

## City of Merced Statement of Services Contract

Dept. Head Sig.:  Due Date:  Return to:

name of City Contact	Phone Ext
Description of Services to Be Provided:	Official Use Only
Check Box If Applicable to Project:	
License (1)* Type Busin	ness License (2)*  Bonds (6)*
Insurance (14)*  *Numbers correspond to paragraph numbers on the Terms and Condition	kers' Compensation (15)*  Prevailing Wages (16)*  ons attached hereto.
	sal/Quote
1	
2	
3	
Total Amount \$	
by reference, any additional terms and conditions found on the Purch attached hereto or in the Merced Municipal Code, and makes the C price. This agreement is not binding on the City until executed by tl Consultant. Any terms and conditions proposed by Consultant shall r designated representative of the City.	e bound to the Terms and Conditions attached hereto and incorporated hase Order, and any other terms and conditions imposed by the City and ity an offer for the above-mentioned services at the above-mentioned he City Manager, or his/her designee, and a Purchase Order is issued to not be binding upon the City unless expressly agreed to in writing by the they have the legal capacity and authority to do so on behalf of their
respective legal entities.	
Print Name	
	Name and Address of Business Entity
Signature	Date:
Signature	Phone No.:
Position and Title	License No.:
1 ostaon and nac	DIR Registration No.:
Accepted by City of Merced	Official Use Only
Date	e PO#
City Manager or Designee	

#### TERMS AND CONDITIONS FOR SERVICES AND PUBLIC WORKS CONTRACTS

THESE TERMS AND CONDITIONS, ("Terms and Conditions") are made and entered into on the date shown on the attached Statement of Services, by and between the City of Merced, a California Charter Municipal Corporation, ("City") and the Vendor, Consultant, or Person, ("Consultant") shown on the Statement of Services. These Terms and Conditions, Statement of Services, and Purchase Order shall herein be collectively referred to as the "Agreement." Any words that Consultant adds to the Agreement or any form that Consultant uses in the course of business will not change or supersede these Terms and Conditions. The City must agree, in writing, to any change in terms and conditions. The City's acceptance of any work or services is not an acceptance of Consultant's conflicting terms and conditions should such exist.

1. <u>CONSULTANT QUALIFICATIONS AND STANDARD OF</u>
WORK. Consultant warrants that it is fully qualified to perform the work, and holds all applicable licenses, permits, and other necessary qualifications.
Consultant shall perform and complete in a good and workmanlike manner all the work described in this Agreement to the plans and specifications provided to the Consultant by City, and shall do everything required by these Terms and Conditions and other contract documents attached hereto.

Consultant shall possess a valid <u>Class A</u> Special California Consultant's license at the time of bid submission for the duration of the Agreement. (Applies only if marked on the Statement of Services Form).

- 2. <u>CITY BUSINESS LICENSE (Applies only if marked on the Statement of Services Form)</u>. Consultant agrees that if its business is based within the City limits or it enters into the City to conduct business then a current City of Merced business license is required. Failure to comply with this requirement could result in criminal penalties.
- 3. <u>CONSULTANT'S SERVICES</u>. Consultant shall, at its own cost and expense and as authorized and directed by the City, provide the personnel, supervision, equipment, supplies, services, administration, transportation, and other needs to complete the work described in the Statement of Services and the City's Purchase Order, which is hereby incorporated and made a part of these Terms and Conditions, within the agreed upon time schedule and budget. The Consultant is

responsible for obtaining and administering the employment of personnel having the training, experience, licenses, and other qualifications necessary for the work assigned. All project-related costs shall be assumed and paid by the Consultant. These Terms and Conditions and Purchase Order provide the exclusive means of payment and reimbursement of costs to the Consultant by the City.

#### Such work shall include the following:

- a. The Consultant shall perform the services as described in the Statement of Services and Purchase Order in full compliance with these Terms and Conditions and adopted City policies and guidelines as provided to the Consultant, and in compliance with all other applicable laws and regulations.
- b. The Consultant shall perform all services and prepare all documents in professional form, exercising the special experience, skill, and education required for such service.
- c. The Consultant shall provide finished documents of presentation quality that evidence the highest standards of investigation, professional review, public participation, and presentation.
- 4. <u>SCHEDULE OF PERFORMANCE AND BUDGET</u>. The Consultant shall satisfactorily perform the services described in the Statement of Services and Purchase Order within the Time Schedule stated or agreed to between the Consultant and the City. The Consultant shall review the remaining work and remaining budget at least monthly (or at such other interval as directed by City staff) and shall confirm that completion may be expected within the budget approved or, in the alternative, give immediate notice when it shall first appear that the approved budget will not be sufficient, together with an explanation for any projected insufficiency.

The Consultant shall immediately inform the City of any problems, obstructions, or deviations of which the Consultant becomes aware affecting Consultant's ability to complete the project in a timely, efficient, and competent manner.

5. <u>RISK OF LOSS PRIOR TO FINAL ACCEPTANCE</u>. Risk of loss from total or partial destruction of the work, prior to final acceptance, shall be borne by Consultant regardless of the cause. Consultant 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 Consultant from completion of work.

#### 6. <u>BONDS</u> – (Applies only if marked on the Statement of Services Form).

- a. Consultant shall, within fifteen (15) days of contract award and before performance of the work, file a Performance Bond, with and approved by the City, in the amount of 100 percent (100%) of the contract price. The Performance Bond shall remain in effect until recordation of the Notice of Completion, or if a Notice of Completion is not recorded by the City, for sixty (60) days after completion of the work.
- b. All Bonds shall be furnished by the Consultant at its own cost and expense. All bonds shall be executed by such sureties as are admitted to transact surety insurance in the State of California. Should an objection as to the sufficiency of an admitted surety on a bond be made, California Code of Civil Procedure Section 995.660 shall apply.
- 7. <u>INDEPENDENT CONSULTANT</u>. It is expressly understood that Consultant is an independent contractor and that its employees shall not be employees of or have any contractual relationship with the City. Consultant shall be responsible for the payment of all taxes, workers' compensation insurance and unemployment insurance. Should Consultant desire any insurance protection, the Consultant is to acquire same at its expense.

In the event Consultant or any employee, agent, or subcontractor of Consultant providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System (PERS) to be eligible for enrollment in PERS as an employee of the City, Consultant shall indemnify, protect, defend, and hold harmless the City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

8. <u>COMPENSATION</u>. Payment by the City to the Consultant for actual services rendered shall be made upon presentation of an invoice detailing services performed.

- 9. <u>TERMINATION FOR CONVENIENCE OF CITY</u>. The City may terminate the Agreement any time by mailing via certified U.S. Mail a notice in writing to Consultant that the Agreement is terminated. Alternatively, City may send said notice by facsimile with confirming notice provided via U.S. Mail. Said Agreement shall be deemed terminated as of Consultant's receipt of said notice, and no further work shall be performed by Consultant. If the Agreement is so terminated, the Consultant shall be paid for that percentage of the phase of work actually completed, based on a pro rata portion of the compensation for said phase satisfactorily completed at the time the notice of termination is received.
- 10. <u>ASSIGNABILITY OF AGREEMENT</u>. The Agreement contemplates personal performance by the Consultant and is based upon a determination of its unique personal competence and experience and upon its specialized personal knowledge. Assignments of any or all rights, duties or obligations of the Consultant under the Agreement will be permitted only with the express written consent of the City.
- 11. <u>RECORDS</u>. It is understood and agreed that all plans, studies, specifications, data magnetically or otherwise recorded on computer or computer diskettes, records, files, reports, etc., in possession of the Consultant relating to the matters covered by the Agreement shall be the property of the City, and Consultant shall deliver the same to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials, including, but not limited to, those set forth hereinabove, prepared pursuant to the Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use.
- 12. <u>INDEMNITY</u>. Consultant shall indemnify, protect, defend (with legal counsel selected by the City), save and hold City, its officers, employees, and agents, harmless from any and all claims or causes of action for death or injury to persons, or damage to property resulting from intentional or negligent acts, errors, or omissions of Consultant or Consultant's officers, employees, volunteers, and agents during performance of this Agreement, or from any violation of any federal, state, or municipal law or ordinance, to the extent caused, in whole or in part, by the willful misconduct, negligent acts, or omissions of Consultant or its employees, subcontractors, or agents, or by the quality or character of Consultant's work, or resulting from the negligence of the City, its officers, employees, volunteers and agents, except for loss caused by the sole negligence or willful misconduct of the City or its officers, employees, volunteers or agents. It is understood that the duty of Consultant to indemnify and hold harmless includes the duty to defend as set

forth in Section 2778 of the California Civil Code. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall survive the termination of this Agreement and shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

#### 13. COMMUNICABLE DISEASE WAIVER AND RELEASE.

Consultant waives and releases the City from any and all claims, causes of action, allegations, or assertions that may arise relating to infection of any person by COVID-19 or other communicable disease that occurs, or is alleged to occur, during the course of the performance of the work covered in the agreement. Consultant also agrees to defend, indemnify, and hold City harmless from any and all claims, causes of action, allegations, or assertions made against City or City's employees arising from or relating to actual or alleged infection occurring during the performance of the work covered in the agreement, except where caused by the sole negligence or willful misconduct of the City.

- 14. <u>INSURANCE (Applies only if marked on the Statement of Services Form)</u>. During the term of the Agreement, Consultant shall maintain in full force and effect at its own cost and expense, the following insurance coverage:
  - a. General Liability.
    - (i) Consultant shall obtain and keep in full force and effect general liability coverage at least as broad as ISO commercial general liability coverage occurrence Form CG 0001.
    - (ii) Consultant shall maintain limits of no less than One Million Dollars (\$1,000,000) per occurrence for bodily injury, personal injury and property damage.
    - (iii) The City, its officers, employees, volunteers and agents are to be named as additional insureds under the policy, as respects liability arising out of work or operations performed by or on behalf of the Consultant.

- (iv) The policy shall stipulate that this insurance will operate as primary insurance for work performed by Consultant and its sub-contractors, and that any other insurance or self insurance maintained by City or other named insureds shall be excess and non-contributory.
- (v) Consultant shall maintain its commercial general liability coverage for three (3) years after completion of the work and shall add an additional insured endorsement form acceptable to the City naming the City of Merced, its officers, employees, agents and volunteers for each year thereafter for at least three (3) years after completion of the work. Copies of the annual renewal and additional insured endorsement form shall be sent to the City within thirty (30) days of the annual renewal.

#### b. Automobile Insurance.

- (i) Consultant shall obtain and keep in full force and effect an automobile policy of at least One Million Dollars (\$1,000,000) per accident for bodily injury and property damage.
- (ii) The City, its officers, employees, volunteers and agents are to be named as additional insureds under the policy, as respects automobiles owned, leased, hired or borrowed by the Consultant.
- (iii) The policy shall stipulate that this insurance will operate as primary insurance for work performed by Consultant and its sub-contractors, and that any other insurance or self insurance maintained by City or other named insureds shall be excess and non-contributory.
- c. Professional Liability Insurance. Consultant shall carry professional liability insurance appropriate to Consultant's profession in the minimum amount of One Million Dollars (\$1,000,000). Architects and engineers' coverage is to be endorsed to include contractual liability.
- d. Qualifications of Insurer. The insurance shall be provided by an acceptable insurance provider, as determined by City, which satisfies all of the following minimum requirements:

- (i) An insurance carrier admitted to do business in California and maintaining an agent for service of process within this State; and,
- (ii) An insurance carrier with a current A.M. Best Rating of A:VII or better (except for workers' compensation provided through the California State Compensation Fund).
- e. Certificate of Insurance. Consultant shall complete and file with the City prior to engaging in any operation or activity set forth in the Agreement, certificates of insurance evidencing coverage as set forth above and which shall provide that no cancellation or expiration by the insurance company will be made during the term of this Agreement, without thirty (30) days written notice to City prior to the effective date of such cancellation—including cancellation for nonpayment of premium. In addition to any other remedies City may have, City reserves the right to withhold payment if Consultant's insurance policies are not current.
- 15. WORKERS COMPENSATION INSURANCE (Applies Only If Marked On The Statement Of Services Form). Full workers' compensation insurance shall be provided with a limit of at least One Hundred Thousand Dollars (\$100,000) for any one person and as required by law, including Employer's Liability limits of \$1,000,000.00 per accident. The policy shall be endorsed to waive the insurer's subrogation rights against the City.

#### 16. <u>PREVAILING WAGES – (Applies only if marked on the Statement of Services Form)</u>.

- a. A determination of the general prevailing rates per diem wages and holiday and overtime work where the work is performed is available for review upon request at the City of Merced, located at 678 West 18<sup>th</sup> Street, Merced, California 95340. Consultant and subcontractors will not pay less then the prevailing rates of wages. Consultant will post one copy of the prevailing rates of wages at the job site.
- b. Consultant shall forfeit as penalty to City the sum of Fifty Dollars (\$50.00) for each calendar day or portion thereof, and for each worker paid less then the prevailing rates under the Agreement.

17. TRAVEL AND SUBSISTENCE PAYMENTS – (Applies only if Prevailing Wages is marked on the Statement of Services Form). Travel and subsistence payments shall be paid to each worker as defined in the applicable collective bargaining agreements filed with the Department of Industrial Relations for the particular craft, classification or type of work.

#### 18. HOURS OF WORK.

- a. Eight (8) hours of labor constitutes a legal day's work. Workers shall be paid at a rate of one and one-half times (1 ½) the basic rate of pay for work in excess of eight (8) hours during a calendar day or forty (40) hours during a calendar week for the foregoing hours.
- b. Consultant shall keep and make available an accurate record showing the name of each worker, and hours worked each day and each week by each worker.
- c. As a penalty to the City, Consultant shall forfeit Twenty Five Dollars (\$25.00) for each worker, including subcontractor's workers, for each calendar day during which the worker is required or permitted to work more than eight (8) hours in one (1) calendar day and forty (40) hours in any one (1) calendar week in violation of Labor Code Sections 1810 through 1815.
- 19. <u>NOTICES</u>. Notice may be given by personal delivery or by placing the notice in a properly addressed envelope and depositing that envelope in the United States mail with first-class postage paid.
- 20. <u>PROHIBITION AGAINST DISCRIMINATION</u>. In the performance of the Agreement the Consultant will not refuse or fail to hire or employ any qualified person, or bar or discharge from employment any person, or discriminate against any person with respect to the compensation, terms, conditions or privileges of employment, because of such person's race, color, creed, national origin, ancestry, sex or age.

#### 21. PERMITS AND LICENSES.

a. Consultant shall apply for and procure permits and licenses necessary for the work.

- b. Consultant shall give notices necessary and incidental to the due and lawful prosecution of the work and shall comply duly with the terms and conditions of permits and licenses.
- c. Consultant shall pay charges and fees in connection with permits and licenses.
- 22. <u>VENUE</u>. The Agreement and all matters relating to it shall be governed by the laws of the State of California and any action brought relating to the Agreement shall be held exclusively in a state court in the County of Merced.
- 23. <u>WAIVER</u>. In the event that either City or Consultant shall at any time or times waive any breach of the Agreement by the other, such waiver shall not constitute a waiver of any other or succeeding breach of the Agreement, whether of the same or any other covenant, condition or obligation. Waiver shall not be deemed effective until and unless signed by the waiving party.
- 24. <u>CONFORMANCE TO APPLICABLE LAWS</u>. Consultant shall comply with its standard of care regarding all applicable Federal, State, and municipal laws, rules and ordinances. No discrimination shall be made by Consultant in the employment of persons to work under the Agreement because of race, color, national origin, ancestry, disability, sex or religion of such person.

Consultant hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act (8 U.S.C.A. 1101 *et seq.*), as amended; and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Consultant so employ such unauthorized aliens for the performance of work and/or services covered by the Agreement, and should any agency or instrumentality of the federal or state government, including the courts, impose sanctions against the City for such use of unauthorized aliens, Consultant hereby agrees to, and shall, reimburse City for the cost of all such sanctions imposed, together with any and all costs, including attorneys' fees, incurred by the City in connection therewith.

#### ADVICE ON PREVAILING WAGE

#### Be hereby notified:

Pursuant to Section 1781 of the Labor Code, Consultant/Contractor is advised that the work contemplated in this contract may be subject to the payment of prevailing wages and all other requirements of the Prevailing Wage Law. The prevailing wage of each job classification may be found by inquiry with the California Department of Industrial Relations.

Consultant/Contractor shall comply with all laws related to the performance of public work including, but not limited to, the employment of apprentices pursuant to Section 1777.5 of the Labor Code, work day/week hours and overtime rates pursuant to Sections 1813 and 1815 of the Labor Code and the obligation set forth in Sections 1774-1776 of the Labor Code in regards to payment of prevailing wages and to provide the City of Merced and Department of Industrial Relations certified payrolls when required.

A certified copy of all payroll records relative to this project shall be submitted to the City of Merced along with the related invoice. Receipt of certified payroll records is a prerequisite to receiving payment.

#### Therefore:

No Consultant/Contractor or sub-consultant/contractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5.

No Consultant/Contractor or sub-consultant/contractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5.

All Consultants/Contractors or sub-consultants/contractors must furnish electronic certified payroll records to the Labor Commissioner. This requirement applies to all public works projects, whether new or ongoing.

Consultant/Contractor is further advised that the work contemplated herein is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

#### Attachment A

#### PROJECT No. CP240054 G St Under Crossing Crash Cushion

#### **Scope of Service**

The work to be performed includes, but not limited to, contractor to remove (7) existing Adiem modules (crash cushions), replace (8) 1" dia. galvanized anchor pins, contractor to install (7) new Adiem modules (crash cushions), (8) 1" dia. galvanized anchor pins and (1) new type I object marker.

"G" Street at BNSF Railroad Crossing

\*\* See attached Overall Layout

This is a City of Merced Capital Improvement Project, which could include, but is not limited to: Remove and replace existing Adiem modules (crash cushions).

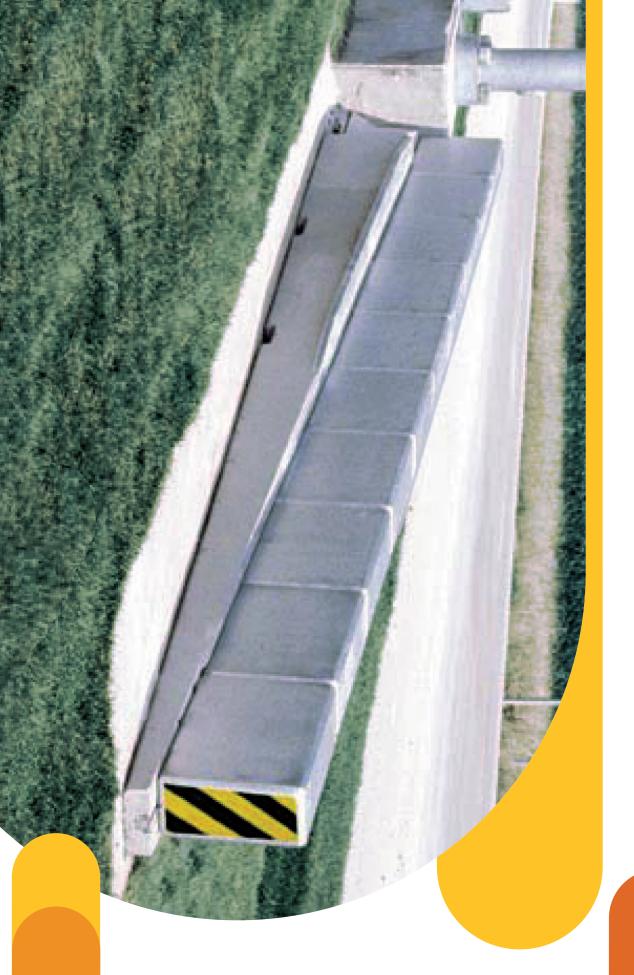
#### **Time of Completion**

We anticipate award of the statement of services agreement by May 7, 2024. The work described herein shall meet a proposed schedule of deliverables that will include delivery of intermediate work products and the final design documents in a timely manner, as identified in the timeline presented in your proposal.

Further information may be obtained from A Vang at (209) 385-6941.



# **ADIEM®**CRASH CUSHIONS





covers help provide protection from the cushion is tested to NCHRP Report 350 Test concrete modules. The ADIEM® crash consists of 10 lightweight, crushable absorbing, narrow crash cushion that Module (ADIEM®) is a redirective, energy weather Level 3. Enhanced coatings and optional The Advanced Dynamic Impact Extension

## **ASSEMBLY AND MAINTENANCE**

- Does not use torque-sensitive bolts.
- Does not use concrete foundation pad
- Can be used with temporary or permanent concrete barriers.
- Pinned anchorage is designed to help facilitate easier movement and relocation of the unit.
- Lightweight modules are uniform in design priority when attaching or replacing damaged and composition, and do not use sequence
- Damage to the product after an impact within typically confined to the modules which helps NCHRP Report 350 crash test standards is facilitate easier repair.\*

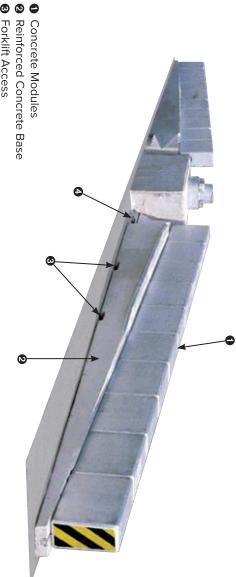
## **FEATURES**

- Does not use site-specific foundation soil/base material. such as concrete, asphalt, or compacted pad. Can be placed on existing surfaces
- Composed of three component groups:
- Reinforced concrete base
- Engineered lightweight concrete modules
- Anchor brackets
- Redirective capability (Beginning Length of Need at 15' (4.6 m) from nose).



## **SPECIFICATIONS**

- System Length: 30' (9.1 m) Base
- System Width: 32" (813 mm) at Widest
- · System Height: 28" (712 mm) at Nose, 49" (1,245 mm) at Fixed Object
- Base Weight: 11,500 lbs. (5,216 kg)



- S Forklift Access
- Anchor Brackets

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#### **CITY OF MERCED**DEPARTMENT OF ENGINEERING

CALIFORNIA

NOTICE INVITING BIDS
BID FORMS
SAMPLE CONTRACT DOCUMENTS
SPECIAL PROVISIONS

FOR

## PROJECT NUMBER CP240054 G ST UNDER CROSSING CRASH CUSHION

BID DUE DATE: May 2, 2024 at 5:00 PM

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#### **BID SCHEDULE**

#### BID SCHEDULE

ITEM NO.	ITEM	UNIT OF MEASURE	EST. QTY.	UNIT PRICE (IN FIGURES)	ITEM TOTAL (IN FIGURES)
	Permits, Bonds, Licenses &				
1	Insurance	LS	1	\$	\$
2	Public Convenience and Safety	LS	1	\$	\$
3	Water Pollution Control	LS	1	\$	\$
4	Portable Changeable Message Signs	EA	2	\$	\$
5	Street Sweeping	LS	1	\$	\$
6	Demolition/Remove Crash Cushion	EA	7	\$	\$
	Demolition/Remove 1" Galv. Anchors Pin	T		Φ.	
7	Alichors Fili	EA	8	\$	\$
8	Install Crash Cushions	EA	7	\$	\$
9	Install 1" Dia. Galv. Anchors Pin	EA	8	\$	\$
10	Install Type I Object Marker	EA	1	\$	\$
11	Restoration	LS	1	\$	\$

Total Bid for Items 1 thru 11 \$
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### EXHIBIT "B" - DRAWINGS AND TECHNICAL SPECIFICATIONS

#### **SCOPE OF WORK**

The work to be performed includes, but not limited to, CONTRACTOR TO REMOVE (7) EXISTING ADIEM CRASH CUSHIONS, REMOVE (8) 1" DIA. GALVANIZED ANCHOR PINS, CONTRACTOR TO INSTALL (7) ADIEM CRASH CUSHIONS, (8) 1" DIA. GALVANIZED ANCHOR PINS AND (1) TYPE I OBJECT MARKER.

#### **PERFORMANCE**

The Contractor shall furnish all labor, materials, tools, equipment, incidentals, and do all work described in the Plans and these Special Provisions.

#### **COORDINATION/COOPERATION**

The Contractor shall notify the Engineer at (209) 385-6846 at least three (3) working days in advance of the tentative starting date.

The Contractor shall be responsible for contacting and coordinating with all utility companies, including the City, with regards to the location of existing underground facilities in the construction area. The Contractor shall call Underground Service Alert at (800) 642-2444, at least 2 working days before commencement of underground work for location of underground facilities.

Utility facilities damaged, temporarily disconnected, or relocated as a result of construction shall be repaired/reconnected as directed by the governing utility at the Contractor's expense.

Full compensation for conforming to the requirements of this section shall be considered as included in the price paid for the various contract items of work involved and no additional compensation will be made.

#### **INSPECTION OF SITE**

The Contractor shall inspect the work site and note all existing conditions before submitting a bid for this project. A site tour is scheduled immediately following the pre-bid/LBE meeting if requested.

#### **DUST CONTROL**

It shall be the responsibility of the Contractor to minimize dust during earth moving operations. A water truck shall be made available if necessary for dust control.

Full compensation for conforming to the requirements of this section shall be considered as included in the price paid for the various contract items of work involved and no additional compensation will be made.

#### PERMITS, BONDS, LICENSES AND INSURANCE

The Contractor shall procure all permits, bonds, licenses and insurance, pay all charges and fees, and give all notices necessary and incidental to the prosecution of the work.

Payment for "Permits, Bonds, Licenses and Insurance," shall be at the contract lump sum price as set forth in the proposal, and shall include all fees associated with permits, bonds, licenses, inspections, and all other fees necessary for the completion of this item.

#### **PUBLIC CONVENIENCE AND SAFETY**

The Contractor shall be responsible for all the provisions of this item, including issuance of all notices necessary for prosecution of the work.

**Construction Area Signs** -- Construction area signs and traffic cones shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Temporary Traffic Control," of the State Specifications, and these Special Provisions. Specifically included in this item are all detour signage.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least two (2) working days, but not more than 14 calendar days, prior to commencing any excavation for construction area sign posts. The regional notification centers include, but not limited to the following:

Notification Center
Underground Service Alert (USA)

(Northern California)

Telephone
1-800-227-2600

All 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 that there were no utility facilities in the area of the proposed post holes.

Sign substrates for stationary mounted construction area signs may be fabricated from fiberglass reinforced plastic as specified under "Prequalified and Tested Signing and Delineation Materials" elsewhere in these Special Provisions.

Type IV reflective sheeting for sign panels for portable construction area signs shall conform to the requirements specified under "Prequalified and Testing Signing and Delineation Materials" elsewhere in these Special Provisions.

The term "construction area signs" shall also 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 and the following:

Object markers shall be stationary mounted on wood or metal posts in accordance with the details shown on the plans and the requirements in Section 82, "Markers and Delineators," of the Standard Specifications.

Marker panels for Type N, Type P and Type R object markers shall conform to the requirements for sign panels for stationary mounted signs.

Target plates for Type K and Type L object markers and posts, reflectors and hardware shall conform to the requirements in said Section 82, but need not be new.

When a street section is to be closed, it shall be solidly barricaded, and signs shall be posted at the closure points indicating "Street Closed."

Full cost of providing and removing construction area signs shall be borne exclusively by the Contractor and shall be considered as included in the contract lump sum price for Item 10-1.07, "Public Convenience & Safety."

**Maintaining Traffic** -- Attention is directed to Section 7-1.03, "Public Convenience," Section 7-1.04, "Public Safety," and Section 12, "Temporary Traffic Control," of the State Specifications. Nothing in these Special Provisions shall be construed as relieving the Contractor from its responsibility as provided in Section 7-1.04 of the State Specifications.

All traffic cones used for night lane closures shall have reflective cone sleeves as specified in the specifications. One (1) 12-foot wide traffic lane must be open at all times.

The second and third paragraphs of Section 12-3.10, "Traffic Cones," of the State Standard Specifications are amended to read:

The type of reflective cone sleeve used shall be at the option of the Contractor. Only one type of reflective cone sleeve shall be used on the project.

Lane closures shall conform to the provisions in the section of these special provisions entitled "Traffic Control System for Lane Closure."

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders, including any section closed to public traffic.

The Contractor shall notify local authorities of its intent to begin work at least five (5) days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make its own arrangements relative to keeping the working area clear of parked vehicles.

The Contractor shall provide access to all businesses and residences within the construction zone at all times throughout the project. When the work requires the closing of a business driveway or other entrance, the Contractor shall post signs directing the public to the most convenient access to the business.

The Contractor shall provide access to all private driveways when construction is not actively in progress. Access to driveways fronting the construction area shall not be hindered or blocked for time periods greater than 4 hours without notifying the property owner or tenant in writing 24 hours prior to blockage.

The Contractor shall provide safe public access around the work site in accordance with the American Disabilities Act requirements during the work.

Whenever vehicles or equipment are parked on the shoulder within six feet of a traffic lane, the shoulder area shall be closed with fluorescent 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 nine (9) cones or portable delineators shall be used for the taper. A C23 (Road Work Ahead) or C24 (Shoulder Work Ahead) sign shall be mounted on a telescoping flag tree with flags. The flag tree shall be placed where directed by the Engineer.

When the Contractor's operations create a condition hazardous to traffic or to the public, he shall furnish, erect and maintain, at his expense and without cost to the City, such fences, barricades, lights, signs and other devices as are necessary to prevent accidents or damage or injury to the public. The Contractor shall also furnish such flagmen, provided with the necessary equipment kept clean and in good condition by the Contractor at his expense, as may be necessary to give adequate warning to traffic or to the public that the roadway is under construction or of any dangerous conditions to be encountered. The flagmen shall perform their duties and their work of furnishing and placing such signs, lights, flags and other warning and safety devices as set forth in the current "Work Area Traffic Control Handbook" as published by the Building News, Inc., Los Angeles, California.

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

Full cost of conforming to this section shall be considered as included in the contract lump sum price for "Public Convenience and Safety."

**Traffic Control System for Lane Closure** -- A traffic control system shall be provided by the Contractor and shall be in accordance with the provisions of Section 12, "Temporary Traffic Control," of the State Specifications, the provisions under "Maintaining Traffic" elsewhere in these Special Provisions.

The provisions in this section shall not relieve the Contractor from its responsibility to provide such additional devices, or take such measures as may be necessary, to comply with the provisions in Section 7-1.04, "Public Safety," of the State Standard Specifications.

Prior to any lane closures, it shall be the responsibility of the Contractor to provide 72-hour notice to the City and obtain City approval of the lane closure. Failure to notify the City in a timely manner is cause for the City to prevent the lane closure.

Whenever a lane closure is made, the Contractor shall close the lane by placing fluorescent traffic cones, portable cones, portable delineators, or other devices approved by the Engineer, along a taper and along the edge of the closed lane adjacent to public traffic. One telescoping flag tree with flags shall be placed at the beginning and at the end of the taper.

If any component in the traffic control system is displaced or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair

said component to its original condition or replace said component, and shall restore the component to its original location. Full cost of providing flaggers shall be borne exclusively by the Contractor.

The Contractor shall submit a traffic control plan and approved by the City Engineer prior to commencing any work.

**Protection of the Work --** To minimize traffic congestion during the resurfacing operation, the work shall be done in stages. Residents with driveways within the closed section shall be notified at least 24 hours in advance of closure via door hangers and signs within the limits of the project.

Barricades and signs and their cost of replacement, the cost of flagmen necessary for the protection of the work and the public and costs of notification of affected residents will be considered as included in the contract price paid for bid items shown in the proposal, and no separate payments shall be made.

Payment for "Public Convenience and Safety," shall be at the contract lump sum price as set forth in the proposal, and shall include all labor, materials, tools, equipment, and all work necessary for the completion of this item.

#### WATER POLLUTION CONTROL

#### Summary

It shall be the responsibility of the Contractor to comply with all of the requirements of the latest 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" and standard industry practice.

This includes, but is not limited to, preparing plans and application, maps as well as all necessary reporting on the SWQCB's Storm Water Multiple Application and Report Tracking System (SMARTS System). The Contractor, working with their certified Qualified Storm Water Pollution Prevention Plan (SWPPP) Developer (QSD), will determine what would be the best course of action to comply with the latest State NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009- DWQ. If the Contractor's QSD determines a SWPPP is the best course of action, it shall be the responsibility of the Contractor and their QSD to submit to Construction Management a completed SWPPP for review. Upon acceptance of the SWPPP document by Construction Management, the QSD shall prepare a Notice of Intention (NOI) application in the SWQCB's SMARTS System and upload all necessary documents and maps to be approved by the Legally Responsible Person (LRP). Until a written approval of the SWPPP has been obtained from the SWQCB, no construction activity shall commence on the project site. Upon obtaining written approval of the SWPPP, it shall be the responsibility of the Contractor to implement the SWPPP. Throughout the course of the project, the Contractor's Qualified SWPPP Practitioner (QSP) shall conduct periodic inspections, testing, any reporting on the SMARTS System as well as coordinate with the QSD to update the SWPPP as necessary. At the conclusion of construction, it shall be the responsibility of the Contractor and his or her QSD/QSP to ensure Annual Report(s) have been prepared on the SMARTS System as well as prepare the Notice of Termination (NOT) for City's approval. The Contractor shall keep a copy of the approved SWPPP, and amendments thereto, at the job site and in the general business office of the Contractor. In addition, the Contractor shall make available to Construction Management copies of all amendments to the SWPPP as prepared by the Contractor. The SWPPP shall be made

available upon request of a representative of the Fresno Metropolitan Flood Control District, Regional Water Quality Control Board, State Water Resources Control Board or U. S. Environmental Protection Agency. Requests by the public shall be directed to the Engineer.

If the Contractor and/or his/her QSD determines that a SWPPP is not necessary, then it shall be the responsibility of the Contractor to provide a list of Best Management Practices (BMP) that are to be implemented during the Work to Construction Management. The Contractor shall implement the BMP in a timely manner and maintain throughout the duration of the project. The Contractor shall keep a copy of the BMP list and any modification to the list at the job site and in the general business office of the Contractor. In addition, the Contractor shall make available to the City copies of all modifications to the BMP list. The BMP list shall be made available upon request of a representative of the Fresno Metropolitan Flood Control District, Regional Water Quality Control Board, State Water Resources Control Board or U. S. Environmental Protection Agency. Requests by the public shall be directed to Construction Management.

#### Notice of violation and/or fines for any non-compliance will be the responsibility of the Contractor.

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 by the City.
- 2. SWPPP is uploaded onto the SMART System.
- 3. WDID is issued.
- 4. 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 anticipated to be 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 Department's "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:
- 5. If the Engineer requests changes to the SWPPP based on RWQCB comments, amend the SWPPP within 10 days.

#### Submit:

- 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.
- 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 Department's "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. Department approved storm water management training described in the Department's "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. Department approved storm water management training described in the Department's "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 13-2, "Water Pollution Control Program," of the Standard Specifications.

Additional WPC work will be paid for as extra work under Section 4-1.05, "Changes and 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
- 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 Department 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
- 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
рН	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 Department 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 Limit
рН	Field test calibrated with portable instrument	0.2	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	Field test calibrated with portable instrument	1	NTU	250 NTU

#### Numeric Effluent Limits (NELs)

If the project is risk level 3, then it is subject to NELs:

If the project is risk level 5, their it is subject to NEEs.					
Parameter	Test Method	Detection Limit (Min)	Unit	Numeric Effluent Limit	
pН	Field test calibrated with portable instrument	0.2	pH units	Lower NEL = 6.0 Upper NEL = 9.0	

Turbidity	Field test calibrated	1	NTU	500 NTU
	with portable			
	instrument			

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 "Water Pollution Control" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in street sweeping, including disposal of collected material, as shown on the plans, as specified in the Standard Specifications, these special provisions, and as directed by the Engineer.

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.

The City does not adjust payment for an increase or decrease in the quantity of storm water sampling and analysis day.

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- 1.05D, "Extra Work," of the State 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 highway right- ofway 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.

# **STREET SWEEPING**

This work includes street sweeping.

The SWPPP must describe and include the use of street sweeping as a water pollution control practice for sediment control and tracking control.

## Submittals

At least 5 business days before starting clearing and grubbing, earthwork, or other activities with the potential for tracking sediment or debris, submit:

- 1. Number of sweepers described in the SWPPP
- 2. Type of sweeper technology

Quality Control and Assurance

Retain and submit records of street sweeping including:

- 1. Quantity of sweeping waste disposal
- 2. Sweeping times and locations

# **CONSTRUCTION**

Street Sweepers

Sweepers must use one of these technologies:

- 1. Mechanical sweeper followed by a vacuum-assisted sweeper
- 2. Vacuum-assisted dry (waterless) sweeper
- 3. Regenerative-air sweeper

# Operation

Street sweeping must be done at:

- 1. Paved roads at job site entrance and exit locations
- 2. Paved areas within the job site that flow to storm drains or water bodies

Street sweeping must be done:

- 1. During clearing and grubbing activities
- 2. During earthwork activities
- 3. During trenching activities
- 4. During roadway structural section activities
- 5. When vehicles are entering and leaving the job site
- 6. After soil disturbing activities
- 7. After observing offsite tracking of material

Monitor paved areas and roadway within the jobsite. Street sweeping must be done:

- 1. Within 1 hour, if sediment or debris is observed during activities that require sweeping
- 2. Within 24 hours, if sediment or debris is observed during activities that do not require sweeping

At least 1 sweeper must be on the job site at all times when sweeping work is required. The sweeper must be in good working order.

Perform street sweeping to minimize dust. If dust generation is excessive or sediment pickup is ineffective, use water or a vacuum.

You may stockpile collected material on the jobsite according to the approved SWPPP. Dispose of collected material at least once per week.

Material collected during street sweeping must be removed and disposed of under Section 7-1.13, "Disposal of Material Outside the Street Right of Way," of the Standard Specifications.

Your WPCM must inspect paved roads at job site access points:

- 1. Daily if earthwork and other sediment or debris generating activities occur daily
- 2. Weekly if earthwork and other sediment or debris generating activities do not occur daily
- 3. When the National Weather Service predicts precipitation with a probability of at least 30 percent

The contract lump sum price paid for "Street Sweeping" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in street sweeping, including disposal of collected material, as shown on the plans, as specified in the Standard Specifications, these special provisions, and as directed by the Engineer.

# PORTABLE CHANGEABLE MESSAGE SIGNS

The contractor shall furnish and maintain (2) changeable message signs.

## **GENERAL**

# Summary

Work includes furnishing, placing, operating, maintaining, and removing portable changeable message signs.

Comply with Section 12-3.32 "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 6-2.03C, "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 15 minutes before closing the lane. Place portable changeable message sign in advance of the first warning sign for:

1. Each stationary lane closure

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**

Payment for "Portable Changeable Message Signs," shall be at the contract unit price as set forth in the proposal and shall include all labor, materials, tools, equipment, and all work necessary for the completion of this item.

Portable changeable message signs ordered by the Engineer in excess of the number shown on the plans or specified in these special provisions will be paid for as extra work under Section 4-1.05, "Changes and Extra Work," of the Standard Specifications.

# **DEMOLOTION**

The Contractor shall remove all concrete, crash cushions, debris, and any other damage items needed to replace the items need to install the crash cushions. Specifically included in this item are all concrete and asphalt pavement, signs, concrete curb and gutter, curb drains, driveway and alley approach, sidewalk, pavement markings, landscaping, and irrigation, fencing and all items damaged.

Payment for "Demolition," shall be at the lump sum price paid as set forth in the proposal and shall include all labor, materials, tools, equipment, compaction, and all work necessary for the completion of this item.

# **INSTALL CRASH CUSHIONS**

Crash cushion shall be furnished and installed as shown on the plans and in conformance with the provisions in the Standard Specifications and these special provisions.

Crash cushion shall be an ADIEM-350 as manufactured by Trinity Industries, Inc., and shall include the items detailed for crash cushion shown on the plans. The successful bidder can obtain the crash cushion from Traffic Management Products, Inc, 4900 Airport Plaza Dr, Suite 300, Long Beach CA 90815, telephone (800) 763-3999.

The Contractor shall furnish the Engineer one copy of the manufacturer's plan and parts list.

The Contractor shall provide the Engineer with a Certificate of Compliance from the manufacturer. The Certificate of Compliance shall certify that the crash cushion conforms to the contract plans and specifications, conforms to the prequalified design and material requirements, and was manufactured in conformance with the approved quality control program.

Crash cushion shall be installed in conformance with the manufacturer's installation instructions.

Surplus excavated material remaining after the crash cushion has been installed shall be disposed of in a uniform manner along the adjacent roadway where designated by the Engineer.

Crash cushion (ADIEM) will be measured by the unit as determined from actual count in place in the completed work.

The contract unit price paid for "Crash Cushion", shall include full compensation for furnishing all labor, materials (including anchor bolts, nuts, washers, and marker panels), tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing the ADIEM type crash cushion, complete in place, including. structure excavation, structure backfill, and disposing of surplus material, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

## RESTORATION

The Contractor shall restore all areas adjacent to the construction area and areas affected during construction to their preconstruction condition. Specifically included in this item are all concrete and asphalt pavement, signs, concrete curb and gutter, curb drains, driveway and alley approach, sidewalk, pavement markings, landscaping, and irrigation, fencing and all items damaged during construction.

The Contractor shall also modify any water sprinkler service that has to be moved back of the new sidewalk so that it remains functional after modification. Contractor shall make the modifications using the same type of materials as the existing system, or materials as approved by the Engineer. Contractor shall remove sidewalk formwork, cleanup and backfill with soil and re-sod to match existing landscaping.

Payment for "Restoration," shall be at the lump sum price paid as set forth in the proposal and shall include all labor, materials, tools, equipment, compaction, and all work necessary for the completion of this item.

# EXHIBIT "C" – CERTIFICATION LABOR CODE SECTION 1861

I, the undersigned Contractor, am aware of the provisions of Section 3700, <u>et seq.</u>, of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I, the undersigned Contractor, agree to and will comply with such provisions before commencing the performance of the Work on this Contract.

[INSERT	CONTRACTOR NAME]
Ву:	Signature
	Name (Print)
	Title (Print)

# EXHIBIT "D" – PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See <a href="http://www.dir.ca.gov/Public-Works/PublicWorks.html">http://www.dir.ca.gov/Public-Works/PublicWorks.html</a> for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Contractor hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.<sup>1</sup>

Name of Contractor:					
DIR Registration Numb	er:				
DIR Registration Expira	tion:				
Small Project Exemptio	n: Yes or	No			
Unless Contractor is exempt pursuacknowledges:	uant to the small	project exer	mption, C	Contractor	further
Contractor shall maintain a current DIR     Contractor shall include the req contract with subcontractors and of bid opening and maintain reg     Failure to submit this form or confinding that the bid is non-responsitely Name of Contractor  Signature  Name and Title	uirements of Labor d ensure that all sub istration status for to imply with any of the nsive.	Code sections occontractors are the duration of the above require	1725.5 ar re registere the project ements ma	ed at the tin t.	ne
Dated					

<sup>&</sup>lt;sup>1</sup> If the Project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

# **APPENDIX**

# **CITY OF MERCED STANDARD DESIGNS**

# THE FOLLOWING STANDARDS ARE FOR REFERENCE ONLY REFER TO THE CITY OF MERCED WEBSITE FOR THE COMPLETE LISTING OF STANDARD DETAILS

http://www.cityofmerced.org/depts/engineering division/standard designs/default.asp

# STATE GENERAL PREVAILING WAGE RATES

General prevailing wage determination

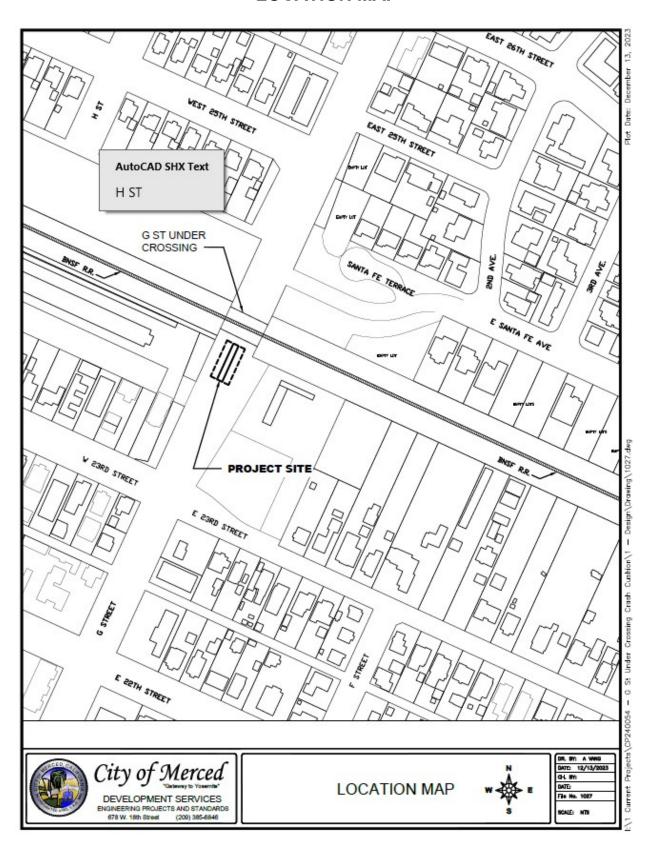
Made by the Director of Industrial Relations

Pursuant to California Labor Code part 7, Chapter 1, article 2, sections 1770, 1773, and 1773.1

**State of California Department of Industrial Relations Website:** 

http://www.dir.ca.gov/OPRL/PWD/index.htm

# **LOCATION MAP**



# **REGULATION VIII – FUGITIVE PM10 PROHIBITIONS**



# COMPLIANCE ASSISTANCE BULLETIN August 2006

# Regulation VIII – Fugitive PM10 Prohibitions Requirements on Paved and Unpaved Public Roads

District Rule 8061(*Paved and Unpaved Roads*) of Regulation VIII (*Fugitive PM10 Prohibitions*) specifies the design criteria for constructing new or modifying existing paved roads and the types of control measures required for limiting fugitive dust emissions from unpaved roads and shoulders. Several compliance dates and deadlines described in the rule apply specifically to city, county, and state agencies. The purpose of this bulletin is to summarize the new requirements for public agencies that own or maintain paved and unpaved roads. The entire rule may be found at <a href="https://www.valleyair.org/rules/1ruleslist.htm-reg8">www.valleyair.org/rules/1ruleslist.htm-reg8</a>.

- Constructing New Unpaved Roads: Effective October 1, 2004, constructing a new unpaved road is
  prohibited in all urban areas unless the unpaved road is used for a temporary activity that does not exceed
  six months of use over a consecutive three-year period. Temporary activities may include construction
  access roads, special events, or traffic detours. The unpaved surface must be maintained in a stabilized
  condition at all times in order to control fugitive emissions.
- PM10-Efficient Street Sweepers: These requirements apply to the routine cleaning of existing paved public roads within urban areas. Effective July 1, 2005, an agency or its contractor may only purchase PM10-efficient street sweepers for their fleets and at least one sweeper must be placed into service by July 1, 2008. PM10-efficient street sweepers are to be used along routine street sweeper routes, which have been predetermined and prioritized by the agency as having paved curbs with the greatest actual or potential for dirt and silt loading. If an agency cannot meet these provisions due to budgetary constraints, a statement of financial hardship must be submitted to the District and the USEPA for review and approval.
- Cleaning Paved Roads after a Storm Event: Within 24 hours of discovery, the agency or contractor responsible for maintaining the roadway must remove the accumulated mud and dirt from the paved road or restrict vehicles from traveling over the mud and dirt until the materials can be removed. This requirement applies if the accumulated mud and dirt is a result of wind or water erosion and runoff, is at least one inch thick, and covers an area of at least 50 square feet. Cleanup may be performed manually with a shovel and broom, or with a conventional or PM10-efficient street sweeper, but must be performed in a manner that minimizes fugitive dust. Using a blowing device or a dry rotary brush or broom is prohibited. Redirecting traffic is one way to restrict vehicles from traveling over the mud and dirt. Upon agency notification, the District may approve an extension of the 24-hour cleanup requirement if restricting vehicles is deemed unsafe and removing the mud and dirt is not possible within 72 hours because crews are not available over a weekend or holiday.

Requirements on Paved and Unpaved Public Roads August 2006 Page 2

- Posting Speed Limit Signs on Unpaved Roads: Effective October 1, 2005, public agencies must establish a maximum speed limit of 25 miles per hour for the unpaved roads under their jurisdictions. This requirement applies to the unpaved road segments where vehicle traffic reaches or exceeds 26 annual average daily trips (AADT). At a minimum, agencies are to post at least one speed limit sign in each direction for every mile of unpaved road located within an urban area, and one sign in each direction for every two miles of unpaved road within a rural area. For example, an unpaved road located within an urban area that is ½ mile long and exceeds 26 AADT requires at least one sign posted in each direction. The unpaved surface must be maintained in a stabilized condition at all times in order to control fugitive emissions.
- Paving Existing Unpaved Roads and Paving or Stabilizing Unpaved Shoulders: On January 1, 2005, agencies provided the District with a report listing each unpaved road located within an urban area and each paved road with unpaved shoulders within urban and rural areas. On July 1, 2005, agencies provided a report listing each unpaved road located within a rural area. These reports include the length in miles and the AADT for each subject road and unpaved shoulder within the agency's jurisdiction.

As of January 1, 2005, agencies are to pave an annual average of 20 percent of the unpaved roads listed in their urban area unpaved road report, thereby paving 100 percent of these unpaved roads by January 1, 2010. This requirement does not apply to rural unpaved roads.

In urban areas, agencies are to pave or stabilize at least four-feet of unpaved shoulders on at least 50 percent of the existing paved roadways having the highest AADT. In rural areas, this is required on at least 25 percent of the existing paved roadways with the highest AADT. Compliance with these provisions must be complete by January 1, 2010.

If an agency cannot meet these provisions due to budgetary constraints, a statement of financial hardship must be submitted to the District and the USEPA for review and approval.

Incremental Progress Reports: Due on April 1 of each year, from 2006 through 2010, agencies must
report their incremental progress to the District by reporting the total miles of urban unpaved roads that
were paved over the previous calendar year, the total miles of unpaved shoulders that were paved or
stabilized over the previous calendar year, and the percentage of cumulative miles treated relative to the
original reports.

For more information please contact the Compliance Department of the District office nearest to you. Information on Regulation VIII is available on the District's website at:

www.valleyair.org



# COMPLIANCE ASSISTANCE BULLETIN April 2007

# Fugitive Dust Control at Construction Sites: New Requirements

Regulation VIII, Fugitive PM10 Prohibitions, of the District's Rules and Regulations apply to many activities that generate fugitive dust, and particularly to construction sites.

Fugitive dust is emitted into the air by activities that disturb the soil, such as earthmoving and vehicular/equipment traffic on unpaved surfaces. Windblown dust is also of concern where soil has been disturbed at construction sites.

The District adopted Regulation VIII in 1993 and its most recent amendments became effective on October 1, 2004. This is a basic summary of the regulation's requirements as they apply to construction sites.

These regulations affect all workers at a regulated construction site, including everyone from the landowner to the subcontractors. Violations of Regulation VIII are subject to enforcement action including fines.

Visible Dust Emissions (VDE) may not exceed 20% opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible Dust Emissions opacity of 20% means dust that would obstruct an observer's view of an object by 20%. District inspectors are state certified to evaluate visible emissions. Dust control may be achieved by applying water before/during earthwork and onto unpaved traffic areas, phasing work to limit dust, and setting up wind fences to limit wind blown dust.

**Soil Stabilization** is required at regulated construction sites after normal working hours and on weekends and holidays. This requirement also applies to inactive construction areas such as phased projects where disturbed land is left unattended. Applying water to form a visible crust on the soil and restricting vehicle access are often effective for short-term stabilization of disturbed surface areas. Long-term methods including applying dust suppressants and establishing vegetative cover.

Carryout and Trackout occur when materials from emptied or loaded vehicles falls onto a paved surface or shoulder of a public road or when materials adhere to vehicle tires and are deposited onto a paved surface or shoulder of a public road. Should either occur, the material must be cleaned up at least daily, and immediately if it extends more than 50 feet from the exit point onto a paved road. The appropriate clean-up methods require the complete removal and cleanup of mud and dirt from the paved surface and shoulder. Using a blower device or dry sweeping with any mechanical device other than a PM10-efficient street sweeper is a violation. Larger construction sites, or sites with a high amount of traffic on one or more days, must prevent carryout and trackout from occurring by installing gravel pads, grizzlies, wheel washers, paved interior roads, or a combination thereof at each exit point from the site. In many cases, cleaning up trackout with water is also prohibited as it may lead to plugged storm drains. Prevention is the best method.

**Unpaved Access and Haul Roads**, as well as unpaved vehicle and equipment traffic areas at construction sites must have dust control. Speed limit signs limiting vehicle speed to 15 mph or less at construction sites must be posted every 500 feet on uncontrolled and unpaved roads.

Northern Region Office 4800 Enterprise Way Modesto, CA 95356-8718 (209) 557-6400 ◆ FAX (209) 557-6475 Central Region Office 1990 East Gettysburg Avenue Fresno, CA 93726-0244 (559) 230-6000 ◆ FAX (559) 230-6062 Southern Region Office 2700 "M" Street, Suite 275 Bakersfield, CA 93301-2373 (661) 326-6900 ◆ FAX (661) 326-6985 Storage Piles and Bulk Materials have handling, storage, and transportation requirements that include applying water when handling materials, wetting or covering stored materials, and installing wind barriers to limit VDE. Also, limiting vehicle speeds, loading haul trucks with a freeboard of six inches or greater along with applying water to the top of the load, and covering the cargo compartments are effective measures for reducing VDE and carryout from vehicles transporting bulk materials.

**Demolition** activities require the application of water to the exterior of the buildings and to unpaved surfaces where materials may fall. A Dust Control Plan will be required for large demolition projects. Consider all structures slated for demolition as possibly being regulated due to potential asbestos, per District Rule 4002 - *National Emission Standards for Hazardous Air Pollutants*. Contact the District well before starting because a 10 working-day notice will likely be required before a demolition can begin.

**Dust Control Plans** identify the dust sources and describe the dust control measures that will be implemented before, during, and after any dust generating activity for the duration of the project. Owners or operators are required to submit plans to the District at least 30 days prior to commencing the work for the following:

- Residential developments of ten or more acres of disturbed surface area.
- Non-residential developments of five or more acres of disturbed surface area.
- The relocation of more than 2,500 cubic yards per day of materials on at least three days.

Operations may not commence until the District has approved the Dust Control Plan. A copy of the plan must be on site and available to workers and District employees. All work on the site is subject to the requirements of the approved dust control plan. A failure to abide by the plan by anyone on site may be subject to enforcement action.

Owners or operators of construction projects that are at least one acre in size and where a Dust Control Plan is not required, must provide written notification to the District at least 48 hours in advance of any earthmoving activity.

**Record Keeping** is required to document compliance with the rules and must be kept for each day any dust control measure is used. The District has developed record forms for water application, street sweeping, and "permanent" controls such as applying long term dust palliatives, vegetation, ground cover materials, paving, or other durable materials. Records must be kept for one year after the end of dust generating activities (Title V sources must keep records for five years).

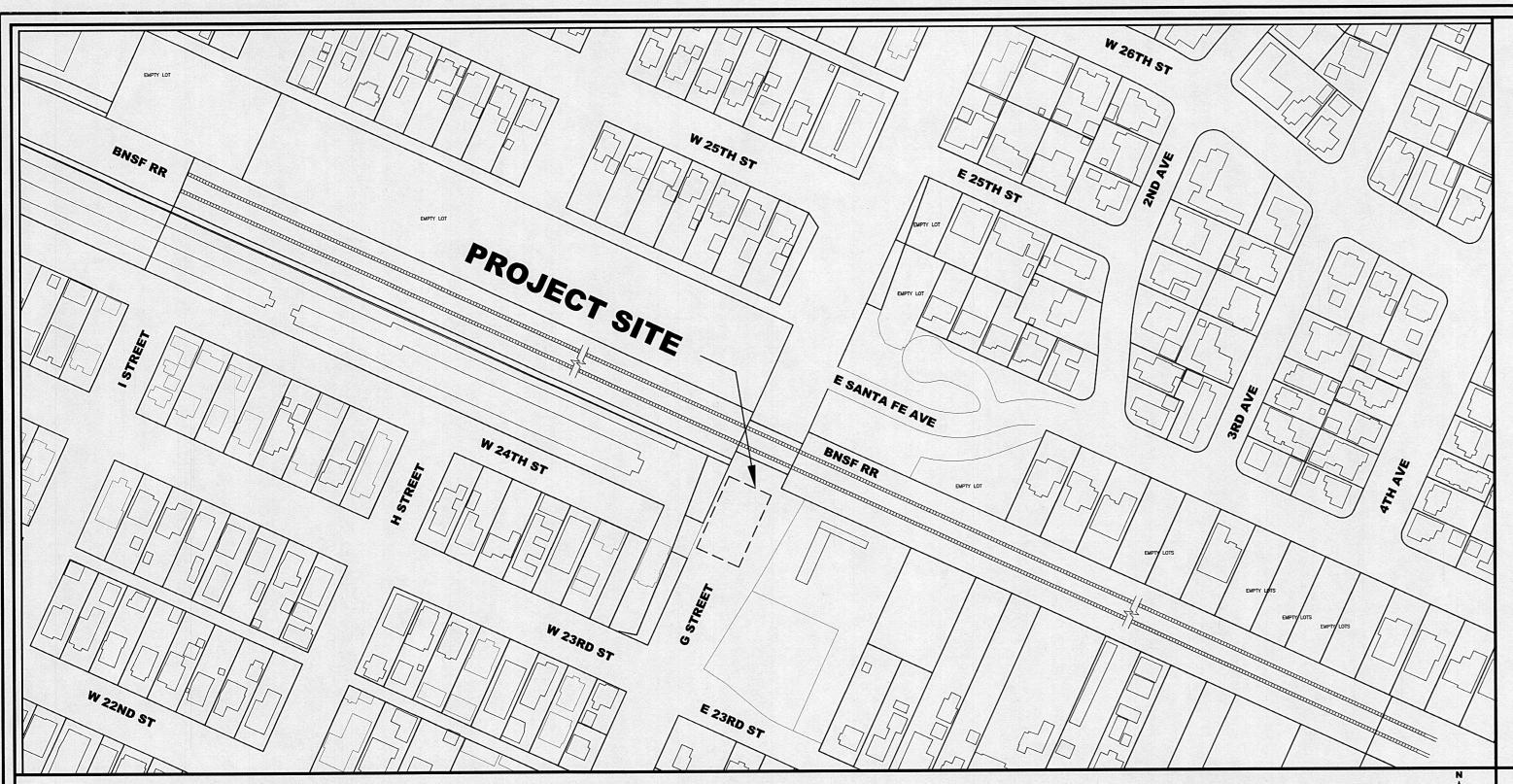
**Exemptions** exist for several activities. Those occurring above 3,000 feet in elevation are exempt from all Regulation VIII requirements. Further, Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities* exempts the following construction and earthmoving activities:

- Blasting activities permitted by California Division of Industrial Safety.
- Maintenance or remodeling of existing buildings provided the addition is less than 50% of the size of the existing building or less than 10,000 square feet (due to asbestos concerns, contact the District at least two weeks ahead of time)
- · Additions to single family dwellings.
- The disking of weeds and vegetation for fire prevention on sites smaller than ½ acre.
- Spreading of daily landfill cover to preserve public health and safety and to comply with California Integrated Waste Management Board requirements.

**Nuisances** are prohibited at all times because District Rule 4102 – *Nuisance* applies to all construction sources of fugitive dust, whether or not they are exempt from Regulation VIII. It is important to monitor dust-generating activities and implement appropriate dust control measures to limit the public's exposure to fugitive dust.

For more information please contact the Compliance Division of the District office nearest to you. Information on Regulation VIII, where you may obtain copies of record keeping forms, the Dust Control Plan template, and the Construction Notification form, is available on the District's website at:

www.valleyair.org, under Compliance Assistance/Dust Control.



NOTE: ALL REFERENCES AND WRITTEN

DIMENSIONS SHALL TAKE

OF ANY WORK.

PREFERENCE OVER SCALED

DIMENSIONS AND SHALL BE VERIFIED ON THE SITE. ANY

TO NOTICE OF THE ENGINEER

PRIOR TO THE COMMENCEMENT

DISCREPANCY SHALL BE BROUGHT

**Underground Service Alert** 

Call: TOLL FREE 1 (800) 642 - 2444

TWO DAYS

BEFORE

YOU DIG

BY | REVISION MADE

# CITY OF MERCED PROJECT NO. CP240054 G ST UNDER CROSSING CRASH CUSHION

DATE: 10/06/2023

CH. BY: ENGR DEPT

DATE: NOVEMBER 2023

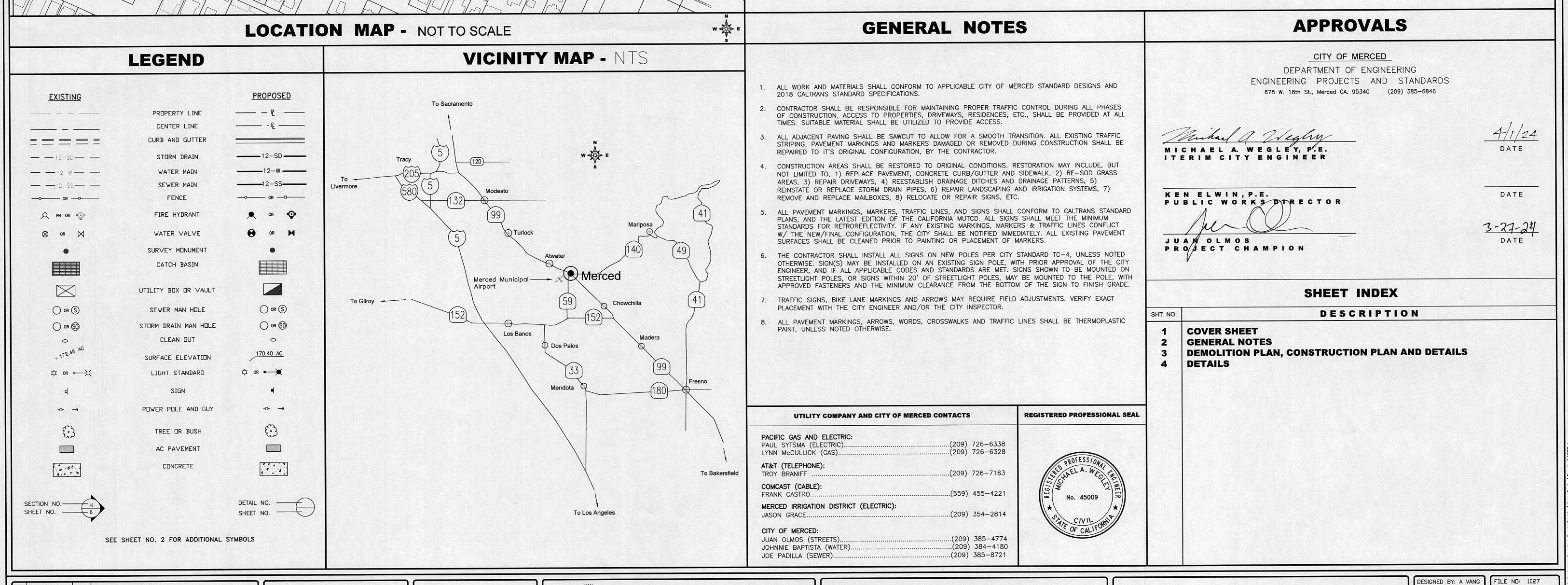
REV DATE: --/--/-

SCALE: AS SHOWN

PROJECT NO. CP240054

G ST UNDER CROSSING

**CRASH CUSHION** 



DEVELOPMENT SERVICE

ENGINEERING PROJECTS AND STANDARDS

678 W. 18th Street (209) 385-6846

**COVER SHEET** 

# **GENERAL NOTES**

- 1. THE CONTRACTOR SHALL OBTAIN A NO FEE ENCROACHMENT PERMIT FROM THE CITY OF MERCED FOR ANY WORK TO BE PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY.
- 2. APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
- 3. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND UTILITIES OR FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS AND SITE POTHOLING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TAKE PRECAUTIONARY MEASURES INCLUDING BUT NOT LIMITED TO POTHOLING, EXPOSING EXISTING UTILITIES AND TO PROTECT ANY EXISTING UTILITIES OR FACILITIES, SHOWN OR NOT SHOWN, ANY DAMAGES DONE AS A RESULT OF THE CONTRACTOR'S WORK OR EQUIPMENT SHALL BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH RESPECTIVE UTILITY COMPANIES.
- 4. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (811) NO LESS THAN 48 HRS PRIOR TO ANY WORK, OR (1-800-227-2600) TO OBTAIN A U.S.A. IDENTIFICATION NUMBER AND TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF REVISIONS ARE NECESSARY DUE TO ACTUAL LOCATION OF EXISTING UTILITIES.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, LICENSES, BONDS, INSURANCE, ETC. REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES.
- 6. FIELD SURVEY INFORMATION CAN BE PROVIDED BY:

CITY OF MERCED PUBLIC WORKS

ENGINEERING PROJECTS AND STANDARDS

- 678 W. 18TH STREET MERCED, CA 95340 (209) 385-6846
- 7. "CITY ENGINEER" SHALL MEAN THE CITY ENGINEER OR HIS/HER AUTHORIZED AGENT ACTING WITHIN THE SCOPE OF HIS/HER
- 8. THE CONTRACTOR SHALL TELEPHONE THE CITY OF MERCED ENGINEERING DEPARTMENT, (209) 386-6846, AT LEAST SEVEN (7) WORKING DAYS PRIOR TO STARTING CONSTRUCTION WORK.
- 9. THE CITY SHALL SCHEDULE A PRECONSTRUCTION CONFERENCE AT THE JOB SITE WITH THE CITY, DEVELOPER, SUBCONTRACTORS, UTILITY COMPANIES, AND OTHER AFFECTED AGENCIES AT LEAST SEVEN (7) WORKING DAYS PRIOR TO STARTING ANY CONSTRUCTION WORK.
- 10. IF ANY CULTURAL FEATURES OR ARCHAEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING, OR ANY OTHER EXCAVATION WORK, ALL WORK WITHIN ONE HUNDRED FEET (100') OF THESE MATERIALS SHALL BE STOPPED IMMEDIATELY UNTIL A PROFESSIONAL ARCHAEOLOGIST CERTIFIED BY THE SOCIETY OF PROFESSIONAL ARCHAEOLOGY (SOPA) AND /OR THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SCA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND APPROPRIATE MITIGATION MEASURES ARE DETERMINED AND IMPLEMENTED.
- 11. REGULAR HOURS OF WORK WILL BE LIMITED TO 8:00 A.M. TO 4:00 P.M., MONDAY THROUGH FRIDAY. THE HOURS OF CONSTRUCTION MAY VARY AT THE DISCRETION OF THE CITY ENGINEER. CONTRACTOR MUST SUBMIT A WRITTEN REQUEST FOR APPROVAL BY THE CITY ENGINEER AT LEAST TWO (2) WORKING DAYS (48 HRS) IN ADVANCE TO WORK DURING ANY OTHER HOURS, WEEKENDS, OR HOLIDAYS. THE FOLLOWING SPECIAL HOURS OF WORK WILL BE ENFORCED FROM MONDAY THROUGH FRIDAY:
- a. WORK ADJACENT TO OR WITHIN FIFTEEN HUNDRED FEET (1500') OF ANY SCHOOL WHILE SCHOOL IS IN SESSION WILL BE LIMITED TO 9:00 A.M. TO 3:00 P.M..
- b. WORK WITHIN THREE HUNDRED FEET (300') OF OCCUPIED RESIDENTIAL UNITS WILL BE LIMITED TO 8:00 A.M. TO 4:00
- 12. THE CONTRACTOR'S OPERATIONS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE OF CALIFORNIA CONSTRUCTION SAFETY ORDERS PERTAINING TO TRENCHES AND EXCAVATIONS.
- 13. ALL TRENCHING, COMPACTION PER NOTES ON SHEET 1 AND PAVING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO CITY STANDARDS T-1 THROUGH T-5.
- 14. THE INSTALLATION OF EROSION CONTROL FACILITIES AND MEASURES IS NECESSARY AT ALL TIMES. (EROSION CONTROL PLAN SHALL BE APPROVED BY THE CITY ENGINEER).
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PROPERTY CORNERS AND SURVEY MONUMENTS (SHOWN OR NOT SHOWN), WITHIN AND AROUND PROJECT BOUNDARIES. MONUMENT PRESERVATION FORM SHALL BE SUBMITTED TO THE CITY PRIOR TO CONSTRUCTION AND AFTER CONSTRUCTION.

- 16. MONUMENTS ARE TO BE SET AS SHOWN ON THE PLANS AND PER THE REQUIREMENTS OF THE SUBDIVISION MAP ACT, LAND SURVEYORS ACT, AND THE CITY SUBDIVISION ORDINANCE AND SHALL BE IN ACCORDANCE WITH THE RULES AND PROCEDURES APPROVED BY THE CITY SURVEYOR. ALL LOT CORNERS AND TRACT BOUNDARIES SHALL BE LOCATED AND MONUMENTED IN ACCORDANCE WITH THE RECORDED TRACT MAP AND WRITTEN CERTIFICATION SHALL BE SUBMITTED TO THE CITY ENGINEER BY THE PROJECT CIVIL ENGINEER.
- 17. ALL UNDERGROUND UTILITIES SHALL BE CONSTRUCTED PRIOR TO THE PLACEMENT OF BASE ROCK UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 18. ALL TRAFFIC SIGNS AND STREET NAME SIGNS SHALL BE HIGH REFLECTIVE GRADE MATERIALS.
- 19. ALL CURB AND GUTTERS, AND SIDEWALK AREAS SHALL BE CONSTRUCTED PER CITY STANDARDS SCG-1 AND SCG-4.
- 20. ALL MANHOLE FRAMES, UTILITY BOXES, VAULT COVERS, ETC. (SHOWN OR NOT SHOWN), WITHIN PROJECT BOUNDARIES, SHALL BE RAISED OR LOWERED BY THE CONTRACTOR TO MATCH FINAL PAVEMENT GRADES.
- 21. THE CITY ENGINEER OR HIS REPRESENTATIVE PRIOR TO THE PLACEMENT OF CONCRETE MUST APPROVE FORMS FOR CURBS, GUTTERS, DRIVEWAYS, AND SIDEWALKS.
- 22. THE CONTRACTOR SHALL PREPARE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY FOR CONDUCTING HIS/HER OPERATIONS IN ADHERENCE TO THE SWPPP. THE CONTRACTOR IS RESPONSIBLE FOR ANY FINES, DELAYS, AND/OR DAMAGES RESULTING FROM ANY STATE WATER QUALITY CONTROL BOARD SANCTIONS CAUSED BY THE OPERATION OF THE CONTRACTOR OR HIS/HER SUBCONTRACTORS.

# CITY OF MERCED STANDARD DESIGNS

## **LEGEND** *GATE* ASPHALT CONCRETE STAND PIPE UTILITY BOX (Elec., T.V., Tel. Traffic) — −12" SD— — STORM DRAIN LINE ---- GAS VALVE ——SD—— STORM DRAIN MAN HOLE BENCHMARK GUY ANCHOR STREET LIGHT BUILDING HOSE BIB STREET NAME SIGN — — 36"IRR— — IRRIGATION LINE STOP SIGN CATCH BASIN - — - □ - — - IRRIGATION STRUCTURE $- - - \otimes^{1} - -$ IRRIGATION VALVE — —T(OH)— — TELEPHONE LINE (OVERHEAD) CENTERLINE CITY LIMIT LINE LIFT STATION TELEPHONE PEDESTAL CLEANOUT --T(UG)-- TELEPHONE (UNDERGROUND) MAILBOX --- MH manhole (gas, ss, sd, tel. or misc.) CONC. SLAB OR SIDEWALK TOPOGRAPHIC SURVEY POINT W/ELEV. & DESC. CURB INLET $- - - \bigcirc - -$ METER (WATER) \_\_\_\_\_ CURB & GUTTER MONUMENT FOUND — —O/H-(E)— — OVER HEAD ELECTRIC DETECTOR HANDHOLE $\{6^n\}$ OR () () TREE - - - Ou- - POLE (POWER AND/OR TEL.) \_\_\_\_\_\_ EDGE OF PAVEMENT TREE STUMP POT HOLE ELECTROLIER POWER POLE — — U.G.F.C — UNDERGROUND FIBER CABLE ELECTRICAL BOX —— U.G.E —— POWER (UNDERGROUND) ----x -----x FENCELINE (BARBED WIRE) — — P.U.E— — PUBLIC UTILITY EASEMENT —— o —— o —— FENCELINE (CHAIN-LINK) — —12"W— — WATER LINE ----- FENCELINE (WOOD) — T,C,E — TELEPHONE, COMMUNICATION, ELECTRIC — T — TELEPHONE — — WATER METER OR Q FIRE HYDRANT -- (S)-- SEWER MANHOLE (SS) ⊗ — — WATER VALVE — — 6"FM — — FORCE MAIN — — 8"S— — SEWER LINE —— 4"G —— GAS LINE SPRINKLERS -—- → - GAS METER

# **ABBREVIATIONS**

ABAN	ABANDON	EVC	END VERTICAL CURVE	PCC	PORLAND CEMENT CONCRETE
AB	AGGREGATE BASE	(E), EXIST	EXISTING	PG&E	PGE PACIFIC GAS AND
	(CRUSH AGGREGATE BASE	FG	FINISH GRADE	ELECTRIC	
	COURSE)	FH	FIRE HYDRANT	PI	POINT OF INTERSECTION
AC	ASPHALT CONCRETE	FL	FLOW LINE	PVC	POINT OF VERTICAL CURVE
	(BITUMINOUS CONCRETE	FLG	FLANGE	PVMT	PAVEMENT
	PAVEMENT)	FW	FRONT OF WALK	R & D	REMOVE AND DESTROY
<b>A.D.</b> I		G	GAS	RC	RELATIVE COMPACTION
ADDDX	ADJUST	ĞB	GRADE BREAK	RAD	RADIUS
APPRX	APPROXIMATELY	GL	GUTTER LIP	RCP	REINFORCED CONCRETE PIPE
ASB	AGGREGATE SUB BASE	HMA	HOT MIX ASPHALT	RT	RIGHT
AT&T, ATT	AMERICAN TELEPHONE AND	HDPE	HIGH DENSITY POLYETHYLENE	R/W	RIGHT OF WAY
50	TELEGRAPH	HORZ, H	HORIZONTAL	S	SOUTH, SLOPE, OR SEWER
BC	BEGIN CURVE	HP	HIGH POINT	SB	SOUTHBOUND
BEG	BEGINNING	INV	INVERT	SC	SAWCUT
BOC	BACK OF CURB	JUT	JOINT UTILITY TRENCH	SD	STORM DRAIN
BW	BACK OF WALK	L	LENGTH	SF	SQUARE FEET
BM	BENCH MARK	LBS	POUNDS	STA	STATION
BC	BEGIN CURVE	LF	LINEAR FEET	STD	STANDARD
С	CONCRETE GRADE	LS	LUMP SUM	SW	SIDEWALK
CB	CATCH BASIN	LT	LEFT	SY	SQUARE YARD
CC	CONCRETE CORNER	MAX	MAXIMUM	T, TEL	TELEPHONE
CE	CONCRETE EDGE	MID	MERCED IRRIGATION DISTRICT	TOB	TOP OF BANK
CIP	CAST IN PLACE	IVIID	(ELECTRIC)	TOE	TOE OF BANK
CL, Ę	CENTERLINE	МН	MANHOLE	TOG, TG	TOP OF GRATE
CONC, C	CONCRETE	MIN	MINIMUM	TC, TOC	TOP OF CURB
CO	SEWER CLEAN OUT	MISC	MISCELLANEOUS	TEMP	TEMPORARY
CVIN	CENTRAL VALLEY INDEPENDENT	MJ	MECHANICAL JOINT	TR	TOP OF RAMP
	NETWORK	MON	MONUMENT	TS	TRAFFIC SIGNAL
CY	CUBIC YARDS	MTL	MATERIAL	TV	TELEVISION
D	DEPTH	N	NORTH	ŤW	TOP OF WALK
DIA	DIAMETER	NB	NORTHBOUND	TYP	TYPICAL
DIP	DUCTILE IRON PIPE			UG, U/G	UNDERGROUND
DL	DAYLIGHT POINT	(N)	NEW	UGE	UNDERGROUND ELECTRIC
DW	DRIVEWAY	NO.	NUMBER	VAR.	VARIABLE
E	EAST	NTS	NOT TO SCALE	VAR. VC	VARIABLE VERTICAL CURVE
EA	EACH	0C	ON CENTER	VE VERT, V	VERTICAL CORVE VERTICAL
EC	END CURVE	OG	ORIGINAL GROUND	WERT, V	WEST OR WATER
EG	EXISTING GROUND	O/H, OH	OVERHEAD		
EP	EDGE OF PAVEMENT	OHE	OVERHEAD ELECTRICAL	WEEP	WEEP (CURB) DRAIN
ELEV	ELEVATION	OHPL	OVERHEAD POWER LINE	WM	WATER METER
				WV	WATER VALVE

NO. DATE	BY	REVISION MADE
<u> </u>	_	_



TWO DAYS **BEFORE** YOU DIG

ALL REFERENCES AND WRITTEN DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED ON THE SITE. ANY DISCREPANCY SHALL BE BROUGHT TO NOTICE OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF



**GENERAL NOTES** 

PROJECT NO. CP240054 **G ST UNDER CROSSING CRASH CUSHION** 

DESIGNED BY: A VANG
DATE: 10/06/2023
CH. BY: ENGR DEPT
DATE: NOVEMBER 2023
REV DATE:/

SCALE: AS SHOWN

ILE ND: 1027

