

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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www.dot.ca.gov/hq/esc/oe



*Serious Drought.  
Help save water!*

August 21, 2014

04-SM,Ala-92-R14.4/R18.8,R0.0/R2.6

04-041004

Project ID 0400000044

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN MATEO AND ALAMEDA COUNTIES AT THE SAN MATEO-HAYWARD BRIDGE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Tuesday, September 9, 2014, instead of Tuesday, August 26, 2014.

This addendum is being issued to set a new bid opening date as shown herein and to revise the project plans, the *Notice to Bidders and Special Provisions*, and the *Bid* book.

Project plan sheets 19, 36 and 39 are replaced and attached for substitution for the like-numbered sheet.

In the *Notice to Bidders and Special Provisions*, in the Registered Persons signature and seal sheet, the signature and seal sheet is replaced as attached.

In the *Notice to Bidders and Special Provisions*, in the "STANDARD PLANS LIST," the following Standard Plan is added as follows:

"B6-21 Joint Seals (Maximum Movement Rating = 2)."

In the *Special Provisions*, Section 8-1.10B, is added as attached.

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In the Special Provisions, Section 14-8.02A, the "Noise Restriction Exceptions" table is replaced as follows:

Activity	Hours	
	From	To
Remove Deck Surface	10:00 p.m. Friday	5:00 a.m. Monday
Remove EAC Deck Overlay	10:00 p.m. Friday	5:00 a.m. Monday
Clean Orthotropic Steel Deck Surface	10:00 p.m. Friday	5:00 a.m. Monday
Place PC Overlay	10:00 p.m. Friday	5:00 a.m. Monday

In the Special Provisions, Section 15-5.01C(8), the 2nd paragraph-is replaced as follows:

"Prepare steel bridge deck surface after the removal of the existing overlay materials. Perform the following activities in the order listed:

1. The steel bridge deck surface must be dry when abrasive blasting is performed.
2. Abrasive blast clean the steel bridge deck surface, including splice plate and bolt head surfaces to comply with SSPC-SP 6/NACE no, 3 with steel shot per section 5.2.3, immediately before placing zinc-rich methacrylate bond coat and polyester concrete overlay. Additional removal work with hand tools may be required to comply with the surface preparation requirements.
3. Remove residue using a vacuum attachment operating concurrently with the blasting equipment. Sweep the deck surface.
4. Blow the deck surface clean using high-pressure air. The presence of toxic metals in the abrasives or paint being removed may place restrictions on the methods of cleaning permitted. Comply with all applicable regulations."

In the Special Provisions, Section 86-1.01, is replaced as attached

In the Special Provisions, Section 86-1.06B, is added as attached.

In the Special Provisions, Section 86-2.06D(2)(a), the 15th item in the 1st paragraph-is replaced as follows:

- "15. Backpanels and back plates are specified in section 86-2.05G."

Addendum No. 2  
Page 3  
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In the *Bid* book, in the "Bid Item List," Items 62 and 63 are added and Items 2 and 61 deleted as attached.

To *Bid* book holders:

In the *Bid* book, pages 3 and 6 of the "Bid Item List" are replaced as attached. The attached Bid Item List is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the *Notice to Bidders* section of the *Notice to Bidders and Special Provisions*.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the *Bid* book.

Submit bids in the *Bid* book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This addendum and attachments are available for the Contractors' download on the Web site:

**[http://www.dot.ca.gov/hq/esc/oe/project\\_ads\\_addenda/04/04-041004](http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-041004)**

If you are not a *Bid* book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

for   
BIJAN SARTIPI  
District Director

Attachments

# CONTRACT NO. 04-041004

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

## HIGHWAYS

Gordon Jeong  
REGISTERED CIVIL ENGINEER 22 JULY 2014



## STRUCTURES

Mary E. Kopsa 5/1/14  
REGISTERED CIVIL ENGINEER



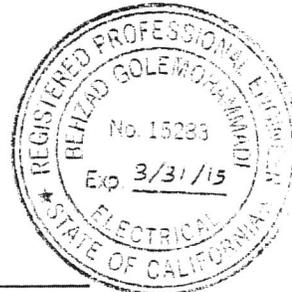
## ENVIRONMENTAL (HAZARDOUS WASTE)

Christopher R. Wilson May 1, 2014  
REGISTERED CIVIL ENGINEER DATE



## ELECTRICAL

[Signature]  
REGISTERED ELECTRICAL ENGINEER



**Add to section 8-1.10B:**

Liquidated damages for not completing the 12 kV system between Electrical Substation 1 and Electrical Substation 3 within 150 working days are \$4,200 per day.

**Add between the 1st and 2nd paragraphs of the RSS for section 86-1.01:**

San Mateo-Hayward Bridge power distribution upgrade work involves:

1. Maintaining the existing traffic management system during construction
2. Removing:
  - 2.1 Existing medium voltage cable
  - 2.2 Battery chargers
  - 2.3 Substation Transformers
  - 2.4 Low voltage control centers in substations 1, 2, 3 and 8
  - 2.5 DC Lighting system in substations 2, 4, 5, 6, 7, and 8
3. Installing:
  - 3.1 Medium voltage armored cable
  - 3.2 Power supply and battery chargers
  - 3.3 Substation Transformers
  - 3.4 Low voltage control centers (LVCC) in substations 1, 2, 3 and 8
  - 3.5 Emergency AC Lighting system in substations 2, 4, 5, 6, 7 and 8

The work is shown on plan sheets labeled E. The work involved in each bid item is shown on a sheet with a title matching the bid item description:

1. Substation No. 1 work includes:
  - 1.1. Provide temporary generator and maintain normal operation.
  - 1.2. Replace substation transformer with new 500 kVA substation transformer, including any distribution switching.
  - 1.3. Replace the low voltage control center.
  - 1.4. Replace battery, charger, and power supply.
  - 1.5. Install new inverter.
2. Substation No. 2 work includes:
  - 2.1. Provide temporary generator and maintain normal operation.
  - 2.2. Replace substation transformer with new 200 kVA substation transformer, including any distribution switching.
  - 2.3. Replace the low voltage control center.
  - 2.4. Replace battery, charger, and power supply.
  - 2.5. Install new inverter.
3. Substation No. 3 work includes:
  - 3.1. Provide temporary generator and maintain normal operation.
  - 3.2. Replace substation transformer with new 300 kVA substation transformer, including any distribution switching.
  - 3.3. Replace the low voltage control center.
  - 3.4. Replace battery, charger, and power supply.
  - 3.5. Install new inverter.
  - 3.6. Remove exiting DC emergency lighting
4. Substation No. 4 work includes:
  - 4.1. Provide temporary generator and maintain normal operation.
  - 4.2. Replace substation transformer with new 200 kVA substation transformer, including any distribution switching.
  - 4.3. Replace battery, charger, and power supply.
  - 4.4. Install new inverter.
5. Substation No. 5 work includes:
  - 5.1. Provide temporary generator and maintain normal operation.
  - 5.2. Replace substation transformer with new 200 kVA substation transformer, including any distribution switching.
  - 5.3. Replace battery, charger, and power supply.
  - 5.4. Install new inverter.

6. Substation No. 6 work includes:
  - 6.1. Provide temporary generator and maintain normal operation.
  - 6.2. Replace substation transformer with new 200 kVA substation transformer, including any distribution switching.
  - 6.3. Replace battery, charger, and power supply.
  - 6.4. Install new inverter.
7. Substation No. 7 work includes:
  - 7.1. Provide temporary generator and maintain normal operation.
  - 7.2. Replace substation transformer with new 200 kVA substation transformer, including any distribution switching.
  - 7.3. Replace battery, charger, and power supply.
  - 7.4. Install new inverter.
8. Substation No. 8 work includes:
  - 8.1. Provide temporary generator and maintain normal operation.
  - 8.2. Replace substation transformer with new 300 kVA substation transformer, including any distribution switching.
  - 8.3. Replace the low voltage control center.
  - 8.4. Replace battery, charger, and power supply.
  - 8.5. Install new inverter.
  - 8.6. Install new building transformer.
  - 8.7. install new switchboard.
9. 12 KV System
  - 9.1. Install medium voltage armored cable and medium voltage cable.
  - 9.2. Install junction boxes and wiring troughs for the medium voltage armored cable and medium voltage cable.
  - 9.3. Test the medium voltage armored cable and the medium voltage cable, prior to connecting the cables to the switchgear.
  - 9.4. Provide temporary generator and maintain normal operation during the cable connections to the switchgear.
  - 9.5. Replace the existing pull boxes on the barrier with new pull boxes, new conductors and cables.

Miscellaneous quantities and maintaining existing traffic management system elements during construction must comply with section 86.

Work performed and material installed must comply with section 86-1.02 and the following:

1. 24 CA Code of Regs Part 3, California Electrical Code
2. National Electrical Safety Code, ANSI/IEEE C2

**Replace "Reserved" in section 86-1.06B with:**

Traffic Management System (TMS) elements include, but are not limited to ramp metering (RM) system, communication system, traffic monitoring stations, video image vehicle detection system (VIVDS), microwave vehicle detection system (MVDS), loop detection system, changeable message sign (CMS) system, extinguishable message sign (EMS) system, highway advisory radio (HAR) system, closed circuit television (CCTV) camera system, roadway weather information system (RWIS), visibility sensor, and fiber optic system.

Existing TMS elements, including detection systems, shown and located within the project limits must remain in place and be protected from damage. If the construction activities require existing TMS elements to be nonoperational or off line, and if temporary or portable TMS elements are not shown, the Contractor must provide for temporary or portable TMS elements. The Contractor must receive authorization on the type of temporary or portable TMS elements and installation method.

Before work is performed, the Engineer, the Contractor, and the Department's Traffic Operations Electrical representatives must jointly conduct a pre-construction operational status check of all existing TMS elements and each element's communication status with the Traffic Management Center (TMC), including existing TMS elements not shown and elements that may not be impacted by the Contractor's activities. The Department's Traffic Operations Electrical representatives will certify the TMS elements' location and status, and provide a copy of the certified list of the existing TMS elements within the project limits to the Contractor. The status list will include the operational, defined as having full functionality, and the nonoperational components.

The Contractor must obtain authorization at least 72 hours before interrupting existing TMS elements' communication with the TMC that will result in the elements being nonoperational or off line. The Contractor must notify the Engineer at least 72 hours before starting excavation activities.

Traffic monitoring stations and their associated communication systems, which were verified to be operational during the pre-construction operational status check, must remain operational on freeway/highway mainline at all times, except:

1. For a duration of up to 15 days on any continuous segment of the freeway/highway longer than 3 miles
2. For a duration of up to 60 days on any continuous segment of the freeway/highway shorter than 3 miles

If the construction activities require existing detection systems to be nonoperational or off line for a longer time period or the spacing between traffic monitoring stations is more than the specified criteria above, and temporary or portable detection operations are not shown, the Contractor must provide provisions for temporary or portable detection operations. The Contractor must receive authorization on the type of detection and installation before installing the temporary or portable detection.

If existing TMS elements shown or identified during the pre-construction operational status check, except traffic monitoring stations, are damaged or fail due to the Contractor's activity, where the elements are not fully functional, the Engineer must be notified immediately. If the Contractor is notified by the Engineer that existing TMS elements have been damaged, have failed or are not fully functional due to the Contractor's activity, the damaged or failed TMS elements, excluding structure-related elements, must be repaired or replaced, at the Contractor's expense, within 24 hours. For a structure-related elements, the Contractor must install temporary or portable TMS elements within 24 hours. For nonstructure-related TMS elements, the Engineer may authorize temporary or portable TMS elements for use during the construction activities.

If fiber optic cables are damaged due to the Contractor's activities, the Contractor must install new fiber optic cables from an original splice point or termination to an original splice point or termination, unless otherwise authorized. Fiber optic cable must be spliced at the splice vaults if available. The amount of new fiber optic cable slack in splice vaults and the number of new fiber optic cable splices must be equivalent to the amount of slack and number of splices existing before the damage or as directed by the Engineer. Fusion splicing will be required.

The Contractor must demonstrate that repaired or replaced elements operate in a manner equal to or better than the replaced equipment. If the Contractor fails to perform required repairs or replacement work, the Department may perform the repair or replacement work and the cost will be deducted from monies due to the Contractor.

A TMS element must be considered nonoperational or off line for the duration of time that active communications with the TMC is disrupted, resulting in messages and commands not transmitted from or to the TMS element.

The Contractor must provide provisions for replacing existing TMS elements within the project limits, including detection systems, that were not identified on the plans or during the pre-construction operational status check that became damaged due to the Contractor's activities.

If the pre-construction operational status check identified existing TMS elements, then the Contractor, the Engineer, and the Department's Traffic Operations Electrical representatives must jointly conduct a post construction operational status check of all existing TMS elements and each element's communication status with the TMC. The Department's Traffic Operations Electrical representatives will certify the TMS elements' status and provide a copy of the certified list of the existing TMS elements within the project limits to the Contractor. The status list will include the operational, defined as having full functionality, and the nonoperational components. TMS elements that cease to be functional between pre and post construction status checks must be repaired at the Contractor's expense.

The Engineer will authorize the schedule for final replacement, the replacement methods and the replacement elements, including element types and installation methods before repair or replacement work is performed. The final TMS elements must be new and of equal or better quality than the existing TMS elements.

If no electrical work exists on the project and no TMS elements are identified within the project limits, the pre-construction operational status check is change order work.

Furnishing and installing temporary or portable TMS elements that are not shown, but are required when an existing TMS element becomes nonoperational or off line due to construction activities, is change order work.

Furnishing and installing temporary or portable TMS elements and replacing TMS elements that are not shown nor identified during the pre-construction operational status check and were damaged by construction activities is change order work.

If the Contractor is required to submit provisions for the replacement of TMS elements that were not identified, submitting the provisions is change order work.

**BID ITEM LIST**

**04-041004**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070030	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
2	BLANK					
3	080050	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
4	090105	TIME-RELATED OVERHEAD (LS)	LS	LUMP SUM	LUMP SUM	
5	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
6	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
7	128652	PORTABLE CHANGEABLE MESSAGE SIGN (LS)	LS	LUMP SUM	LUMP SUM	
8	130100	JOB SITE MANAGEMENT	LS	LUMP SUM	LUMP SUM	
9	130200	PREPARE WATER POLLUTION CONTROL PROGRAM	LS	LUMP SUM	LUMP SUM	
10	130730	STREET SWEEPING	LS	LUMP SUM	LUMP SUM	
11	130900	TEMPORARY CONCRETE WASHOUT	LS	LUMP SUM	LUMP SUM	
12	141103	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	LF	71,400		
13	141110	WORK AREA MONITORING (BRIDGE)	LS	LUMP SUM	LUMP SUM	
14	150310	RAPID SETTING CONCRETE (PATCH)	CF	5,684		
15	150312	REPAIR SPALLED SURFACE AREA	SQFT	2,971		
16	150714	REMOVE THERMOPLASTIC TRAFFIC STRIPE	LF	214,000		
17	044657	REMOVE EPOXY ASPHALT CONCRETE OVERLAY	SQFT	418,935		
18	150870	REMOVE CONCRETE DECK SURFACE	SQFT	347,624		
19	044658	SALVAGE ALUMINOUS POST	EA	9		
20	044659	RECONSTRUCT ALUMINUM RAILING	LF	96		

**BID ITEM LIST  
04-041004**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	BLANK					
62	141000	TEMPORARY FENCE (TYPE ESA)	LF	1,000		
63	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

**TOTAL BID**

**FOR BID ITEMS:**

**\$**

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**TOTAL BID**

**FOR TIME:**

$$\frac{\text{WORKING DAYS BID (Not to exceed 250 Days)}}{\text{COST PER DAY}} \times \$12,500.00 = \$$$

**TOTAL BID FOR COMPARISON (COST PLUS TIME):**

**\$**

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