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 his 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 his avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

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. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

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 minority group and women employees 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 his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. 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 best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best 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 SHA 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 minority and women 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 minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) 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 SHA.

8. **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.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 26, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. **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 completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number 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;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA 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. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

### III NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

#### **IV. PAYMENT OF PREDETERMINED MINIMUM WAGE**

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

##### **1. General:**

a. All mechanics and laborers 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 (29 CFR 3)] issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c) the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) 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. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, 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 paragraphs 4 and 5 of this Section IV.

b. 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.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

##### **2. Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification 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 DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour 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.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional 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. Said 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.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

##### **3. Payment of Fringe Benefits:**

a. 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 or subcontractors, as appropriate, shall either pay the benefit

as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a 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.

#### **4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

##### **a. Apprentices:**

(1) 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 DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/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 Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees 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 employee 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 listed in 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 or subcontractor 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-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) 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 journeyman-level 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 for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

##### **b. Trainees:**

(1) 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 DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. 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.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level 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-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor 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. Helpers:**

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

## 5. 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.

## 6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor 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, as 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 SHA contracting officer 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.

## 7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

## 8. Violation:

**Liability for Unpaid Wages; Liquidated Damages:** In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her 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, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

## 9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL 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 8 above.

## V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

### 1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

### 2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof 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. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found 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 and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such 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 the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

e. 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 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, 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 SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions 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.

## VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

## VII. SUBLETTING OR ASSIGNING THE CONTRACT

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 State. 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).

a. "Its own organization" shall be construed to include only workers employed and paid directly 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, assignee, or agent of the prime contractor.

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 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 VII 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 SHA 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 SHA 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 SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

### VIII. SAFETY: ACCIDENT PREVENTION

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 SHA 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. 333).

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. 333).

### IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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 re-

garding the seriousness of these and similar acts, the following notice 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:

### NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

*"Whoever being an officer, agent, or employee of the United States, or 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 not more than \$10,000 or imprisoned not more than 5 years or both."*

### X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub. L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub. L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized

for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

## **XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

### **1. Instructions for Certification - Primary Covered Transactions:**

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary 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 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 primary 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 department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary 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," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary 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 primary 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 Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. 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.

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.

\* \* \* \* \*

### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-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;

c. 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 1b of this certification; and

Form 1273 — Revised 3-95  
08-07-95

**FR-11**

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary 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 Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

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," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

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.

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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not

required to, check the Nonprocurement List.

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 Covered Transactions**

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 participation in this transaction 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.

\* \* \* \* \*

## **XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

(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 his or her bid or proposal that he or she 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.

**FEDERAL-AID FEMALE AND MINORITY GOALS**

In accordance with Section II, "Nondiscrimination," of "Required Contract Provisions Federal-aid Construction Contracts" the following are the goals for female utilization:

Goal for Women  
(applies nationwide).....(percent) ..... 6.9

The following are goals for minority utilization:

**CALIFORNIA ECONOMIC AREA**

	Goal (Percent)
174 Redding, CA:	
Non-SMSA Counties .....	6.8
CA Lassen; CA Modoc;	
CA Plumas; CA Shasta;	
CA Siskiyou; CA Tehama.	
175 Eureka, CA:	
Non-SMSA Counties .....	6.6
CA Del Norte; CA Humboldt;	
CA Trinity.	
176 San Francisco-Oakland-San Jose, CA:	
SMSA Counties:	
7120 Salinas-Seaside-	
Monterey, CA.....	28.9
CA Monterey.	
7360 San Francisco-Oakland, CA.....	25.6
CA Alameda; CA Contra Costa;	
CA Marin; CA San Francisco;	
CA San Mateo.	
7400 San Jose, CA.....	19.6
CA Santa Clara.	
7485 Santa Cruz, CA.....	14.9
CA Santa Cruz.	
7500 Santa Rosa, CA.....	9.1
CA Sonoma.	
8720 Vallejo-Fairfield- Napa, CA.....	17.1
CA Napa; CA Solano	
Non-SMSA Counties .....	23.2
CA Lake; CA Mendocino;	
CA San Benito.	

177 Sacramento, CA:

SMSA Counties:	
6920 Sacramento, CA.....	16.1
CA Placer; CA Sacramento;	
CA Yolo.	
Non-SMSA Counties.....	14.3
CA Butte; CA Colusa;	
CA El Dorado; CA Glenn;	
CA Nevada; CA Sierra;	
CA Sutter; CA Yuba.	

178 Stockton-Modesto, CA:

SMSA Counties:	
5170 Modesto, CA .....	12.3
CA Stanislaus.	
8120 Stockton, CA .....	24.3
CA San Joaquin.	
Non-SMSA Counties.....	19.8
CA Alpine; CA Amador;	
CA Calaveras; CA Mariposa;	
CA Merced; CA Tuolumne.	

179 Fresno-Bakersfield, CA:

SMSA Counties:	
0680 Bakersfield, CA .....	19.1
CA Kern.	
2840 Fresno, CA.....	26.1
CA Fresno.	
Non-SMSA Counties.....	23.6
CA Kings; CA Madera;	
CA Tulare.	

180 Los Angeles, CA:

SMSA Counties:	
0360 Anaheim-Santa Ana-Garden	
Grove, CA.....	11.9
CA Orange.	
4480 Los Angeles-Long	
Beach, CA .....	28.3
CA Los Angeles.	
6000 Oxnard-Simi Valley-	
Ventura, CA.....	21.5
CA Ventura.	

Form 1273 — Revised 3-95  
08-07-95

6780 Riverside-San Bernardino- Ontario, CA.....	19.0
CA Riverside; CA San Bernardino.	
7480 Santa Barbara-Santa Maria- Lompoc, CA .....	19.7
CA Santa Barbara.	
Non-SMSA Counties .....	24.6
CA Inyo; CA Mono; CA San Luis Obispo.	
181 San Diego, CA:	
SMSA Counties	
7320 San Diego, CA. ....	16.9
CA San Diego.	
Non-SMSA Counties .....	18.2
CA Imperial.	

In addition to the reporting requirements set forth elsewhere in this contract the Contractor and subcontractors holding subcontracts, not including material suppliers, of \$10,000 or more, shall submit for every month of July during which work is performed, employment data as contained under Form FHWA PR-1391 (Appendix C to 23 CFR, Part 230), and in accordance with the instructions included thereon.

Form 1273 — Revised 3-95  
08-07-95

*(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)*

## **EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION**

The bidder \_\_\_\_\_, proposed subcontractor \_\_\_\_\_, hereby certifies that he has \_\_\_\_\_, has not \_\_\_\_\_, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

**Note:** The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

*This page intentionally left blank*

## **Noncollusion Affidavit**

(Title 23 United States Code Section 112 and  
Public Contract Code Section 7106)

To the CITY / COUNTY of   RIDGECREST    
*DEPARTMENT OF PUBLIC WORKS*

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Noncollusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Noncollusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

*This page intentionally left blank*

## DEBARMENT AND SUSPENSION CERTIFICATION

### TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years;
- Does not have a proposed debarment pending; and
- Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

FR-17

*This page intentionally left blank*

## NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) 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.
- (2) 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 of Lobbying Activities," in accordance with its instructions.

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 Section 1352, Title 31, U.S. Code. 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.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

*This page intentionally left blank*

**DISCLOSURE OF LOBBYING ACTIVITIES**

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

**1. Type of Federal Action:**

- a. contract
- b. grant
- c. cooperative agreement
- d. loan
- e. loan guarantee
- f. loan insurance

**2. Status of Federal Action:**

- a. bid/offer/application
- b. initial award
- c. post-award

**3. Report Type:**

- a. initial
- b. material change

**For Material Change Only:**

year \_\_\_\_\_ quarter \_\_\_\_\_  
date of last report \_\_\_\_\_

**4. Name and Address of Reporting Entity**

Prime

Subawardee

Tier \_\_\_\_\_, if known

Congressional District, if known

**6. Federal Department/Agency:**

**5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:**

Congressional District, if known

**7. Federal Program Name/Description:**

CFDA Number, if applicable \_\_\_\_\_

**8. Federal Action Number, if known:**

**9. Award Amount, if known:**

**10. a. Name and Address of Lobby Entity**  
(If individual, last name, first name, MI)

**b. Individuals Performing Services** (including address if different from No. 10a)  
(last name, first name, MI)

(attach Continuation Sheet(s) if necessary)

**11. Amount of Payment (check all that apply)**

\$ \_\_\_\_\_  actual  planned

**13. Type of Payment (check all that apply)**

- a. retainer
- b. one-time fee
- c. commission
- d. contingent fee
- e. deferred
- f. other, specify \_\_\_\_\_

**12. Form of Payment (check all that apply):**

- a. cash
- b. in-kind; specify: nature \_\_\_\_\_  
value \_\_\_\_\_

**14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:**

(attach Continuation Sheet(s) if necessary)

**15. Continuation Sheet(s) attached:** Yes  No

16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ Date: \_\_\_\_\_

**Federal Use Only:**

FR-19

Authorized for Local Reproduction  
Standard Form - LLL

Standard Form LLL Rev. 09-12-97

## **INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES**

This disclosure form shall be completed by the reporting entity, whether subawardee or prime federal recipient, at the initiation or receipt of covered federal action or a material change to previous filing pursuant to title 31 U.S.C. Section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered federal action.
2. Identify the status of the covered federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, State and zip code of the prime federal recipient. Include Congressional District, if known.
6. Enter the name of the federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the federal program name or description for the covered federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate federal identifying number available for the federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant. or loan award number, the application/proposal control number assigned by the federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered federal action where there has been an award or loan commitment by the Federal agency, enter the federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influenced the covered federal action.  
(b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).

11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with federal officials. Identify the federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

SF-LLL-Instructions Rev. 06-04-90«ENDIF»

*This page intentionally left blank*

## **SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS**

### **2-1.01 GENERAL**

The bidder's attention is directed to the provisions in Section 2, "Proposal Requirements and Conditions," of the Standard Specifications and these special provisions for the requirements and conditions which the bidder must observe in the preparation of the proposal form and the submission of the bid.

In addition to the subcontractors required to be listed in conformance with Section 2-1.054, "Required Listing of Proposed Subcontractors," of the Standard Specifications, each proposal shall have listed therein the portion of work that will be done by each subcontractor listed. A sheet for listing the subcontractors is included in the Proposal.

The form of Bidder's Bond mentioned in the last paragraph in Section 2-1.07, "Proposal Guaranty," of the Standard Specifications will be found following the signature page of the Proposal.

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Proposal. Signing the Proposal shall also constitute signature of the Noncollusion Affidavit.

The contractor, sub recipient 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 recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

**2-1.015--FEDERAL LOBBYING RESTRICTIONS.**--Section 1352, Title 31, United States Code prohibits Federal funds from being expended by the recipient or any lower tier subrecipient of a Federal-aid contract to pay for any person for influencing or attempting to influence a federal agency or Congress in connection with the awarding of any federal-aid contract, the making of any federal grant or loan, or the entering into of any cooperative agreement.

If any funds other than federal funds have been paid for the same purposes in connection with this federal-aid contract, the recipient shall submit an executed certification and, if required, submit a completed disclosure form as part of the bid documents.

A certification for federal-aid contracts regarding payment of funds to lobby Congress or a federal agency is included in the Proposal. Standard Form - LLL, "Disclosure of Lobbying Activities," with instructions for completion of the Standard Form is also included in the Proposal. Signing the Proposal shall constitute signature of the Certification.

The above referenced certification and disclosure of lobbying activities shall be included in each subcontract and any lower-tier contracts exceeding \$100,000. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the Engineer.

The Contractor, subcontractors and any lower-tier contractors shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by the Contractor, subcontractors and any lower-tier contractors. An event that materially affects the accuracy of the information reported includes:

- (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered federal action; or
- (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered federal action; or
- (3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal Action.

**2-1.02 DISADVANTAGED BUSINESS ENTERPRISE (DBE).**-- This contract is subject to Part 26, Title 49, Code of Federal Regulations entitled "Participation By Minority Business Enterprise In Department of Transportation Programs." The Regulations in their entirety are incorporated herein by this reference.

Bidders shall be fully informed respecting the requirements of the Regulations and the Department's Disadvantaged business (DBE) program developed pursuant to the Regulations; particular attention is directed to the following matters:

- A. A DBE must be a small business concern as defined pursuant to Section 3 of U.S. Small Business Act and relevant regulations promulgated pursuant thereto;
- B. A DBE may participate as a prime contractor, subcontractor, joint venture partner with a prime or subcontractor, vendor of material or supplies, or as a trucking company;
- C. A DBE bidder, not bidding as a joint venture with a non-DBE, will be required to document one or a combination of the following:
  - 1. The bidder will meet the goal by performing work with its own forces.
  - 2. The bidder will meet the goal through work performed by DBE subcontractors, suppliers or trucking companies.
  - 3. The bidder, prior to bidding, made adequate good faith efforts to meet the goal.
- D. A DBE joint venture partner must be responsible for specific contract items of work, or portions thereof. Responsibility means actually performing, managing and supervising the work with its own forces. The DBE joint venture partner must share in the capital contribution, control, management, risks and profits of the joint venture. The DBE joint venturer must submit the joint venture agreement with the proposal or the DBE Information form required in the Section entitled "Submission of DBE Information" of these special provisions;
- E. A DBE must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work;
- F. DBEs must be certified by either the California Department of Transportation, or by a participating agency which certifies in conformance with Title 49, Code of Federal Regulations, Part 26, as of the date of bid opening. It is the Contractor's responsibility to verify that DBEs are certified. Listings of certified DBEs are available from the following sources:
  - 1. The Department's DBE Directory, which is published quarterly. This Directory may be obtained from the Department of Transportation, Materiel Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520;
  - 2. The Department's Electronic Information Bulletin Board Service, which is accessible by modem and is updated weekly. The Bulletin Board may be accessed by first contacting the Department's Business Enterprise Program at Telephone: (916) 227-8937 and obtaining a user identification and password;
  - 3. The Department's web site at [www.dot.ca.gov/hq/bep/index.htm](http://www.dot.ca.gov/hq/bep/index.htm);
- G. Credit for materials or supplies purchased from DBEs will be as follows:
  - 1. If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies will count toward the DBE goal. A DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

2. If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies will count toward the DBE goal. A DBE regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a DBE regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as provided in this paragraph G.2. if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not DBE regular dealers within the meaning of this paragraph G.2.
3. Credit for materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer will be limited to the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, provided the fees are reasonable and not excessive as compared with fees charged for similar services.

H. Credit for DBE trucking companies will be as follows:

1. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting the DBE goal;
  2. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract;
  3. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs;
  4. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract;
  5. The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE;
  6. For the purposes of this paragraph H, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.
- I. Noncompliance by the Contractor with the requirements of the regulations constitutes a breach of this contract and may result in termination of the contract or other appropriate remedy for a breach of this contract;
- J. Bidders are encouraged to use services offered by financial institutions owned and controlled by DBEs.

Bidders shall be fully informed respecting the requirements of the Regulations and are urged to obtain DBE participation in this project, although there is no specific goal for DBE participation.

Caltrans has engaged the services of a contractor to provide supportive services to contractors and subcontractors to assist in obtaining DBE participation on federally funded construction projects. Bidders and potential subcontractors should check the Caltrans website at [www.dot.ca.gov/hq/bep](http://www.dot.ca.gov/hq/bep) to verify the current availability of this service.

### **2-1.02A DBE GOAL FOR THIS CONTRACT**

The City/County has established the following goal for Disadvantaged Business Enterprise (DBE) participation for this contract:

Disadvantaged Business Enterprise (DBE): 11 percent

Caltrans has engaged the services of a contractor to provide supportive services to contractors and subcontractors to assist in obtaining DBE participation on federally funded construction projects. Bidders and potential subcontractors should check the Caltrans website at [www.dot.ca.gov/hq/bep](http://www.dot.ca.gov/hq/bep) to verify the current availability of this service.

### **2-1.02B SUBMISSION OF DBE INFORMATION**

The required DBE information shall be submitted on the "LOCAL AGENCY BIDDER - DBE INFORMATION" form included in the Proposal. If the DBE information is not submitted with the bid, the DBE Information form shall be removed from the documents prior to submitting the bid. It is the bidder's responsibility to make enough work available to DBEs and to select those portions of the work or material needs consistent with the available DBEs to meet the goal for DBE participation or to provide information to establish that, prior to bidding, the bidder made adequate good faith efforts to do so.

If DBE information is not submitted with the bid, the apparent successful bidder (low bidder), the second low bidder and the third low bidder shall submit DBE information to the City of Ridgecrest, 100 West California Ave. Ridgecrest CA 93555 (address) so the information is received by the City of Ridgecrest no later than 4:00 p.m. on the fourth day, not including Saturdays, Sundays and legal holidays, following bid opening. DBE information sent by U.S. Postal Service certified mail with return receipt and certificate of mailing and mailed on or before the third day, not including Saturdays, Sundays and legal holidays, following bid opening will be accepted even if it is received after the fourth day following bid opening. Failure to submit the required DBE information by the time specified will be grounds for finding the bid or proposal nonresponsive. Other bidders need not submit DBE information unless requested to do so by the City of

Ridgecrest.

The bidder's DBE information shall establish that good faith efforts to meet the DBE goal have been made. To establish good faith efforts, the bidder shall demonstrate that the goal will be met or that, prior to bidding, adequate good faith efforts to meet the goal were made.

Bidders are cautioned that even though their submittal indicates they will meet the stated DBE goal, their submittal should also include their adequate good faith efforts information along with their DBE goal information to protect their eligibility for award of the contract in the event the City, in its

review, finds that the goal has not been met.

The bidder's DBE information shall include the names, addresses and phone numbers of DBE firms that will participate, with a complete description of work or supplies to be provided by each, the dollar value of each DBE transaction, and a written confirmation from the DBE that it is participating in the contract. A copy of the DBE's quote will serve as written confirmation that the DBE is participating in the contract. When 100 percent of a contract item of work is not to be performed or furnished by a DBE, a description of the exact portion of that work to be performed or furnished by that DBE shall be included in the DBE information, including the planned location of that work. The work that a DBE prime contractor has committed to performing with its own forces as well as the work that it has committed to be performed by DBE subcontractors, suppliers and trucking companies will count toward the goal.

The information necessary to establish the bidder's adequate good faith efforts to meet the DBE goal should include:

- A. The names and dates of each publication in which a request for DBE participation for this project was placed by the bidder.
- B. The names and dates of written notices sent to certified DBEs soliciting bids for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested.
- C. The items of work which the bidder made available to DBE firms, including, where appropriate, any breaking down of the contract work items (including those items normally performed by the bidder with its own forces) into economically feasible units to facilitate DBE participation. It is the bidder's responsibility to demonstrate that sufficient work to meet the DBE goal was made available to DBE firms.
- D. The names, addresses and phone numbers of rejected DBE firms, the firms selected for that work, and the reasons for the bidder's choice.
- E. Efforts made to assist interested DBEs in obtaining bonding, lines of credit or insurance, and any technical assistance or information related to the plans, specifications and requirements for the work which was provided to DBEs.
- F. Efforts made to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services, excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate.
- G. The names of agencies contacted to provide assistance in contacting, recruiting and using DBE firms.
- H. Any additional data to support a demonstration of good faith efforts.

### **2-1. DVBE INFORMATION SUBMITTAL FOR INFORMAL-BID PROJECTS**

Submit "Certified DVBE Summary" and "DVBE Information - Good Faith Efforts" forms with your bid. The evaluation of the effort to meet the DVBE goal is based on the information provided. If the goal is not met, the Department's determination of good faith effort is based on the information provided with the bid, and the decision is final.

*This page intentionally left blank*

**SECTION 3. AWARD AND EXECUTION OF CONTRACT**

The bidder's attention is directed to the provisions in Section 3, "Award and Execution of Contract," of the Standard Specifications and these special provisions for the requirements and conditions concerning award and execution of contract.

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed and who has met the goal for DBE participation or has demonstrated, to the satisfaction of the City, adequate good faith efforts to do so. Meeting the goal for DBE participation or demonstrating to the satisfaction of the City, adequate good faith efforts to do so is a condition for being eligible for award of contract.

**3-1. CALTRANS BIDDER - DBE INFORMATION FORM**

Complete and sign the Caltrans Bidder - DBE Information form included in the contract documents even if no DBE participation is reported. Submit it with the executed contract. Provide written confirmation from each DBE that the DBE is participating in the contract. A copy of a DBE's quote serves as written confirmation. If a DBE is participating as a joint venture partner, the Department encourages you to submit a copy of the joint venture agreement.

**SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES**

Attention is directed to the provisions in Section 8-1.03, "Beginning of Work," in Section 8-1.06, "Time of Completion," and in Section 8-1.07, "Liquidated Damages," of the Standard Specifications and these special provisions.

The Contractor shall begin work within \_\_\_ calendar days after the contract has been approved by the City of Ridgecrest.

This work shall be diligently prosecuted to completion before the expiration of 210 CALENDAR DAYS beginning on the 15 calendar day after approval of the contract.

(INSERT AMOUNT OF LIQUIDATED DAMAGES)

The Contractor shall pay to the City of Ridgecrest the sum of \$ 5000.00 per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

FR-21

*This page intentionally left blank*

**5-1. SUBCONTRACTOR AND DBE RECORDS.** -- The Contractor shall maintain records of all subcontracts. The records shall show those subcontracts entered into with certified DBE subcontractors and records of materials purchased from certified DBE suppliers. Such records shall show the name and business address of each DBE subcontractor or vendor and the total dollar amount actually paid each DBE subcontractor or vendor.

Upon completion of the contract, a summary of these records shall be prepared on "Final Report – Utilization of Disadvantaged Business Enterprises - (DBE), First-Tier Subcontractors" (Exhibit 17-F/Form CEM-2402) and certified correct by the Contractor or his authorized representative, and shall be furnished to the Engineer.

**5-1. PERFORMANCE OF UDBEs**

UDBEs must perform work or supply materials as listed in the Caltrans Bidder - UDBE - Commitment form specified under Section 2, "Bidding," of these special provisions. Do not terminate a UDBE listed subcontractor for convenience and perform the work with your own forces or obtain materials from other sources without prior written authorization from the Department.

The Department grants authorization to use other forces or sources of materials for requests that show any of the following justifications:

1. Listed UDBE fails or refuses to execute a written contract based on plans and specifications for the project.
2. You stipulated that a bond is a condition of executing the subcontract and the listed UDBE fails to meet your bond requirements.
3. Work requires a contractor's license and listed UDBE does not have a valid license under Contractors License Law.
4. Listed UDBE fails or refuses to perform the work or furnish the listed materials.
5. Listed UDBE's work is unsatisfactory and not in compliance with the contract.
6. Listed UDBE delays or disrupts the progress of the work.
7. Listed UDBE becomes bankrupt or insolvent.

If a listed UDBE subcontractor is terminated, you must make good faith efforts to find another UDBE subcontractor to substitute for the original UDBE. The substitute UDBE must perform at least the same amount of work as the original UDBE under the contract to the extent needed to meet the UDBE goal.

The substitute UDBE must be certified as a DBE at the time of request for substitution.

The Department does not pay for work or material unless it is performed or supplied by the listed UDBE or an authorized substitute.

**FR-22**

*This page intentionally left blank*

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION  
**DISADVANTAGED BUSINESS ENTERPRISES (DBE) CERTIFICATION STATUS CHANGE**  
 CP-CEM-2403(F) (New, 10/99)

CONTRACT NUMBER	COUNTY	ROUTE	POST MILES/POST KILOMETERS	ADMINISTERING AGENCY	CONTRACT COMPLETION DATE
PRIME CONTRACTOR	BUSINESS ADDRESS				ESTIMATED CONTRACT AMOUNT

**Prime Contractor:** List all DBE's with change in certification status (certified/decertified) while in your employ, whether or not firms were originally listed for goal credit. Attach DBE certification/decertification letter in accordance with the Special Provisions.

CONTRACT ITEM NO.	SUBCONTRACTOR NAME AND BUSINESS ADDRESS	BUSINESS PHONE	CERTIFICATION NUMBER	AMOUNT PAID WHILE CERTIFIED	CERTIFICATION/DECERTIFICATION DATE	Letter attached <input type="checkbox"/>
	Up to Two Lines of Text					<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

Comments: Up to Three Lines of Text

CONTRACTOR REPRESENTATIVE SIGNATURE		I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT	
TITLE	BUSINESS PHONE NUMBER	DATE	
RESIDENT ENGINEER SIGNATURE		TO THE BEST OF MY KNOWLEDGE THE ABOVE INFORMATION IS COMPLETE AND CORRECT	
	BUSINESS PHONE NUMBER	DATE	
Distribution:	Original – DLAE	Copy to:	(1) Business Enterprise Program (2) Prime Contractor (3) Local Agency (4) Resident Engineer

Form CP-CEM 2403(F) (New 10/99)

**DISADVANTAGED BUSINESS ENTERPRISES (DBE) CHANGE IN CERTIFICATION STATUS REPORT**

The top of the form requires specific information regarding the construction project: Contract Number, County, Route, Post Miles/ Post Kilometers, the Administering Agency, the Contract Completion Date and the Estimated Contract Amount. It requires the Prime Contractor name and Business Address. The focus of the form is to substantiate and verify the actual DBE dollar amount paid to contractors on Federally funded projects that had a change in Certification status during the course of the completion of the contract. The two situations that are being addressed by CP-CEM 2403(F) are if a firm certified as a DBE and doing work on the contract during the course of the project becomes Decertified, and if a non-DBE firm doing work on the contract during the course of the project becomes Certified as a DBE.

The form has a column to enter the Contract Item No (or Item No's) as well as a column for the Subcontractor Name, Business Address, Business Phone, and contractor's Certification Number.

The column entitled Amount Paid While Certified will be used to enter the actual dollar value of the work performed by those contractors who meet the conditions as outlined above during the time period they are Certified as a DBE. This column on the CP-CEM-2403 (F) should only reflect the dollar value of work performed while the firm was Certified as a DBE.

The column called Certification/Decertification Date (Letter attached) will reflect either the date of the Decertification Letter sent out by the Civil Rights Program or the date of the Certification Certificate mailed out by the Civil Rights Program. There is a box to check that support documentation is attached to the CP-CEM-2403(F) form.

There is a Comments section for any additional information that may need to be provided regarding any of the above transactions.

The CEM-2403 (F) has an area at the bottom where the Contractor and the Resident Engineer sign and date that the information provided is complete and correct.

**5-1. PERFORMANCE OF DBE SUBCONTRACTORS AND SUPPLIERS**

The DBEs listed by the Contractor in response to the requirements in the section of these special provisions entitled "Submission of DBE Information, Award, And Execution Of Contract," which are determined by the Department to be certified DBEs, shall perform the work and supply the materials for which they are listed unless the Contractor has received prior written authorization to perform the work with other forces or to obtain the materials from other sources.

Authorization to utilize other forces or sources of materials may be requested for the following reasons:

- (1) The listed DBE, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract, when such written contract, based upon the general terms, conditions, plans and specifications for the project, or on the terms of such subcontractor's or supplier's written bid, is presented by the Contractor.
- (2) The listed DBE becomes bankrupt or insolvent.
- (3) The listed DBE fails or refuses to perform his subcontract or furnish the listed materials.
- (4) The Contractor stipulated that a bond was a condition of executing a subcontract and the listed DBE subcontractor fails or refuses to meet the bond requirements of the Contractor.
- (5) The work performed by the listed subcontractor is substantially unsatisfactory and is not in substantial accordance with the plans and specifications, or the subcontractor is substantially delaying or disrupting the progress of the work.
- (6) It would be in the best interest of the State.

The Contractor shall not be entitled to any payment for such work or material unless it is performed or supplied by the listed DBE or by other forces (including those of the Contractor) pursuant to prior written authorization of the Engineer.

*This page intentionally left blank*

## LOCAL AGENCY BIDDER-DBE INFORMATION

This information may be submitted with your bid proposal. If it is not, and you are the apparent low bidder or the second or third low bidder, it must be submitted and received by the administering agency no later than the time specified in the special provisions.

CO./RTE./P.M.: \_\_\_\_\_ BIDDER'S NAME: \_\_\_\_\_  
 \_\_\_\_\_  
 CONTRACT NO.: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 \_\_\_\_\_  
 BID AMOUNT: \_\_\_\_\_  
 \$ \_\_\_\_\_  
 BID OPENING DATE: \_\_\_\_\_ DBE GOAL FROM CONTRACT \_\_\_\_\_%

CONTRACT ITEM NO.	ITEM OF WORK AND DESCRIPTION OF WORK OR SERVICES TO BE SUBCONTRACTED OR MATERIALS TO BE PROVIDED	NAME OF DBE ** (Name of DBEs, Certification Number, and Telephone Number)	DOLLAR AMOUNT *** DBE	PERCENT *** DBE
Total Claimed Participation			\$ _____ _____%	\$ _____ _____%

- \* If 100% of item is not to be performed or furnished by DBE, describe exact portion, including planned location of work to be performed, of item to be performed or furnished by DBE
- \*\* DBEs must be certified by Caltrans on the date bids are opened. Subcontractors and suppliers certified state-funded only cannot be used to meet goals on federally funded contracts.
- \*\*\* Credit for a DBE supplier, who is not a manufacturer is limited to 60% of the amount paid to the supplier. (See Section "Disadvantaged Business" (DBE) of the special provisions)

**IMPORTANT: Names of DBE subcontractors and their respective item(s) of work listed above should be consistent with the name and items of work in the "List of Subcontractors" submitted with your bid pursuant to the Subcontractors Listing Law.**

\_\_\_\_\_  
 Signature of Bidder      Date      (Area Code) tel. No.

\_\_\_\_\_  
 Person to Contact      (Please type or print)

Distribution for NHS Projects: (1) Original-Caltrans DLAE for NHS Projects, (2) Copy-Local Agency project file  
 Distribution for non-NHS Projects: (1) Original Local Agency project file

*This page intentionally left blank*

**5-1. \_\_ BUY AMERICA REQUIREMENTS.** -- Attention is directed to the “Buy America” requirements of the Surface Transportation Assistance Act of 1982 (Section 165) and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) Sections 1041(a) and 1048(a), and the regulations adopted pursuant thereto. In accordance with said law and regulations, all manufacturing processes for steel and iron materials furnished for incorporation into the work on this project shall occur in the United States; with the exception that pig iron and processed, pelletized and reduced iron ore manufactured outside of the United States may be used in the domestic manufacturing process for such steel and iron materials. The application of coatings, such as epoxy coating, galvanizing, painting, and any other coating that protects or enhances the value of such steel or iron materials shall be considered a manufacturing process subject to the “Buy America” requirements.

A Certificate of Compliance, conforming to the provisions in Section 6-1.07, “Certificates of Compliance,” of the Standard Specifications, shall be furnished for steel and iron materials. The certificates, in addition to certifying that the materials comply with the specifications, shall also specifically certify that all manufacturing processes for the materials occurred in the United States, except for the exceptions allowed herein.

The requirements imposed by said law and regulations do not prevent a minimal use of foreign steel and iron materials if the total combined cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract cost or \$2,500, whichever is greater. The Contractor shall furnish the Engineer acceptable documentation of the quantity and value of any foreign steel and iron prior to incorporating such materials into the work.

*This page intentionally left blank*

### 5-1. SUBCONTRACTING

Attention is directed to the provisions in Section 8-1.01, "Subcontracting," and Section 2, "Proposal Requirements and Conditions," and Section 3, "Award and Execution of Contract," of the Standard Specifications and these special provisions.

Pursuant to the provisions in Section 1777.1 of the Labor Code, the Labor Commissioner publishes and distributes a list of contractors ineligible to perform work as a subcontractor on a public works project. This list of debarred contractors is available from the Department of Industrial Relations web site at [http://www.dir.ca.gov/dir/Labor\\_Law/DLSE/Debar.html](http://www.dir.ca.gov/dir/Labor_Law/DLSE/Debar.html).

The provisions in the third paragraph of Section 8-1.01, "Subcontracting," of the Standard Specifications, that the Contractor shall perform with the Contractor's own organization contract work amounting to not less than 50 percent of the original contract price, **is not** (is or is not) changed by the Federal Aid requirement specified under "Required Contract Provisions Federal-Aid Construction Contracts" in Section 14 of these special provisions that the Contractor perform not less than 30 percent of the original contract work with the Contractor's own organization.

Each subcontract and any lower tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts" in Section 14 of these special provisions.

This requirement shall be enforced as follows:

- A. Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

In conformance with the Federal DBE regulations Sections 26.53(f)(1) and 26.53(f)(2) Part 26, Title 49 CFR:

- A. The Contractor shall not terminate for convenience a DBE subcontractor listed in response to Section 2-1.02B, "Submission of DBE Information," and then perform that work with its own forces, or those of an affiliate without the written consent of the Department, and
  - B. If a DBE subcontractor is terminated or fails to complete its work for any reason, the Contractor will be required to make good faith efforts to substitute another DBE subcontractor for the original DBE subcontractor, to the extent needed to meet the contract goal.
- The requirement in Section 2-1.02, "Disadvantaged Business Enterprise (DBE)," of these special provisions that DBEs must be certified on the date bids are opened does not apply to DBE substitutions after award of the contract.

### 5-1. PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS

Attention is directed to the provisions in Sections 10262 and 10262.5 of the Public Contract Code and Section 7108.5 of the Business and Professions Code concerning prompt payment to subcontractors.

### 5-1. PROMPT PAYMENT OF WITHHELD FUNDS TO SUBCONTRACTORS

The Contractor shall return all moneys withheld in retention from the subcontractor within 30 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 Section 7-1.17, "Acceptance of Contract," of the Standard Specifications. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or noncompliance by a subcontractor.

*This page intentionally left blank*

## **Add Wage Rate Determination**