STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor
DEPARTMENT OF TRANSPORTATION
ESC/OE MS#43
P.O. Box 942874
SACRAMENTO, CA 94274-0001

TDD (916) 654-4014

December 29, 1997

04-CC,Sol-80-12.8/14.1,0.0/0.6
04-043934

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in CONTRA COSTA AND SOLANO COUNTIES AT CROCKETT AND IN VALLEJO FROM CUMMINGS SKYWAY OVERCROSSING TO CARQUINEZ BRIDGE TOLL PLAZA..

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 February 18, 1998, instead of the original date of January 27, 1998.

This addendum is being issued to set a new bid opening date as shown herein and to revise the Notice to Contractors and Special Provisions and the Proposal and Contract.

In the Notice To Contractors And Special Provisions, in the "Pre-Award Meeting Special Notice", and in the first paragraph of Section 3 "Pre-Award Meeting And Award And Execution of Contract", and in the Proposal And Contract, in the "Pre-Award Meeting Special Notice", the pre-award qualifications review meeting date is revised from January 29, 1998 to February 20, 1998.

To Proposal and Contract book holders:

INDICATE RECEIPT OF THIS ADDENDUM BY FILLING IN THE NUMBER OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE SIGNATURE PAGE OF THE PROPOSAL.

Submit bids in the Proposal and Contract 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 office is sending this addendum by confirmed facsimile to all book holders to ensure that each receives it.

If you are not a Proposal and Contract 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,

ORIGINAL SIGNED BY

NICK YAMBAO, Chief
Plans, Specifications &
Estimates Branch
Office of Office Engineer

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IMPORTANT

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SEISMIC RETROFIT
INFORMAL BIDS CONTRACT
SPECIAL NOTICE

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The bidder's attention is directed to the following special requirements for this project concerning submission of MBE/WBE/DVBE information, award and execution of contract, and beginning of work:

Attention is directed to Sections 2-1.01, "General," and 2-1.02, "Minority Business Enterprise (MBE), Women Business Enterprise (WBE) and Disabled Veteran Business Enterprise (DVBE)" of the Special Provisions, regarding changes in listing of subcontractors and joint venture partners. The List of Subcontractors and "Caltrans Bidder MBE/WBE/DVBE Information" forms in the Proposal have also been revised.

Attention is also directed to Section 2-1.03, "MBE/WBE/DVBE Goals for this Project" of the Special Provisions. Contractors bidding on projects with MBE/WBE/DVBE goals may call the Department's Business Enterprise Program at (916) 227-9599 for program information and certification status. NEDA and Triaxial Management Services will no longer provide lists of potential subcontractors to contractors bidding on projects with MBE/WBE/DVBE goals.

First-tier subcontractors that will be used for meeting DBE goals must be listed in the "List of Subcontractors" form regardless of dollar amount of work to be performed. Second- and lower-tier subcontractors need not be listed on the "List of Subcontractors" form. Other, non-DBE subcontractors are to be listed on the "List of Subcontractors" form in accordance with the requirements in Section 2-1.054 of the Standard Specifications and the Special Provisions.

Identify second- and lower-tier MBE, WBE and DVBE subcontractors on the "Caltrans Bidder MBE/WBE/DVBE Information" form.

Subparagraph (d) and subparagraph (h) of Section 2-1.02 has been revised regarding joint venture partners.

MBE/WBE/DVBE information shall be submitted **with the bid proposal**. (See **Section 2-1.04** of the special provisions.) The evaluation of the effort to meet the MBE/WBE/DVBE goal will be based on the information provided with the bid proposal. If the goal was not met, Caltrans' determination of good faith effort will be based on the information provided with the bid, and the decision will be final. Bidders and all subcontractors listed in the MBE/WBE/DVBE Information shall be available, by phone, on the day following the bid opening.

The MBE/WBE/DVBE information shall include all MBE, WBE and DVBE partners.

It is anticipated that this contract will be awarded within **10 days after bid opening**.

If the Bidder submits cash or a cashier's check or a certified check as the form of bidder's security (see Section 2-1.07 of the Standard Specifications), the Bidder shall also include with the bid submittal a signed and notarized affidavit from an admitted surety insurer that contract bonds, as required by Section 3-1.02, "Contract Bonds," of the Standard Specifications, will be provided within the specified time for executing and returning the contract for approval.

If the bidder claims a mistake was made in his bid, the bidder shall give the Department written notice within 48-hours, not including Saturdays, Sundays and legal holidays, after the opening of bids of the alleged mistake in lieu of the 5 days specified in Section 2-1.095, "Relief of Bidders," in the Standard Specifications. (See Section 2-1.01 of the special provisions.) Caltrans' FAX number for submitting this information is (916)227-6282. Such information shall be submitted "Attention Office Engineer."

The contract shall be signed by the successful bidder and shall be received with contract bonds by the Office of Office Engineer within **4 days**, including Saturdays, Sundays and legal holidays, after the bidder has received notice that the contract has been awarded. (See Section 3 of the special provisions.)

If properly executed by the bidder, it is anticipated the contract will be approved within 24 hours of when the executed contract and contract bonds are received by the Department.

The Contractor shall begin work within 5 calendar days after receiving notice that the contract has been approved. The contract work shall be completed before the expiration of **400 WORKING DAYS** beginning at **12:01 a.m. on the DAY AFTER THE DAY OF CONTRACT AWARD.** The definition of a working day has been re-defined for this project. (See Section 4 of the special provisions.)

The time limit specified in the Special Provisions for the completion of work contemplated herein is considered insufficient to permit completion of the work by the Contractor working a normal number of hours per day or week on a single shift basis. It is expected that additional shifts will be required throughout the life of the contract to the extent deemed necessary to ensure that the work will be completed within the time limit specified. (See Section 4 of the Special Provisions).

The following forms have been included at the end of the Proposal and Contract book to assist the successful bidder in early execution of the contract documents: Payment Bond, Performance Bond, Insurance, Vendor Data Record.

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IMPORTANT

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DISPUTES REVIEW BOARD
SPECIAL NOTICE

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The bidder's attention is directed to Section 5, containing specifications for "Disputes Review Board," of the Special Provisions, regarding establishing a Disputes Review Board (DRB) for the project. The Proposal and Contract Book also contains a copy of the Disputes Review Board Agreement to be executed should the DRB be established.

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IMPORTANT

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PRE-AWARD MEETING
SPECIAL NOTICE

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The bidder's attention is directed to Section 2-1.07, "Bridge Seismic Retrofit Information/Questionnaire," and Section 3, "Pre-Award Meeting and Award and Execution of Contract," in the Special Provisions.

Responses to the **"Bridge Seismic Retrofit Information/Questionnaire"** included in the Proposal must be **submitted with the bid**.

A pre-award **qualifications review meeting** will be conducted with the apparent low bidder on **January 29, 1998 at 10:00 a.m. in the third floor conference room, 1727 - 30th Street, Sacramento, CA 95816.** The purpose of the meeting will be to determine the bidder's qualifications and ability to complete the seismic retrofit work on this project. The second and third apparent low bidders may also be requested to participate in pre-award qualifications review meetings.

Establishing to the satisfaction of the Department the bidder's qualifications and ability to complete the bridge seismic retrofit work in a safe and timely manner is a condition for being eligible for award of the contract.

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CALIFORNIA COMPANY PREFERENCE
SPECIAL NOTICE

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Attention is directed to "California Company Preference" of the Special Provisions and the California Company Preference form in the Proposal. A disclosure of bid preferences provided to the nonresident Contractor by the state or country of the nonresident Contractor's principal place of business is now required.

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SHOCK TRANSMISSION DEVICES

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Attention is directed to “Shock Transmission Devices” of the special provisions which requires the Contractor to submit qualifications of his chosen STD manufacturer with his bid.

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CONTRACT NO. 04-043934

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

STRUCTURES

Carquinez East Bound "A4E" Main Spans, "A4E" Approach Spans and "D" Line

REGISTERED CIVIL ENGINEER

HIGHWAY

Robert L Faber 6/20/97

REGISTERED CIVIL ENGINEER

TRAFFIC

Robert L Faber 6/20/97

REGISTERED CIVIL ENGINEER

DRAINAGE

Edward A. Krumrei 6/13/97

REGISTERED CIVIL ENGINEER

UTILITIES

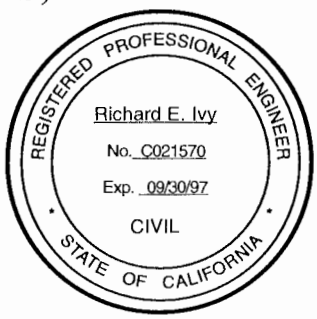
Ivan F Gennis 6-13-97

REGISTERED CIVIL ENGINEER

ELECTRICAL (TRAFFIC SIGNALS)

Richard E. Ivy 6-9-97

REGISTERED CIVIL ENGINEER



ELECTRICAL (LIGHTING AND TRAFFIC OPERATIONS SYSTEM)

Marlene Lee 6-9-97

REGISTERED ELECTRICAL ENGINEER

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DEPARTMENT OF TRANSPORTATION

NOTICE TO CONTRACTORS

THIS IS AN INFORMAL BIDS CONTRACT

CONTRACT NO. 04-043934

04-CC,Sol-80-12.8/14.1,0.0/0.6

Sealed proposals for the work shown on the plans entitled:

> **STATE OF CALIFORNIA; DEPARTMENT OF TRANSPORTATION; PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY IN CONTRA COSTA AND SOLANO COUNTITIES AT CROCKETT AND IN VALLEJO FROM CUMMINGS SKYWAY OVERCROSSING TO CARQUINEZ BRIDGE TOLL PLAZA.**

will be received at the Department of Transportation, 1120 N Street, Room 0200, MS #26, Sacramento, California 95814, until 2 o'clock p.m. on January 27, 1998, at which time they will be publicly opened and read in Room 0100 at the same address.

Proposal forms for this work are included in a separate book entitled:

> **STATE OF CALIFORNIA; DEPARTMENT OF TRANSPORTATION; PROPOSAL AND CONTRACT FOR CONSTRUCTION ON STATE HIGHWAY IN CONTRA COSTA AND SOLANO COUNTITIES AT CROCKETT AND IN VALLEJO FROM CUMMINGS SKYWAY OVERCROSSING TO CARQUINEZ BRIDGE TOLL PLAZA.**

General work description: TOLL BRIDGE SEISMIC RETROFIT OF CARQUINEZ BRIDGE

This project has a combined goal of 20 percent minority business enterprise (MBE), women business enterprise (WBE) and disabled veteran business enterprise (DVBE) participation.

No pre-bid meeting is scheduled for this project.

Bidder inquiries may be made as follows:

For structures work: Structures PS&E Duty Senior, Specifications and Estimating Branch, telephone number (916) 227-8770.

For all other inquiries: Toll Bridge Retrofit Program Duty Senior at District 04 Office, 111 Grand Avenue, Oakland, California 94612; Fax Number (510) 286-4563, e-mail ybermude@trmx3.dot.ca.gov, telephone number (510) 286-5549.

Bidders will be requested to submit their inquiries in writing to the Oakland address, accompanied by an electronic copy where feasible, in order to avoid any misunderstandings. Written inquiries shall include the bidder's name, address and phone number. Written inquiries will be investigated and an addendum to the contract will be issued to the extent feasible and at the discretion of the Department. A copy of each addendum will also be posted on the Internet at "http://tresc.dot.ca.gov/sfobb/inquiry.html.

The time limit specified for the completion of the work contemplated herein is considered insufficient to permit completion of the work by the Contractor working a normal number of hours per day or week on a single shift basis. Should the Contractor fail to maintain the progress of the work in accordance with the "Progress Schedule" required in these special provisions, additional shifts will be required to the extent necessary to ensure that the progress conforms to the abovementioned schedule and that the work will be completed within the time limit specified.

Bids are required for the entire work described herein.

At the time this contract is awarded, the Contractor shall possess either a Class A license or a combination of Class C licenses which constitutes a majority of the work.

The Contractor must also be properly licensed at the time the bid is submitted, except that on a joint venture bid a joint venture license may be obtained by a combination of licenses after bid opening but before award in accordance with Business and Professions Code, Section 7029.1.

This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

Preference will be granted to bidders properly certified as a "Small Business" as determined by the Department of General Services, Office of Small and Minority Business at the time of bid opening in accordance with the provisions in Section 2-1.05, "Small Business Preference," of the special provisions, and Section 1896 et seq, Title 2, California Code of Regulations. A form for requesting such preference is included with the bid documents. Applications for status as a "Small Business" must be submitted to the Department of General Services, Office of Small and Minority Business, 1531 "I" Street, Second Floor, Sacramento, CA 95814, Telephone No. (916) 322-5060.

A reciprocal preference will be granted to "California company" bidders in accordance with Section 6107 of the Public Contract Code. (See Sections 2 and 3 of the special provisions.) A form for indicating whether bidders are or are not a "California company" is included in the bid documents and is to be filled in and signed by all bidders.

Project plans, special provisions, and proposal forms for bidding this project can only be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building, 1120 N Street, MS #26, Sacramento, California 95814, FAX No. (916) 654-7028, Telephone No. (916) 654-4490. Use FAX orders to expedite orders for project plans, special provisions and proposal forms. FAX orders must include credit card charge number, card expiration date and authorizing signature. Project plans, special provisions, and proposal forms may be seen at the above Department of Transportation office and at the offices of the District Directors of Transportation at Santa Ana, Oakland, and the district in which the work is situated. Standard Specifications and Standard Plans are available through the State of California, Department of Transportation, Publications Unit, 1900 Royal Oaks Drive, Sacramento, CA 95815, Telephone No. (916) 445-3520.

Cross sections for this project are not available.

The successful bidder shall furnish a payment bond and a performance bond.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available at the Labor Compliance Office at the offices of the District Director of Transportation for the district in which the work is situated. Future effective general prevailing wage rates which have been predetermined and are on file with the Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

DEPARTMENT OF TRANSPORTATION

Deputy Director Transportation Engineering

Dated October 27, 1997

RRF/BA

COPY OF ENGINEER'S ESTIMATE

(NOT TO BE USED FOR BIDDING PURPOSES)

04-043934

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070010	PROGRESS SCHEDULE (CRITICAL PATH)	LS	LUMP SUM	LUMP SUM	
2 (S)	011304	TEMPORARY HIGH VISIBILITY BOUNDARY FENCE	LF	1,440		
3 (S)	071321	TEMPORARY FENCE (TYPE CL-6)	LF	1,590		
4 (S)	011305	TEMPORARY SILT FENCE	LF	1,450		
5	046811	TEMPORARY DECK BRIDGING	LS	LUMP SUM	LUMP SUM	
6 (S)	074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM	LUMP SUM	
7 (S)	074020	WATER POLLUTION CONTROL	LS	LUMP SUM	LUMP SUM	
8 (S)	011306	TEMPORARY DRAINAGE INLET PROTECTION	EA	32		
9 (S)	011307	TEMPORARY STOCKPILE COVER	SQYD	2,100		
10	011308	ELECTRONIC MOBILE DAILY DIARY COMPUTER SYSTEM	LS	LUMP SUM	LUMP SUM	
11	011309	ELECTRONIC MOBILE DAILY DIARY SYSTEM DATA DELIVERY	LS	LUMP SUM	LUMP SUM	
12 (S)	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
13 (S)	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
14 (S)	011310	TRAFFIC CONTROL (CROSSOVER DETOUR)	EA	160		
15	120120	TYPE III BARRICADE	EA	59		
16	120151	TEMPORARY TRAFFIC STRIPE (TAPE)	LF	6,480		
17	120165	CHANNELIZER (SURFACE MOUNTED)	EA	510		
18	120300	TEMPORARY PAVEMENT MARKER	EA	1,290		
19 (S)	121140	TEMPORARY METAL BEAM GUARD RAILING	LF	150		
20 (S)	011311	TEMPORARY ANCHOR ASSEMBLY (BREAKAWAY, TYPE M)	EA	2		

COPY OF ENGINEER'S ESTIMATE
(NOT TO BE USED FOR BIDDING PURPOSES)
04-043934

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21 (S)	121146	TEMPORARY CABLE ANCHOR ASSEMBLY (BREAKAWAY, TYPE B)	EA	2		
22 (S)	011312	TEMPORARY TERMINAL SECTION (TYPE M)	EA	2		
23	128650	PORTABLE CHANGEABLE MESSAGE SIGN	EA	5		
24	129000	TEMPORARY RAILING (TYPE K)	LF	10,800		
25	011313	MOVEABLE CONCRETE BARRIER	LF	5,610		
26	129100	TEMPORARY CRASH CUSHION MODULE	EA	50		
27	046812	RESET BENCHMARK	EA	14		
28	046813	SALVAGE AND REINSTALL STRUCTURAL ELEMENT (LOCATION B)	LS	LUMP SUM	LUMP SUM	
29	046814	SALVAGE AND REINSTALL STRUCTURAL ELEMENT (LOCATION C)	LS	LUMP SUM	LUMP SUM	
30	046815	TEMPORARY ACCESS OPENING	EA	63		
31	046816	PERMANENT ACCESS OPENING	EA	17		
32	150206	ABANDON CULVERT	EA	11		
33 (S)	046817	WORK AREA MONITORING (LOCATION A)	LS	LUMP SUM	LUMP SUM	
34 (S)	046818	WORK AREA MONITORING (LOCATION B)	LS	LUMP SUM	LUMP SUM	
35 (S)	046819	WORK AREA MONITORING (LOCATION C)	LS	LUMP SUM	LUMP SUM	
36	150305	OBLITERATE SURFACING	SQYD	830		
37	150608	REMOVE CHAIN LINK FENCE	LF	170		
38	150662	REMOVE METAL BEAM GUARD RAILING	LF	160		
39	150667	REMOVE DOUBLE METAL BEAM BARRIER	LF	2,310		
40	150711	REMOVE PAINTED TRAFFIC STRIPE	LF	42,600		

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	150712	REMOVE PAINTED PAVEMENT MARKING	SQFT	880		
42	150714	REMOVE THERMOPLASTIC TRAFFIC STRIPE	LF	13,700		
43	150722	REMOVE PAVEMENT MARKER	EA	8,470		
44	150742	REMOVE ROADSIDE SIGN	EA	5		
45	150805	REMOVE CULVERT	LF	660		
46	150820	REMOVE INLET	EA	12		
47	150830	REMOVE RETAINING WALL (PORTION)	CY	32		
48	151540	RECONSTRUCT CHAIN LINK FENCE	LF	220		
49	011314	RESET PARKING BUMPER	EA	17		
50	152390	RELOCATE ROADSIDE SIGN	EA	8		
51 (S)	011315	PLANE ASPHALT CONCRETE PAVEMENT (0.17' MAXIMUM)	SQYD	830		
52 (S)	011316	PLANE ASPHALT CONCRETE PAVEMENT (0.20' MAXIMUM)	SQYD	7,250		
53	153214	REMOVE CONCRETE CURB	LF	2,780		
54 (F)	156560	REMOVE STRUCTURAL STEEL	LB	1,446,900		
55	157561	BRIDGE REMOVAL (PORTION), LOCATION A	LS	LUMP SUM	LUMP SUM	
56	157562	BRIDGE REMOVAL (PORTION), LOCATION B	LS	LUMP SUM	LUMP SUM	
57	157563	BRIDGE REMOVAL (PORTION), LOCATION C	LS	LUMP SUM	LUMP SUM	
58 (S)	011317	BRIDGE UTILITY AND MAINTENANCE EQUIPMENT WORK	LS	LUMP SUM	LUMP SUM	
59 (S)	159102	RAISE BRIDGE, LOCATION A	LS	LUMP SUM	LUMP SUM	
60 (S)	159103	RAISE BRIDGE, LOCATION B	LS	LUMP SUM	LUMP SUM	

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61 (S)	159104	RAISE BRIDGE, LOCATION C	LS	LUMP SUM	LUMP SUM	
62	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
63	170101	DEVELOP WATER SUPPLY	LS	LUMP SUM	LUMP SUM	
64	190101	ROADWAY EXCAVATION	CY	5,850		
65	011318	ROADWAY EXCAVATION (HAZARDOUS MATERIAL)	CY	5,280		
66	011319	DRAINAGE EXCAVATION (HAZARDOUS)	CY	2,360		
67 (S)	011320	SAINTARY SEWER EXCAVATION (HAZARDOUS)	CY	690		
68 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	2,752		
69 (S)	011916	WATER CONTROL	LS	LUMP SUM	LUMP SUM	
70 (F)	192020	STRUCTURE EXCAVATION (TYPE D)	CY	661		
71 (F)	192021	STRUCTURE EXCAVATION (TYPE DH)	CY	2,362		
72 (F)	192023	STRUCTURE EXCAVATION (TYPE H)	CY	1,832		
73 (S-F)	011321	STRUCTURE EXCAVATION (RETAINING WALL, TYPE H)	CY	370		
74 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	CY	2,141		
75 (S-F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	CY	280		
76	011322	DRAINAGE BACKFILL(CLASS 3 AB)	CY	860		
77	011323	DRAINAGE BACKFILL (IMPORTED BORROW)	CY	940		
78 (S)	011324	SANITARY SEWER BACKFILL (CLASS 3 AB)	CY	140		
79 (S)	011325	SANITARY SEWER BACKFILL (IMPORTED BORROW)	CY	250		
80	193114	SAND BACKFILL	CY	47		

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	198001	IMPORTED BORROW	TON	2,780		
82 (S)	203003	STRAW (EROSION CONTROL)	TON	8		
83 (S)	203014	FIBER (EROSION CONTROL)	TON	2		
84 (S)	203040	SEED (EROSION CONTROL)	LB	170		
85 (S)	203056	COMMERCIAL FERTILIZER (EROSION CONTROL)	TON	1		
86 (S)	203061	STABILIZING EMULSION (EROSION CONTROL)	LB	460		
87	260301	CLASS 3 AGGREGATE BASE	CY	3,060		
88	390155	ASPHALT CONCRETE (TYPE A)	TON	9,969		
89	394040	PLACE ASPHALT CONCRETE DIKE (TYPE A)	LF	100		
90	394042	PLACE ASPHALT CONCRETE DIKE (TYPE B)	LF	380		
91	394044	PLACE ASPHALT CONCRETE DIKE (TYPE C)	LF	130		
92 (S-F)	394048	PLACE ASPHALT CONCRETE DIKE (TYPE E)	LF	2,790		
93 (S)	490604	30" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	17,750		
94 (S)	046821	48" CIDH PILING (W/PERMANENT CASING)	LF	1,440		
95 (S)	500010	PRESTRESSING	LS	LUMP SUM	LUMP SUM	
96 (S)	046823	PRESTRESSING HIGH STRENGTH ROD (LOCATION A)	LS	LUMP SUM	LUMP SUM	
97 (S)	046824	PRESTRESSING HIGH STRENGTH ROD (LOCATION B)	LS	LUMP SUM	LUMP SUM	
98 (S)	046825	PRESTRESSING HIGH STRENGTH ROD (LOCATION C)	LS	LUMP SUM	LUMP SUM	
99 (S)	046826	PRESTRESSING CONCRETE EXTERNAL TENDON (LOCATION A)	LS	LUMP SUM	LUMP SUM	
100 (S)	046827	PRESTRESSING CONCRETE EXTERNAL TENDON (LOCATION B)	LS	LUMP SUM	LUMP SUM	

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101 (S)	500060	TIEDOWN ANCHOR	EA	8		
102 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	5,900		
103 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	CY	6,066		
104 (S-F)	510060	STRUCTURAL CONCRETE, RETAINING WALL	CY	135		
105 (S-F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	76		
106 (S)	510526	MINOR CONCRETE (BACKFILL)	CY	8		
107 (S-F)	511064	FRACTURED RIB TEXTURE	SQFT	1,120		
108	511106	DRILL AND BOND DOWEL	LF	30,180		
109	511109	DRILL AND BOND DOWEL (EPOXY CARTRIDGE)	EA	44		
110 (S)	046828	PRECAST ABUTMENT CAP BEAM	EA	2		
111 (S)	515010	INSTALL STUD CONNECTORS	EA	4,899		
112 (S)	515063	CORE CONCRETE (4")	LF	470		
113 (S)	515064	CORE CONCRETE (5")	LF	200		
114 (S)	515065	CORE CONCRETE (6")	LF	1,170		
115 (S)	515066	CORE CONCRETE (7")	LF	300		
116 (S)	046830	CORE CONCRETE (2") & PRESSURE GROUT	LF	4,440		
117 (S)	046831	CORE CONCRETE (2 1/2") & PRESSURE GROUT	LF	5,770		
118 (S)	046832	CORE CONCRETE (3") AND PRESSURE GROUT	LF	40		
119 (S)	046833	CORE CONCRETE (4") & PRESSURE GROUT	LF	4,940		
120 (S)	046834	CORE CONCRETE (5") AND PRESSURE GROUT	LF	860		

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121 (S)	046835	ELASTOMERIC PAD	EA	16		
122 (S)	046836	SLIDING BEARING DEVICE	EA	4		
123 (S)	046837	PTFE SPHERICAL BEARING	EA	3		
124 (S)	519001	WATERSTOP	LF	10		
125 (S-F)	520102	BAR REINFORCING STEEL (BRIDGE)	LB	3,864,500		
126 (S-F)	520106	BAR REINFORCING STEEL (EPOXY COATED)	LB	7,440		
127 (S-F)	520110	BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	LB	1,085,000		
128 (F)	530100	SHOTCRETE	CY	526		
129 (F)	540050	SEAL CONCRETE SURFACE	SQFT	24,000		
130 (S-F)	550110	COLUMN CASING	LB	715,000		
131 (S)	046838	REPLACE BOLT	EA	32,952		
132 (S)	046839	REMOVE RIVET (2 PLY)	EA	2,584		
133 (S)	046840	REMOVE RIVET (> 2 PLY)	EA	2,400		
134 (F)	550203	FURNISH STRUCTURAL STEEL (BRIDGE)	LB	5,623,000		
135 (F)	550204	ERECT STRUCTURAL STEEL (BRIDGE)	LB	5,623,000		
136	562004	METAL (RAIL MOUNTED SIGN)	LB	200		
137	562007	ROADSIDE SIGN (METAL POST)	EA	5		
138	566011	ROADSIDE SIGN - ONE POST	EA	10		
139	566012	ROADSIDE SIGN - TWO POST	EA	4		
140	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	2		

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141	568007	INSTALL SIGN OVERLAY	SQFT	59		
142 (S)	046841	CLEAN AND PAINT STRUCTURAL STEEL (LOCATION A)	LS	LUMP SUM	LUMP SUM	
143 (S)	046842	CLEAN AND PAINT STRUCTURAL STEEL (LOCATION B)	LS	LUMP SUM	LUMP SUM	
144 (S)	046843	CLEAN AND PAINT STRUCTURAL STEEL (LOCATION C)	LS	LUMP SUM	LUMP SUM	
145 (S-F)	590135	SPOT BLAST CLEAN AND PAINT UNDERCOAT	SQFT	26,120		
146 (S)	597600	PREPARE AND PAINT CONCRETE	SQFT	960		
147	650010	12" REINFORCED CONCRETE PIPE	LF	490		
148	650014	18" REINFORCED CONCRETE PIPE	LF	990		
149	650026	36" REINFORCED CONCRETE PIPE	LF	240		
150	650034	48" REINFORCED CONCRETE PIPE	LF	180		
151	703509	6" WELDED STEEL PIPE (.134" THICK)	LF	70		
152	705204	18" CONCRETE FLARED END SECTION	EA	1		
153	707117	36" PRECAST CONCRETE PIPE INLET	LF	19		
154 (S)	011917	ABANDON SEWER	EA	6		
155 (S)	011918	ADJUST MANHOLE TO GRADE	EA	3		
156 (S)	011919	REMOVE SEWER MANHOLE	EA	1		
157	011920	4" CLAY SEWER PIPE	LF	40		
158 (S)	011327	4" CLAY SEWER PIPE IN DIP CASING	LF	5		
159 (S)	714034	8" CLAY SEWER PIPE	LF	150		
160 (S)	714038	18" CLAY SEWER PIPE	LF	150		

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
161 (S)	714039	21" CLAY SEWER PIPE	LF	230		
162 (S)	719200	SEWER MANHOLE	EA	5		
163 (S)	721410	CONCRETE (GUTTER LINING)	CY	6		
164	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	390		
165 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	LB	9,131		
166 (S-F)	750498	MISCELLANEOUS METAL (RESTRAINER - CABLE TYPE)	LB	131,900		
167 (S-F)	750499	MISCELLANEOUS METAL (RESTRAINER - ROD TYPE)	LB	7,100		
168 (S-F)	750501	MISCELLANEOUS METAL (BRIDGE)	LB	23,100		
169	011921	MISCELLANEOUS METAL (PIPE SUPPORT DETAIL 1)	EA	58		
170	011922	MISCELLANEOUS METAL (PIPE SUPPORT DETAIL 2)	EA	58		
171	011923	MISCELLANEOUS METAL (PIPE SUPPORT DETAIL 3)	EA	2		
172	011924	MISCELLANEOUS METAL (PIPE SUPPORT DETAIL 4)	EA	1		
173	011925	MISCELLANEOUS METAL (PIPE SUPPORT DETAIL 5)	EA	1		
174	011926	MISCELLANEOUS METAL (PIPE SUPPORT DETAIL 6)	EA	1		
175	011927	MISCELLANEOUS METAL (PIPE SUPPORT DETAIL 11)	EA	1		
176 (S)	011938	SHOCK TRANSMISSION DEVICE	EA	6		
177 (S-F)	800302	CHAIN LINK FENCE (TYPE CL-3, VINYL-CLAD)	LF	156		
178 (S)	800363	CHAIN LINK FENCE (TYPE CL-6, EXTENSION ARM)	LF	580		
179	011329	24' CHAIN LINK GATE (TYPE CL-6,EXTENSION ARM)	EA	2		
180	820141	OBJECT MARKER (TYPE K-1)	EA	1		

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
181	820153	OBJECT MARKER (TYPE L-3)	EA	7		
182	832003	METAL BEAM GUARD RAILING (WOOD POST)	LF	150		
183	833080	CONCRETE BARRIER (TYPE K)	LF	2,240		
184 (S)	839311	DOUBLE THRIE BEAM BARRIER (WOOD POST)	LF	31		
185 (S-F)	839313	DOUBLE THRIE BEAM BARRIER (BRIDGE)	LF	31		
186	839523	BARRIER POST	EA	160		
187	839532	CABLE ANCHOR ASSEMBLY (BREAKAWAY, TYPE B)	EA	2		
188	011928	ANCHOR ASSEMBLY (BREAKAWAY, TYPE M)	EA	2		
189 (S)	839547	TERMINAL CONNECTOR (THRIE BEAM BARRIER)	EA	2		
190 (S)	011929	TERMINAL SECTION (TYPE M)	EA	2		
191 (S)	840504	4" THERMOPLASTIC TRAFFIC STRIPE	LF	29,100		
192 (S)	840506	8" THERMOPLASTIC TRAFFIC STRIPE	LF	2,850		
193 (S)	840508	8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)	LF	5,240		
194 (S)	840515	THERMOPLASTIC PAVEMENT MARKING	SQFT	1,120		
195 (S)	840656	PAINT TRAFFIC STRIPE (2-COAT)	LF	37,300		
196 (S)	840666	PAINT PAVEMENT MARKING (2-COAT)	SQFT	950		
197 (S)	850101	PAVEMENT MARKER (NON-REFLECTIVE)	EA	5,620		
198 (S)	850102	PAVEMENT MARKER (REFLECTIVE)	EA	3,270		
199 (S)	011330	TRAFFIC OPERATIONS SYSTEM (MODIFY)	LS	LUMP SUM	LUMP SUM	
200 (S)	011331	SIGNAL AND LIGHTING (STAGE CONSTRUCTION- LOCATION 1)	LS	LUMP SUM	LUMP SUM	

COPY OF ENGINEER'S ESTIMATE
(NOT TO BE USED FOR BIDDING PURPOSES)
04-043934

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
201 (S)	011332	SIGNAL AND LIGHTING (STAGE CONSTRUCTION- LOCATION 2)	LS	LUMP SUM	LUMP SUM	
202 (S)	861504	MODIFY LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
203 (S)	047001	SEISMIC MONITORING SYSTEM	LS	LUMP SUM	LUMP SUM	
204	046846	INSTALL SEISMIC MONITORING CASING (DOWNHOLE)	LF	225		
205	011914	TIME RELATED OVERHEAD	WDAY	400		
206	011915	TRANSPORTATION FOR THE ENGINEER	LS	LUMP SUM	LUMP SUM	
207	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISIONS

Annexed to Contract No. 04-043934

SECTION 1. SPECIFICATIONS AND PLANS

The work embraced herein shall be done in accordance with the Standard Specifications dated July, 1992, and the Standard Plans dated July, 1992, of the Department of Transportation insofar as the same may apply and in accordance with the following special provisions.

In case of conflict between the Standard Specifications and these special provisions, the special provisions shall take precedence over and be used in lieu of such conflicting portions.

SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS

2-1.01 GENERAL

The bidder's attention is directed to the provisions in Section 2, "Proposal Requirements and Conditions," of the Standard Specifications and these special provisions for the requirements and conditions which he must observe in the preparation of the proposal form and the submission of the bid.

In addition to the subcontractors required to be listed in accordance with Section 2-1.054, "Required Listing of Proposed Subcontractors," of the Standard Specifications, each proposal shall have listed therein the name and address of each MBE, WBE and DVBE subcontractor to be used for credit in meeting the goals, and to whom the bidder proposes to directly subcontract portions of the work. The list of subcontractors shall also set forth the portion of work that will be done by each subcontractor listed. A sheet for listing the subcontractors is included in the Proposal.

The form of Bidder's Bond mentioned in the last paragraph in Section 2-1.07, "Proposal Guaranty," of the Standard Specifications will be found following the signature page of the Proposal.

If the Bidder submits cash or a cashier's check or a certified check as the form of bidder's security (See said Section 2-1.07 of the Standard Specifications), the Bidder shall also include with the bid submittal a signed and notarized affidavit from an admitted surety insurer that contract bonds, as required by Section 3-1.02, "Contract Bonds," of the Standard Specifications, will be provided within the time specified elsewhere in these special provisions for executing and returning the contract for approval.

In accordance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Proposal. Signing the Proposal shall also constitute signature of the Noncollusion Affidavit.

If the bidder claims a mistake was made in his bid, the bidder shall give the Department written notice within 48-hours, not including Saturdays, Sundays and legal holidays, after the opening of bids of the alleged mistake, in lieu of the 5 days specified in Section 2-1.095, "Relief of Bidders," in the Standard Specifications. The notice of alleged mistake shall specify in detail how the mistake occurred.

2-1.02 MINORITY BUSINESS ENTERPRISE (MBE), WOMEN BUSINESS ENTERPRISE (WBE) AND DISABLED VETERAN BUSINESS ENTERPRISE (DVBE)

Section 10115 of the Public Contract Code requires the Department to implement provisions to establish goals for Minority Business Enterprise (MBE), Women Business Enterprise (WBE) and Disabled Veterans Business Enterprise (DVBE) in contracts.

It is the policy of the Department that Minority Business Enterprise (MBE), Women Business Enterprise (WBE) and Disabled Veteran Business Enterprise (DVBE) shall have the maximum opportunity to participate in the performance of contracts financed solely with state funds. The Contractor shall ensure that MBEs**,** WBEs and DVBEs have the maximum opportunity to participate in the performance of this contract and shall take all necessary and reasonable steps for such assurance. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of subcontracts. Failure to carry out the requirements of this paragraph shall constitute a breach of contract and may result in termination of this contract or such other remedy the Department may deem appropriate.

Bidder's attention is directed to the following matters:

(a) "Minority Business Enterprise" means a business concern that meets all of the following criteria:

(1) The business is an individual proprietorship, partnership, corporation, or joint venture at least 51 percent owned by one or more minorities or, in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more minorities;

(2) A business whose management and daily operations are controlled by one or more minorities who own the business;

(3) A business concern with its home office located in the United States which is not a branch or subsidiary of a foreign corporation, firm, or other business.

(b) "Women Business Enterprise" means a business concern that meets all of the following criteria:

(1) The business is an individual proprietorship, partnership, corporation, or joint venture at least 51 percent owned by one or more women or, in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more women;

(2) A business whose management and daily operations are controlled by one or more women who own the business;

(3) A business concern with its home office located in the United States which is not a branch or subsidiary of a foreign corporation, firm, or other business.

(c) "Disabled Veteran Business Enterprise" means a business concern certified by the Office of Small and Minority Business as meeting all of the following:

(1) A sole proprietorship owned by one or more disabled veterans, or in the case of a publicly owned business, at least 51 percent of its stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation, but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans: or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans;

(2) The management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business concern;

(3) A sole proprietorship, corporation, or partnership with its home office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other business.

(d) "Minority" means a citizen or lawful permanent resident of the United States who is an ethnic person of color and who is: Black (a person having origins in any of the Black racial groups of Africa); Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish or Portuguese culture or origin regardless of race); Native American (an American Indian, Eskimo, Aleut, or Native Hawaiian); Pacific-Asian (a person whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, or the United States Trust Territories of the Pacific including the Northern Marianas); Asian-Indian (a person whose origins are from India, Pakistan, or Bangladesh);

(e) "Disabled Veteran" means a veteran of military, naval or air services of the United States with at least 10 percent service-connected disability who is a resident of the State of California;

(f) An MBE or WBE bidder, not bidding as a joint venture with a non-MBE or non-WBE, will be required to meet the MBE and WBE goals through subcontracting or material purchases or make good faith effort to do so;

(g) A DVBE bidder will be required to meet the DVBE goal by using other DVBEs;

(h) An MBE, WBE or DVBE may participate as a subcontractor, joint venture partner with a prime or subcontractor, or vendor of material or supplies;

(i) An MBE, WBE or DVBE joint venture partner must be responsible for specific contract items of work, or portions thereof. Responsibility means actually performing, managing and supervising the work with its own forces. The MBE, WBE or DVBE joint venture partner must share in the ownership, control, management responsibilities, risks and profits of the joint venture. The MBE or WBE joint venturer must submit the joint venture agreement, and California Department of Transportation Business Enterprise Program form entitled "Minority/Disadvantaged/Women Business Enterprise Joint Venture." This information must be submitted with the MBE/WBE/DVBE Information form required in "Section 2-1.04" elsewhere in these special provisions;

(j) An MBE, WBE or DVBE must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work;

(k) Credit for MBE, WBE and DVBE vendors of materials or supplies is limited to 60 percent of the amount to be paid to the vendor for the material unless the vendor manufactures or substantially alters the goods;

(l) Credit for trucking by MBEs, WBEs and DVBEs will be as follows:

(1) One hundred percent of the amount to be paid when an MBE, WBE or DVBE trucker will perform the trucking with his/her own trucks, tractors and employees;

(2) Twenty percent of the amount to be paid to MBE, WBE and DVBE trucking brokers who do not have a "certified roster";

(3) One hundred percent of the amount to be paid to MBE, WBE and DVBE trucking brokers who have:

a. signed agreements that all trucking will be performed by MBE, WBE or DVBE truckers if credit is toward MBE and WBE goal, or DVBE goal;

b. a "certified roster" showing that all trucks are owned by certified MBEs, WBEs or DVBEs; and

c. a signed statement on the "certified roster" that indicates that 100 percent of revenue paid by the broker will be paid to the MBEs, WBEs or DVBEs listed on the "certified roster".

(4) Twenty percent of the amount to be paid to trucking brokers who are not an MBE, WBE or DVBE but who have:

a. signed agreements with MBE, WBE or DVBE truckers assuring that at least 20 percent of the trucking will be performed by MBE, WBE or DVBE truckers if credit is toward MBE or WBE goal, or DVBE goal;

b. a "certified roster" showing that at least 20 percent of the number of trucks are owned by certified MBE, WBE or DVBE truckers; and

c. a signed statement on the "certified roster" that indicates that at least 20 percent of the revenue paid by the broker will be paid to the MBEs, WBEs or DVBEs listed on the "certified roster".

The "certified roster" referred to herein shall conform to the requirements in Section 3-1.01A, "MBE/WBE/DVBE Information," of these special provisions;

(m) MBEs, WBEs and MBE and WBE joint venture partners, must be certified as of the date of bid opening either by the California Department of Transportation, or by a participating State of California or local agency which certifies in accordance with Title 49, Code of Federal Regulations, Part 23. Listings of MBEs and WBEs certified by the Department are available from the following sources:

(i) The Department's DB/WBE Directory which is published quarterly. The DB/WBE Directory may be obtained from the Department of Transportation, Publications Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520. An order form is available on the Internet at www.dot.ca.gov/hq/purchase/publicat.htm;

(ii) The Department's Electronic Information Bulletin Board Service (DB/WBE/BBS), which is accessible by modem and is updated weekly. The DB/WBE/BBS may be accessed by first contacting the Department's Business Enterprise Program at Telephone: (916) 227-8937 and obtaining a user identification and password;

It is the Contractor's responsibility to verify that MBEs and WBEs are certified;

(n) DVBEs and DVBE joint venture partners must be certified DVBEs as determined by the Department of General Services, Office of Small and Minority Business, 1531 "I" Street, Second Floor, Sacramento, CA 95814, on the date bids for the project are opened before credit may be allowed toward the DVBE goal.

It is the Contractor's responsibility to verify that DVBEs are certified;

(o) Noncompliance by the Contractor with these requirements constitutes a breach of this contract and may result in termination of the contract or other appropriate remedy for such breach.

2-1.03 MBE/WBE/DVBE GOALS FOR THIS PROJECT

The Department has established the following combined goal for Minority Business Enterprise (MBE), Women Business Enterprise (WBE) participation and Disabled Veteran Business Enterprise (DVBE) participation for this project:

Combined MBE/WBE/DVBE goal, 20 percent.

It is the bidder's responsibility to make a sufficient portion of the work available to subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE, WBE and DVBE subcontractors and suppliers, so as to assure meeting the goals for MBE/WBE/DVBE participation.

The Department's Business Enterprise Program may be contacted at (916) 227-9599 for program information and certification status.

2-1.04 SUBMISSION OF MBE/WBE/DVBE INFORMATION

The required MBE, WBE and DVBE information shall be submitted **WITH THE BID** on the following "CALTRANS BIDDER - MBE/WBE/DVBE - INFORMATION" and "TELEPHONE LOG AND LIST OF REJECTED MBEs/WBEs/DVBEs."

It is the bidder's responsibility to meet the goals for MBE, WBE and DVBE participation or to establish that, prior to bidding, the bidder made good faith efforts to do so based on the information in the "CALTRANS BIDDER - MBE/WBE/DVBE - INFORMATION" and "TELEPHONE LOG AND LIST OF REJECTED MBEs/WBEs/DVBEs."

The information to show that the MBE/WBE/DVBE goals will be met on the "CALTRANS BIDDER - MBE/WBE/DVBE - INFORMATION" form shall include the names of MBEs, WBEs, DVBEs and MBE, WBE and DVBE joint venture partners to be used, with a complete description of work or supplies to be provided by each and the dollar value of each such MBE, WBE or DVBE transaction. When 100 percent of a contract item of work is not to be performed or furnished by an MBE, WBE or DVBE, a description of the exact portion of said work to be performed or furnished by that MBE, WBE or DVBE shall be included in the MBE/WBE/DVBE information, including the planned location of said work. (Note: MBE, WBE and DVBE subcontractors to whom the bidder proposes to directly subcontract portions of the work are to be named in the bid. - See Section 2-1.054, "Required Listing of Proposed Subcontractors," of the Standard Specifications and Section 2-1.01, "General," of these special provisions, regarding listing of proposed subcontractors).

A DVBE who is also an MBE or WBE will receive credit for DVBE and MBE goals or DVBE and WBE goals, as the case may be.

If credit for trucking by an MBE, WBE or DVBE trucking broker is shown on the bidder's information as 100 percent of the revenue to be paid by the broker is to be paid to MBE, WBE and DVBE truckers, a "certified roster" of the broker's trucks to be used must be included with the bid. The "certified roster" must indicate that all the trucks are owned by certified MBEs, WBEs and DVBEs and must show the MBE, WBE and DVBE truck numbers, owner's name, Public Utilities Commission Cal-T numbers, and the MBE, WBE and DVBE certification numbers. The roster must indicate that all revenue paid by the broker will be paid to MBEs, WBEs and DVBEs listed on the "certified roster".

If credit for trucking by a trucking broker who is not an MBE, WBE or DVBE is shown in the bidder's information, a "certified roster" of the broker's trucks to be used must be included with the bid. The "certified roster" must indicate that at least 20 percent of the broker's trucks are owned by certified MBEs, WBEs and DVBEs and must show the MBE, WBE and DVBE truck numbers, owner's name, Public Utilities Commission Cal-T numbers, and the MBE, WBE and DVBE certification numbers. The roster must indicate that at least 20 percent of the revenue paid by the broker will be paid to MBEs, WBEs and DVBEs listed on the "certified roster".

Information necessary to establish the bidder's good faith efforts to meet the MBE, WBE and DVBE goals shall be included in the "TELEPHONE LOG AND LIST OF REJECTED MBEs/WBEs/DVBEs" form located in the Proposal and shall include:

1. The names, dates and times of notices of all certified MBEs, WBEs and DVBEs solicited by telephone for this project and the dates, times and methods used for following up initial solicitations to determine with certainty whether the MBEs, WBEs and DVBEs were interested.

2. The names of MBEs, WBEs and DVBEs who submitted bids which were not accepted and the reason for rejection of the MBE's, WBE's or DVBEs bid.

Bidders are cautioned that even though their submittal indicates they will meet the stated MBE, WBE and DVBE goals, their submittal should also include the telephone log and rejected MBE, WBE and DVBE information to protect their eligibility for award of the contract in the event the Department, in its review, finds that the goals have not been met.

It is the bidders responsibility to be available, by phone, both the day of and the day after the bid opening to answer questions and provide good faith effort clarification. The bidder shall also assure that listed MBEs, WBEs and DVBEs are available, by phone, on both days.

If it is found that the goal has not been met, the Department will review the information submitted with the bid to determine the bidder’s good faith effort. In the event that the Department determines that a bidder has not made a good faith effort based on the information submitted with the bid and its independent investigation, the Department’s decision will be final.

2-1.05 SMALL BUSINESS PREFERENCE

Attention is directed to "Award and Execution of Contract" elsewhere in these special provisions.

Attention is also directed to the Small Business Procurement and Contract Act, Government Code Section 14835, et seq and Title 2, California Code of Regulations, Section 1896, et seq.

Bidders who wish to be classified as a Small Business under the provisions of said laws and regulations, shall be certified as Small Business by the Department of General Services, Office of Small and Minority Business, 1531 "I" Street, Second Floor, Sacramento, CA 95814.

To request Small Business Preference, bidders shall fill out and sign the Request for Small Business Preference form in the Proposal and shall attach a copy of their Office of Small and Minority Business (OSMB) small business certification letter to the form. The bidder's signature on the Request for Small Business Preference certifies, under penalty of perjury, that the bidder is certified as Small Business at the time of bid opening and further certifies, under penalty of perjury, that under the following conditions, at least 50 percent of the subcontractors to be utilized on the project are either certified Small Business or have applied for Small Business certification by bid opening date and are subsequently granted Small Business certification.

The conditions requiring the aforementioned 50 percent level of subcontracting by Small Business subcontractors apply if:

1. The lowest responsible bid for the project exceeds $100,000; and

2. The project work to be performed requires a Class A or a Class B contractor's license; and

3. Two or more subcontractors will be used.

If the above conditions apply and Small Business Preference is granted in the award of the contract, the 50 percent Small Business subcontractor utilization level shall be maintained throughout the life of the contract.

2-1.06 CALIFORNIA COMPANY PREFERENCE

Attention is directed to "Award and Execution of Contract" of these special provisions.

In accordance with the requirements of Section 6107 of the Public Contract Code, a "California company" will be granted a reciprocal preference for bid comparison purposes as against a nonresident contractor from any state that gives or requires a preference to be given contractors from that state on its public entity construction contracts.

A "California company" means a sole proprietorship, partnership, joint venture, corporation, or other business entity that was a licensed California contractor on the date when bids for the public contract were opened and meets one of the following:

(1) Has its principal place of business in California.

(2) Has its principal place of business in a state in which there is no local contractor preference on construction contracts.

(3) Has its principal place of business in a state in which there is a local contractor construction preference and the contractor has paid not less than $5000 in sales or use taxes to California for construction related activity for each of the five years immediately preceding the submission of the bid.

To carry out the "California company" reciprocal preference requirements of Section 6107 of the Public Contract Code, all bidders shall fill out and sign the California Company Preference form in the Proposal. The bidder's signature on the California Company Preference form certifies, under penalty of perjury, that the bidder is or is not a "California company" and if not, the amount of the preference applied by the state of the nonresident Contractor.

A nonresident Contractor shall disclose any and all bid preferences provided to the nonresident Contractor by the state or country in which the nonresident Contractor has its principal place of business.

Proposals without the California Company Preference form filled out and signed may be rejected.

2-1.07 BRIDGE SEISMIC RETROFIT INFORMATION/QUESTIONNAIRE

The Department has established the need to obtain information regarding each bidder's qualifications for performing bridge seismic retrofit work contracts.

Bidders shall submit responses to the "Bridge Seismic Retrofit Information/Questionnaire" included in the Proposal. The responses to the Questionnaire shall be submitted with the bid.

In signing the signature page of the Proposal, the bidder certifies that the information and answers on the "Bridge Seismic Retrofit Information/Questionnaire" are complete and accurate.

SECTION 3. PRE-AWARD MEETING AND AWARD AND EXECUTION OF CONTRACT

3-1.01 GENERAL

The bidder’s attention is directed to the provisions in Section 3, “Award and Execution of Contract,” of the Standard Specifications, and these special provisions for the requirements and conditions concerning the pre-award meeting and the award and execution of contract.

3-1.01A PRE-AWARD MEETING.--Bidders are advised that on January 29, 1998 at 10:00 a.m., in the third floor conference room, 1727 - 30th Street, Sacramento, CA 95816, the apparent low bidder shall participate in a pre-award qualifications review meeting conducted by an agent of the Director. Non-attendance to the qualifications review meeting by the apparent low bidder shall be just cause for rejection of the bid and forfeiture of the proposal guaranty. At the qualifications review meeting, the low bidder shall be prepared to discuss and answer questions relative to the responses to the "Bridge Seismic Retrofit Information/Questionnaire" submitted with the bid. The Director’s agent will prepare written findings and recommendations to the Engineer regarding award of the contract to the apparent low bidder based on the bridge seismic retrofit information and responses submitted with the bid, and on the information provided at the qualifications review meeting. The Engineer’s determination on the bidder's qualifications for performing bridge seismic retrofit work, in a manner that is safe for the workers and the public, will be based on the bidder's experience, qualifications of on-site supervisory personnel, equipment, conceptual approach to the bridge seismic retrofit work and safety history of the bidder and its supervisory personnel. The decision of the Engineer regarding the bidder's qualifications shall be final.

The second and third apparent low bidders shall participate in pre-award qualifications review meetings if requested to do so by the Department. Notification by the Department will be within 7 days after the bid opening, and will be provided at least 12 hours prior to the qualifications review meeting.

Non-attendance by the second or third apparent low bidder at any such requested meeting shall be just cause for rejection of bid and forfeiture of the proposal guaranty.

3-1.01B AWARD AND EXECUTION OF CONTRACT.--The award of contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed and who has met the goal for MBE/WBE/DVBE participation or has demonstrated, to the satisfaction of the Department, good faith effort to do so and who has established to the satisfaction of the Engineer, the qualifications and ability to complete the seismic retrofit work on this project in a safe and timely manner. Meeting the goal for MBE/WBE/DVBE participation or demonstrating, to the satisfaction of the Department, good faith efforts to do so and establishing the qualifications and ability to complete the seismic retrofit work are conditions for being eligible for award of contract.

It is anticipated that this contract will be awarded within 10 days after the bid opening.

Each of the two bonds required in Section 3-1.02, "Contract Bonds," of the Standard Specifications shall be in a sum equal to 100 percent of the contract price.

The sucessful bidder shall furnish a sewer performance bond prior to installation or modification of sanitary sewers and appurtenances. This bond shall be in the sum equal to the contract price of the sewer work. The bond form will be furnished to the successful bidder by the Department. Attention is directed to "Sanitary Sewers" elsewhere in these special provisions.

The contract shall be signed by the successful bidder and shall be received with contract bonds by the Department within **4 days**, including Saturdays, Sundays and legal holidays, after the bidder has received notice that the contract has been awarded. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address: Department of Transportation, P.O. Box 942874, Sacramento, CA 94274-0001, Attn: Office Engineer (MS 43)- Contracts.

Within 2 days, not including Saturdays, Sundays and legal holidays, of return of the executed contract and bonds, the Department will notify the successful bidder of either approval of the contract by the Attorney General or the attorney appointed and authorized to represent the Department of Transportation, or disapproval of the submittal. Should the Department fail to provide notification within said 2 days, the delay will be considered a right of way delay as specified in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

A "Vendor Data Record" form will be included in the contract documents to be executed by the successful bidder. The purpose of the form is to facilitate the collection of taxpayer identification data. The form shall be completed and returned to the Department by the successful bidder with the executed contract and contract bonds. For the purposes of the form, vendor shall be deemed to mean the successful bidder. The form is not to be completed for subcontractors or suppliers. Failure to complete and return the "Vendor Data Record" form to the Department as provided herein will result in the retention of 20 percent of payments due the contractor and penalties of up to $20,000. This retention of payments for failure to complete the "Vendor Data Record" form is in addition to any other retention of payments due the Contractor.

Attention is also directed to "Small Business Preference" of these special provisions. Any bidder who is certified as a Small Business by the Department of General Services, Office of Small and Minority Business will be allowed a preference in the award of this contract, if it be awarded, under the following conditions:

(1) The apparent low bidder is not certified as a Small Business, or has not filled out and signed the Request for Small Business Preference included with the bid documents and attached a copy of their Office of Small and Minority Business (OSMB) small business certification letter to the form; and

(2) The bidder filled out and signed the Request for Small Business Preference form included with the bid documents and attached a copy of their Office of Small and Minority Business (OSMB) small business certification letter to the form.

The small business preference will be a reduction in the bid submitted by the small business contractor, for bid comparison purposes, by an amount equal to 5 percent of the amount bid by the apparent low bidder, said amount not to exceed $50,000. If such reduction results in the small business contractor becoming the low bidder, then the contract will be awarded to said small business contractor on the basis of the actual bid of the small business contractor notwithstanding the reduced bid price used for bid comparison purposes.

Attention is also directed to "California Company Preference" of these special provisions.

The amount of the California company reciprocal preference shall be equal to the amount of the preference applied by the state of the nonresident contractor with the lowest responsive bid, except where the "California company" is eligible for a California Small Business Preference, in which case the preference applied shall be the greater of the two, but not both.

If the bidder submitting the lowest responsive bid is not a "California company" and with the benefit of the reciprocal preference, a "California company's" responsive bid is equal to or less than the original lowest responsive bid, the "California company" will be awarded the contract at its submitted bid price except as provided below.

Small business bidders shall have precedence over nonsmall business bidders in that the application of the "California company" preference for which nonsmall business bidders may be eligible shall not result in the denial of the award to a small business bidder.

SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

Attention is directed to the provisions in Section 8-1.03, "Beginning of Work," in Section 8-1.06, "Time of Completion," and in Section 8-1.07, "Liquidated Damages," of the Standard Specifications and these special provisions.

The Contractor shall begin work within 5 calendar days after the contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department of Transportation.

Said work shall be diligently prosecuted to completion before the expiration of

400 WORKING DAYS

beginning at 12:01 a.m. on the **FIRST WORKING DAY AFTER CONTRACT AWARD**.

The Contractor shall pay to the State of California the sum of $6000 per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

The 72 hours advance notice before beginning work as referred to in said Section 8-1.03 is changed to 24 hours advance notice for this project.

A working day as defined in said Section 8-1.06 is re-defined for this project. Paragraph 2 through paragraph 5, inclusive, of said Section 8-1.06 shall not apply. Saturdays, Sundays and legal holidays, including days of inclement weather, will be counted as working days.

The time limit specified for the completion of the work contemplated herein is considered insufficient to permit completion of the work by the Contractor working a normal number of hours per day or week on a single shift basis. Should the Contractor fail to maintain the progress of the work in accordance with the "Progress Schedule" required in these special provisions, additional shifts will be required to the extent necessary to ensure that the progress conforms to the abovementioned schedule and that the work will be completed within the time limit specified.

Full compensation for any additional costs occasioned by compliance with the provisions in this section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

Attention is directed to “Maintaining Traffic” elsewhere in these special provisions regarding additional liquidated damages.

The State shall have the right to shut down Contractor’s operation, at any time, for maximum of 20 working days over the life of the contract. These closures are intended to be used only for enhancement of travel by the public under conditions such as higher than anticipated holiday traffic, or congestion resulting from unforeseen incidents such as accidents or hazardous materials spills on Bay Area highways. Costs for these closures are considered as included in the various items of work involved. In the event that the closures mentioned above exceed 20 working days and if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of these closures extending beyond 20 working days, the State will compensate the Contractor for such delays to the extent provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

SECTION 5. GENERAL

SECTION 5-1. MISCELLANEOUS

5-1.01 LABOR NONDISCRIMINATION

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM (GOV. CODE, SECTION 12990)

Your attention is called to the "Nondiscrimination Clause", set forth in Section 7-1.01A(4), "Labor Nondiscrimination," of the Standard Specifications, which is applicable to all nonexempt state contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The Specifications are applicable to all nonexempt state construction contracts and subcontracts of $5,000 or more.

5-1.02 PREVAILING WAGE

Attention is directed to Section 7-1.01A(2), "Prevailing Wage," of the Standard Specifications.

The general prevailing wage rates determined by the Director of Industrial Relations, for the county or counties in which the work is to be done, are available at the Labor Compliance Office at the offices of the District Director of Transportation for the district in which the work is situated. The wage rates are not included in the Proposal and Contract for the project. Changes, if any, to the general prevailing wage rates will be available at the same location.

5-1.03 CONTRACTOR'S LICENSING LAWS

The third paragraph of Section 7-1.01C, "Contractor's Licensing Laws," of the Standard Specifications is amended to read:

Attention is also directed to the provisions of Public Contract Code Section 10164. In all projects

where Federal funds are involved, the Contractor shall be properly licensed at the time the contract is awarded.

5-1.04 ARBITRATION

The last paragraph in Section 9-1.10, "Arbitration," of the Standard Specifications is amended to read.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said regulations. A Complaint in Arbitration by the Contractor shall be made not later than 180 days after the date of service in person or by mail on the Contractor of the final written decision by the Department on the claim.

5-1.05 NOTICE OF POTENTIAL CLAIM

Section 9-1.04, "Notice of Potential Claim," of the Standard Specifications is amended to read:

9-1.04 Notice of Potential Claim.—The Contractor shall not be entitled to the payment of any additional compensation for any act, or failure to act, by the Engineer, including failure or refusal to issue a change order, or for the happening of any event, thing, occurrence, or other cause, unless he shall have given the Engineer due written notice of potential claim as hereinafter specified. Compliance with this Section 9-1.04 shall not be a prerequisite as to matters within the scope of the protest provisions in Section 4-1.03, "Changes," or Section 8-1.06, "Time of Completion," or the notice provisions in Section 5-1.116, "Differing Site Conditions," or Section 8-1.07, "Liquidated Damages," or Section 8-1.10, "Utility and Non-Highway Facilities," nor to any claim which is based on differences in measurements or errors of computation as to contract quantities.

The written notice of potential claim shall be submitted to the Engineer prior to the time that the Contractor performs the work giving rise to the potential claim for additional compensation, if based on an act or failure to act by the Engineer, or in all other cases within 15 days after the happening of the event, thing, occurrence, or other cause, giving rise to the potential claim.

The written notice of potential claim shall be submitted on Form CEM-6201 furnished by the Department and shall be certified with reference to the California False Claims Act, Government Code Sections 12650 - 12655. The notice shall set forth the reasons for which the Contractor believes additional compensation will or may be due and the nature of the costs involved. Unless the amount of the potential claim has been stated in the written notice, the Contractor shall, within 15 days of submitting said notice, furnish an estimate of the cost of the affected work and impacts, if any, on project completion. Said estimate of costs may be changed or updated by the Contractor when conditions have changed. When the affected work is completed, the Contractor shall submit substantiation of his actual costs. Failure to do so shall be sufficient cause for denial of any claim subsequently filed on the basis of said notice of potential claim.

It is the intention of this Section 9-1.04 that differences between the parties arising under and by virtue of the contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that he shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was filed.

Should the Contractor, in connection with or subsequent to the assertion of a potential claim, request inspection and copying of documents or records in the possession of the Department that pertain to the potential claim, Contractor shall make its records of the project, as deemed by the Department to be pertinent to the potential claim, available to the Department for inspection and copying.

5-1.06 PARTIAL PAYMENTS

The last paragraph of Section 9-1.06, "Partial Payments," of the Standard Specifications is amended to read:

Attention is directed to the prohibitions and penalties pertaining to unlicensed contractors as provided in Business and Professions Code Sections 7028.15(a) and 7031.

5-1.07 PAYMENT OF WITHHELD FUNDS

Section 9-1.065, "Payment of Withheld Funds," of the Standard Specifications, is amended by adding the following after the third paragraph:

Alternatively, and subject to the approval of the Department, the payment of retentions earned may be deposited directly with a person licensed under Division 6 (commencing with Section 17000) of the Financial Code as the escrow agent. Upon written request of an escrow agent that has not been approved by the Department under subdivision (c) of Section 10263 of the Public Contract Code, the Department will provide written notice to that escrow agent within 10 business days of receipt of the request indicating the reason or reasons for not approving that escrow agent. The payments will be deposited in a trust account with a Federally chartered bank or savings association within 24 hours of receipt by the escrow agent. The Contractor shall not place any retentions with the escrow agent in excess of the coverage provided to that escrow agent pursuant to subdivision

(b) of Section 17314 of the Financial Code. In all respects not inconsistent with subdivision (c) of Section 10263 of the Public Contract Code, the remaining provisions of Section 10263 of the Public Contract Code shall apply to escrow agents acting pursuant to subdivision (c) of Section 10263 of the Public Contract Code. This paragraph shall not be applicable to payments deposited on or after January 1, 1997.

5-1.08 FINAL PAYMENT AND CLAIMS

Section 9-1.07B, "Final Payment and Claims," of the Standard Specifications is amended to read:

9-1.07B Final Payment and Claims.—After acceptance by the Director, the Engineer will make a proposed final estimate in writing of the total amount payable to the Contractor, including therein an itemization of said amount, segregated as to contract item quantities, extra work and any other basis for payment, and shall also show therein all deductions made or to be made for prior payments and amounts to be kept or retained under the provisions of the contract. All prior estimates and payments shall be subject to correction in the proposed final estimate. The Contractor shall submit written approval of the proposed final estimate or a written statement of all claims arising under or by virtue of the contract so that the Engineer receives such written approval or statement of claims no later than close of business of the thirtieth day after receiving the proposed final estimate. If the thirtieth day falls on a Saturday, Sunday or legal holiday, then receipt of such written approval or statement of claims by the Engineer shall not be later than close of business of the next business day. No claim will be considered that was not included in the written statement of claims, nor will any claim be allowed as to which a notice or protest is required under the provisions in Sections 4-1.03, "Changes," 8-1.06, "Time of Completion," 8-1.07, "Liquidated Damages," 5-1.116, "Differing Site Conditions," 8-1.10, "Utility and Non-Highway Facilities," and 9-1.04, "Notice of Potential Claim," unless the Contractor has complied with the notice or protest requirements in said sections.

On the Contractor's approval, or if he files no claim within said period of 30 days, the Engineer will issue a final estimate in writing in accordance with the proposed final estimate submitted to the Contractor and within 30 days thereafter the State will pay the entire sum so found to be due. Such final estimate and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefor, except as otherwise provided in Sections 9-1.03C, "Records," and 9-1.09, "Clerical Errors."

If the Contractor within said period of 30 days files claims, the Engineer will issue a semifinal estimate in accordance with the proposed final estimate submitted to the Contractor and within 30 days thereafter the State will pay the sum so found to be due. Such semifinal estimate and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefor, except insofar as affected by the claims filed within the time and in the manner required hereunder and except as otherwise provided in Sections 9-1.03C, "Records," and 9-1.09, "Clerical Errors."

Claims filed by the Contractor shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of said claims. If additional information or details are required by the Engineer to determine the basis and amount of said claims, the Contractor shall furnish such further information or details so that the information or details are received by the Engineer no later than the fifteenth day after receipt of the written request from the Engineer. If the fifteenth day falls on a Saturday, Sunday or legal holiday, then receipt of such information or details by the Engineer shall not be later than close of business of the next business day. Failure to submit such information and details to the Engineer within the time specified will be sufficient cause for denying the claim.

The Contractor shall keep full and complete records of the costs and additional time incurred for any work for which a claim for additional compensation is made. The Engineer or any designated claim investigator or auditor shall have access to those records and any other records as may be required by the Engineer to determine the facts or contentions involved in the claims. Failure to permit access to such records shall be sufficient cause for denying the claims.

Claims submitted by the Contractor shall be accompanied by a notarized certificate containing the following language:

> Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code Section 12650 et. seq., the undersigned,
>
> _____
>
> ,
>
> (name)
>
> _____ of
>
> (title)
>
> _____
>
> ,
>
> (company)
>
> hereby certifies that the claim for the additional compensation and time, if any, made herein for the work on this contract is a true statement of the actual costs incurred and time sought, and is

fully documented and supported under the contract between parties.

Dated _____

/s/

_____

Subscribed and sworn before me this _____ day

of _____.

_____
Notary Public
My Commission Expires _____

Failure to submit the notarized certificate will be sufficient cause for denying the claim.

Any claim for overhead type expenses or costs, in addition to being certified as stated above, shall be supported by an audit report of an independent Certified Public Accountant. Any such overhead claim shall also be subject to audit by the State at its discretion.

Any costs or expenses incurred by the State in reviewing or auditing any claims that are not supported by the Contractor's cost accounting or other records shall be deemed to be damages incurred by the State within the meaning of the California False Claims Act.

The District Director of the District which administers the contract will make the final determination of any claims which remain in dispute after completion of claim review by the Engineer. A board or person designated by said District Director will review such claims and make a written recommendation thereon to the District Director. The Contractor may meet with the review board or person to make a presentation in support of such claims.

Upon final determination of the claims, the Engineer will then make and issue his final estimate in writing and within 30 days thereafter the State will pay the entire sum, if any, found due thereon. Such final estimate shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefor, except as otherwise provided in Sections 9-1.03C, "Records," and 9-1.09, "Clerical Errors."

5-1.09 PUBLIC SAFETY

The Contractor shall provide for the safety of traffic and the public in accordance with the provisions in Section 7-1.09, "Public Safety," of the Standard Specifications and these special provisions.

The Contractor shall install temporary railing (Type K) between any lane carrying public traffic and any excavation, obstacle, or storage area when the following conditions exist:

(1) Excavations.--Any excavation, the near edge of which is 12 feet or less from the edge of the lane, except:

(a) Excavations covered with sheet steel or concrete covers of adequate thickness to prevent accidental entry by traffic or the public.
(b) Excavations less than one foot deep.
(c) Trenches less than one foot wide for irrigation pipe or electrical conduit, or excavations less than one foot in diameter.
(d) Excavations parallel to the lane for the purpose of pavement widening or reconstruction.
(e) Excavations in side slopes, where the slope is steeper than 4:1.
(f) Excavations protected by existing barrier or railing.

(2) Temporarily Unprotected Permanent Obstacles.--Whenever the work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with protective railing, and the Contractor elects to install the obstacle prior to installing the protective system; or whenever the Contractor, for his convenience and with permission of the Engineer, removes a portion of an existing protective railing at an obstacle and does not replace such railing complete in place during the same day.

(3) Storage Areas.--Whenever material or equipment is stored within 12 feet of the lane and such storage is not otherwise prohibited by the specifications.

The approach end of temporary railing (Type K), installed in accordance with the requirements in this section "Public Safety" and in Section 7-1.09, "Public Safety," of the Standard Specifications shall be offset a minimum of 15 feet from the edge of the traffic lane open to public traffic. The temporary railing shall be installed on a skew toward the edge of the traffic lane of not more than one foot transversely to 10 feet longitudinally with respect to the edge of the traffic lane. If the 15-foot minimum offset cannot be achieved, the temporary railing shall be installed on the 10 to 1 skew to obtain the maximum available offset between the approach end of the railing and the edge of the traffic lane, and an array of temporary crash cushion modules shall be installed at the approach end of the temporary railing.

Temporary railing (Type K) shall conform to the provisions in Section 12-3.08, "Temporary Railing (Type K)" of the Standard Specifications, except temporary railing (Type K) fabricated prior to January 1,

1993, with one longitudinal No. 5 reinforcing steel bar near the top in lieu of the 2 longitudinal No. 5 reinforcing steel bars near the top, as shown on the plans, may be used.

Temporary crash cushion modules shall conform to the provisions in "Temporary Crash Cushion Module" elsewhere in these special provisions.

Except for installing, maintaining and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas the Contractor shall close the adjacent traffic lane unless otherwise provided in the specifications:

Approach speed of public traffic (Posted Limit) (Miles Per Hour)	Work Areas
Over 45	Within 6 feet of a traffic lane but not on a traffic lane.
35 to 45	Within 3 feet of a traffic lane but not on a traffic lane.

The lane closure provisions of this section shall not apply if the work area is protected by permanent or temporary railing or barrier.

When traffic cones or delineators are used to delineate a temporary edge of traffic lane, the line of cones or delineators shall be considered to be the edge of traffic lane, however, the Contractor shall not reduce the width of an existing lane to less than 10 feet without written approval from the Engineer.

When work is not in progress on a trench or other excavation that required closure of an adjacent lane, the traffic cones or portable delineators used for the lane closure shall be placed off of and adjacent to the edge of the traveled way. The spacing of the cones or delineators shall be not more than the spacing used for the lane closure.

Suspended loads or equipment shall not be moved nor positioned over public traffic or pedestrians.

Full compensation for conforming to the requirements in this section "Public Safety," including furnishing and installing temporary railing (Type K) and temporary crash cushion modules, shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

5-1.10 SURFACE MINING AND RECLAMATION ACT

Attention is directed to the Surface Mining and Reclamation Act of 1975, commencing in Public Resources Code, Mining and Geology, Section 2710, which establishes regulations pertinent to surface mining operations.

Material from mining operations furnished for this project shall only come from permitted sites in compliance with the Surface Mining and Reclamation Act of 1975.

The requirements of this section shall apply to all materials furnished for the project, except for acquisition of materials in conformance with Section 4-1.05, "Use of Materials Found on the Work," of the Standard Specifications.

5-1.11 REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe, and shall immediately cease work in the affected area and report the condition to the Engineer in writing. If the Contractor believes the situation is life threatening, the Contractor shall immediately evacuate the area and contact the local Fire Department.

In accordance with Section 25914.1 of the Health and Safety Code, all such removal of asbestos or hazardous substances including any exploratory work to identify and determine the extent of such asbestos or hazardous substance will be performed by separate contract.

WASTE DUE TO CONTRACTOR'S OPERATIONS.--The Contractor shall bear full and exclusive responsibility for any release of hazardous or nonhazardous chemicals or substances during the course of performance of his work. The Contractor shall immediately report any such release to the Engineer. The Contractor shall be solely responsible for all claims and expenses associated with the response to, removal and remediation of the release, including, without limit, payment of any fines or penalties levied against the State by any agency as a result of such release and shall hold harmless, indemnify and defend the State from any claims arising from such release.

For purposes of this section only, the term "claims" shall include:

(i) all notices, orders, directives, administrative or judicial proceedings, fines, penalties, fees or charges imposed by any governmental agency with jurisdiction, and.

(ii) any claim, cause of action, or administrative or judicial proceeding brought against the State, its directors, or employees, or for any loss, cost (including reasonable attorney's fees), damage or liability, sustained or suffered by any person or entity, including the State.

If during the Contractor's performance of the work outlined by these contract specifications, the Contractor creates any hazardous wastes, those wastes shall be properly disposed of according to federal, state and local

laws, at the expense of the Contractor. The Contractor shall dispose of the wastes under its own EPA Generator Number. In no event shall the State be identified as the generator. The Contractor shall notify the Engineer of any such hazardous wastes and the State reserves the right to a copy of any tests conducted on the wastes and, at its cost, to perform additional tests or examine those wastes, prior to its disposition. The Contractor shall hold harmless, indemnify and defend the State from any claims arising from the disposal of the hazardous wastes, regardless of the absence of negligence or other malfeasance by the Contractor.

No contaminated water or concrete waste shall be discharged into the City of Vallejo or the City of Crockett's inlets. Containment basins shall be used to settle all contaminates before the water is discharged into the City's drainage system.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for such delay as provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

5-1.12 FINAL PAY QUANTITIES

Section 9-1.015, "Final Pay Quantities," of the Standard Specifications is amended to read:

9-1.015 Final Pay Items.—When an item of work is designated as (F) or (S-F) in the Engineer's Estimate, the estimated quantity for that item of work shall be the final pay quantity, unless the dimensions of any portion of that item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in an increase or decrease in the estimated quantity of that item of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions, except as otherwise provided for minor structures in Section 51-1.22, "Measurement." If a final pay item is eliminated, the estimated quantity for the item will be eliminated. If a portion of a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.

The estimated quantity for each item of work designated as (F) or (S-F) in the Engineer's Estimate shall be considered as approximate only, and no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the plans, will equal the estimated quantity. No allowance will be made in the event that the quantity based on computations does not equal the estimated quantity.

In case of discrepancy between the quantity shown in the Engineer's Estimate for a final pay item and the quantity or summation of quantities for the same item shown on the plans, payment will be based on the quantity shown in the Engineer's Estimate.

5-1.13 MBE, WBE AND DVBE RECORDS

The Contractor shall maintain records of all subcontracts entered into with certified MBE, WBE or DVBE subcontractors and records of materials purchased from certified MBE, WBE or DVBE suppliers. Such records shall show the name and business address of each MBE, WBE or DVBE subcontractor or vendor and the total dollar amount actually paid each MBE, WBE or DVBE subcontractor or vendor.

Upon completion of the contract, a summary of these records shall be prepared on Form CEM-2402 and certified correct by the Contractor or his authorized representative, and shall be furnished to the Engineer.

5-1.14 PERFORMANCE OF MBE, WBE AND DVBE SUBCONTRACTORS AND SUPPLIERS

The MBEs, WBEs and DVBEs listed by the Contractor in response to the requirements in Section 2-1.04, "Submission of MBE/WBE/DVBE Information," in these special provisions, which are determined by the Department to be certified MBEs, WBEs or DVBEs, shall perform the work and supply the materials for which they are listed unless the Contractor has received prior written authorization to perform the work with other forces or to obtain the materials from other sources.

Authorization to utilize other forces or sources of materials may be requested for the following reasons:

(1) The listed MBE, WBE or DVBE, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract, when such written contract, based upon the general terms, conditions, plans and specifications for the project, or on the terms of such subcontractor's or supplier's written bid, is presented by the Contractor.

(2) The listed MBE, WBE or DVBE becomes bankrupt or insolvent.

(3) The listed MBE, WBE or DVBE fails or refuses to perform his subcontract or furnish the listed materials.

(4) The Contractor stipulated that a bond was a condition of executing a subcontract and the listed MBE, WBE or DVBE subcontractor fails or refuses to meet the bond requirements of the Contractor.

(5) The work performed by the listed subcontractor is substantially unsatisfactory and is not in substantial accordance with the plans and specifications, or the subcontractor is substantially delaying or disrupting the progress of the work.

(6) It would be in the best interest of the State.

The Contractor shall not be entitled to any payment for such work or material unless it is performed or supplied by the listed MBE, WBE or DVBE or by other forces (including those of the Contractor) pursuant to prior written authorization of the Engineer.

If a trucking broker, who is not an MBE, WBE or DVBE but was listed for MBE, WBE or DVBE credit in the Contractor's MBE/WBE/DVBE information, fails to pay at least 20 percent to the MBEs, WBEs or DVBEs listed on the broker's "certified roster", the broker will no longer be eligible for MBE, WBE or DVBE credit for one year.

If an MBE, WBE or DVBE trucking broker was listed for MBE, WBE or DVBE credit in the Contractor's MBE/WBE/DVBE information on the basis of the broker's signed agreements with MBE, WBE or DVBE truckers that the trucking will be performed by certified MBE, WBE or DVBE truckers and if all the revenue paid by the broker is not paid to the MBEs, WBEs or DVBEs listed on the broker's "certified roster", the broker will no longer be eligible for 100 percent MBE, WBE or DVBE credit for one year.

The Contractor shall include the above information in the agreements made with trucking brokers so that brokers will be aware that they may become ineligible for MBE, WBE and DVBE credit.

The Contractor shall submit monthly documentation to the Engineer that shows the amount paid to MBE, WBE and DVBE truckers under trucking brokers listed in the Contractor's MBE/WBE/DVBE information. The records must confirm that no less than 20 percent was paid to MBE, WBE or DVBE truckers by brokers who are not MBEs, WBEs or DVBEs and that all the revenue paid by MBE, WBE or DVBE brokers was paid to MBE, WBE or DVBE truckers if the Contractor indicated in the MBE/WBE/DVBE information that the broker had signed agreements with MBE, WBE or DVBE truckers that the trucking will be performed by MBE, WBE or DVBE truckers.

5-1.15 SUBCONTRACTING

Attention is directed to the provisions in Section 8-1.01, "Subcontracting," of the Standard Specifications, Section 2, "Proposal Requirements and Conditions," and Section 3, "Submission of MBE/WBE/DVBE Information and Award and Execution of Contract," elsewhere in these special provisions and these special provisions.

The second sentence in the third paragraph of said Section 8-1.01 is amended to read:

When items of work in the Engineer's Estimate are preceded by the letters (S) or (S-F), said items are designated as "Specialty Items."

The first sentence in the third paragraph of said Section 8-1.01 is amended to read:

The Contractor shall perform with his own organization contract work amounting to not less than 30 percent of the original total contract price, except that any designated "Specialty Items" may be performed by subcontract and the amount of such "Specialty Items" so performed may be deducted from the original total contract price before computing the amount of work required to be performed by the Contractor with his own organization.

The MBE, WBE and DVBE information furnished under Section 3-1.01A, "MBE/WBE/DVBE Information," of these special provisions is in addition to the subcontractor information required to be furnished under said Section 8-1.01, "Subcontracting," and Section 2-1.054, "Required Listing of Proposed Subcontractors," of the Standard Specifications.

Section 10115 of the Public Contract Code requires the Department to implement provisions to establish goals for Minority Business Enterprise (MBE), Women Business Enterprise (WBE) and Disabled Veteran Business Enterprise (DVBE) participation in highway contracts that are state funded. As a part of this requirement:

1. No substitution of an MBE, WBE or DVBE subcontractor shall be made at any time without the written consent of the Department, and
2. If an MBE, WBE or DVBE subcontractor is unable to perform successfully and is to be replaced, the Contractor will be required to make good faith efforts to replace the original MBE, WBE or DVBE subcontractor with another MBE, WBE or DVBE subcontractor.

The requirement in Section 2-1.02, "Minority Business Enterprise (MBE), Women Business Enterprise (WBE) and Disabled Veteran Business Enterprise (DVBE)," of these special provisions that MBEs, WBEs and DVBEs must be certified on the date bids are opened does not apply to MBE, WBE and DVBE substitutions after award of the contract.

5-1.16 PARTNERING

The State will promote the formation of a "Partnering" relationship with the Contractor in order to effectively complete the contract to the benefit of both parties. The purpose of this relationship will be to maintain cooperative communication and mutually resolve conflicts at the lowest possible management level.

The Contractor may request the formation of such a "Partnering" relationship by submitting a request in writing to the Engineer after approval of the contract. If the Contractor's request for "Partnering" is approved by the Engineer, scheduling of a "Partnering" workshop, selecting the "Partnering" facilitator and workshop site, and other administrative details shall be as agreed to by both parties.

The costs involved in providing a facilitator and a workshop site will be borne equally by the State and the Contractor. The Contractor shall pay all compensation for the wages and expenses of the facilitator, and of the expenses for obtaining the workshop site. The State's share of such costs will be reimbursed to the Contractor in a change order written by the Engineer. Markups will not

be added. All other costs associated with the "Partnering" relationship will be borne separately by the party incurring the costs.

The establishment of a "Partnering" relationship will not change or modify the terms and conditions of the contract and will not relieve either party of the legal requirements of the contract.

5-1.17 DISPUTES REVIEW BOARD

To assist in the resolution of disputes or potential claims arising out of the work of this project, a Disputes Review Board, hereinafter referred to as the "DRB", shall be established, unless the Contractor, within 45 days of approval of the contract, either submits a written statement to the Engineer indicating the Contractor's unwillingness to participate in a DRB and outlining the reasons therefor or fails to take action for establishment of the DRB as hereinafter provided. The DRB is intended to assist the contract administrative claims resolution process as set forth in the provisions of Section 9-1.04, "Notice of Potential Claim," and Section 9-1.07B, "Final Payment and Claims," of the Standard Specifications as amended elsewhere in these special provisions. The DRB shall not serve as a substitute for any requirements in the Standard Specifications nor any requirements elsewhere in these special provisions.

If the DRB is established, the DRB shall be utilized when dispute or potential claim resolution at the job level is unsuccessful. Once established, the DRB shall function until the day of acceptance of the contract unless terminated earlier by either the State or the Contractor as provided in the Disputes Review Board Agreement. On the day of acceptance of the contract or if the DRB is terminated earlier, the work of the DRB will cease except for completion of unfinished dispute hearings and reports. After acceptance of the contract or termination of the DRB, any disputes or potential claims that the Contractor wants to pursue, including disputes previously submitted to the DRB but unresolved, must be stated or restated in response to the Proposed Final Estimate within the time limits provided in Section 9-1.07B of the Standard Specifications as amended elsewhere in these special provisions. The State will review such claims in accordance with Section 9-1.07B, as amended. Following the completion of the State's administrative claims procedure, the Contractor may resort to arbitration as provided in Section 9-1.10, "Arbitration," of the Standard Specifications.

Disputes, as used in this section, shall include all differences of opinion, properly noticed as provided hereinafter, between the State and Contractor on matters related to the work and other subjects considered by the State or Contractor, or by both, to be of concern to the DRB on this project. Whenever the term "dispute" or "disputes" is used herein, it shall be deemed to include potential claims as well as disputes.

The DRB shall serve as an advisory body to assist in the resolution of disputes between the State and the Contractor, hereinafter referred to as the "parties". The DRB shall consider disputes referred to it, and furnish written reports containing findings and recommendations pertaining to those disputes, to the parties to aid in resolution of the differences between them. DRB findings and recommendations are not binding on the parties.

The DRB shall consist of one member selected by the State, one member selected by the Contractor, and a third member selected by the first 2 members and approved by both the State and the Contractor. The third member shall act as DRB Chairperson.

The first 2 DRB members shall select a third DRB member subject to the mutual approval of the parties, or may mutually concur on a list of potentially acceptable third DRB members and submit the list to the parties for final selection and approval of the third member. The goal in selection of the third member is to complement the professional experience of the first 2 members, and to provide leadership for the DRB's activities.

No DRB member shall have prior direct involvement in this contract, and no member shall have a financial interest in this contract or the parties thereto, within a period of 6 months prior to award of this contract, or during the contract, except as follows:

1. Compensation for services on this DRB.
2. Ownership interest in a party or parties, documented by the prospective DRB member, that has been reviewed and determined in writing by the State to be sufficiently insignificant to render the prospective member acceptable to the State.
3. Service as a member of other Disputes Review Boards on other contracts.
4. Retirement payments or pensions received from a party that are not tied to, dependent on or affected by the net worth of the party.

The above provisions apply to any party having a financial interest in this contract; including but not limited to contractors, subcontractors, suppliers, consultants, and legal and business services.

DRB members shall be especially knowledgeable in the type of construction and contract documents potentially anticipated by the contract, and shall discharge their responsibilities impartially and as an independent body considering the facts and circumstances related to the matters under consideration, applicable laws and regulations, and the pertinent provisions of the contract.

The State and the Contractor shall select their respective DRB members, in accordance with the terms and conditions of the Disputes Review Board Agreement and these special provisions, within 45 days of the approval of the contract unless a written statement declining to participate in the DRB has been submitted by the Contractor. Each party shall provide written notification to the other of the name of their selected DRB member along with the prospective member's written disclosure statement as provided below. Failure of the

Contractor to select a DRB member and provide the required written notification and disclosure statement within the time specified above shall be considered as rejection of the DRB, and no DRB will be established for this contract. A copy of a Disputes Review Board Agreement, Form Cem-6202, to be completed by the Contractor, the State, and the DRB members after award of the contract if the Contractor elects to establish a DRB for this project, is included in the "Proposal and Contract" book.

Before their appointments are final, the first 2 prospective DRB members shall submit complete disclosure statements to their appointing party. The statement shall include a resume of the prospective member's experience, together with a declaration describing all past, present and anticipated or planned future relationships, including indirect relationships through the prospective member's primary or full-time employer, to this project and with all parties involved in this construction contract; including, but not limited to, any relevant subcontractors or suppliers to the parties, the parties' principals or the parties' counsel. Disclosure of close professional or personal relationships with all key members of all parties to the contract shall be included. The third DRB member shall supply such a statement to the first 2 DRB members and to the parties prior to appointment. Failure of any of the 3 prospective DRB members to fully comply with all required employment and financial conditions of DRB membership as described in the Disputes Review Board Agreement and elsewhere herein shall constitute sufficient grounds for rejection of the prospective member by either party.

The first duty of the State and Contractor selected members of the DRB is to select and recommend prospective third member(s) to the parties for final selection and approval. The first 2 DRB members shall proceed with the selection of the third DRB member immediately upon receiving written notification from the State of their selection, and shall provide their recommendation simultaneously to the parties within 14 days of the notification.

In the event of an impasse in selection of the third DRB member, the State and the Contractor shall each propose 3 candidates for the third position. All candidates proposed under this paragraph shall be selected from the current list of arbitrators certified by the Public Works Contract Arbitration Committee created by Article 7.2 (commencing with Section 10245) of the State Contract Act. The first 2 DRB members shall then select one of the 6 proposed candidates in a blind draw. An impasse shall be considered to have been reached if the parties are unable to approve a third member within 14 days of receipt of the recommendation of the first 2 DRB members, or if the first 2 members are unable to agree upon a recommendation within the 14 day time limit allowed in the preceding paragraph.

The Contractor, the State, and all 3 members of the DRB shall execute the Disputes Review Board Agreement within 14 days of selection of the third member. The Disputes Review Board Agreement, Form CEM-6202 prepared by the Department, shall be executed and adhered to in administration of this DRB. The Engineer shall be the person authorized by the State to execute and administer the terms of the Agreement. The person(s) designated by the Contractor as authorized to execute Contract Change Orders shall be authorized to execute and administer the terms of this agreement, or delegate such authority in writing. The operation of the DRB will be in conformance with the terms of the Disputes Review Board Agreement.

The compensation and expenses of the DRB shall be borne equally by the State and the Contractor. The State will provide, at no cost to the Contractor, administrative services such as conference facilities and secretarial services to the DRB. Compensation and expenses of the DRB shall be as provided in the Disputes Review Board Agreement. All DRB members shall be compensated at the same hourly rate. The Contractor shall pay all compensation for the wages and expenses of the DRB. The State's share of such costs will be reimbursed to the Contractor in a change order written by the Engineer. There will be no markups applied to any expenses connected with the DRB, either by the DRB members or by the Contractor when requesting payment of the State's share of DRB expenses.

Service of a DRB member may be terminated at any time with not less than 14 days notice as follows:

1. The State may terminate service of the State appointed member.
2. The Contractor may terminate service of the Contractor appointed member.
3. The third member's services may be terminated only by agreement of the other 2 members.
4. By resignation of a member.

Termination of a member will be followed by appointment of a replacement as specified below. Changes in either of the DRB members chosen by the 2 parties will not require reselection of the third member, unless both parties agree to such reselection in writing.

When a member of the DRB is replaced, the replacement member shall be appointed in the same manner as the replaced member was appointed. The appointment of a replacement DRB member will begin promptly upon determination of the need for replacement and shall be completed within 14 days. The Disputes Review Board Agreement will be amended to reflect the change of a DRB member.

The following procedure shall be used for dispute resolution:

1. If the Contractor objects to any decision, act or order of the Engineer, the Contractor shall give written notice of potential claim as specified in Section 9-1.04, "Notice of Potential Claim," of the Standard Specifications, as amended elsewhere in these special provisions, including provision of applicable cost documentation; or file written protests or notices pursuant to

Sections 4-1.03A, "Procedure and Protest," 8-1.06, "Time of Completion," 8-1.07, "Liquidated Damages," or 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications.

2. The Engineer will respond, in writing, to the Contractor's written protest or notice within 14 days of receipt of the written protest or notice.
3. Within 14 days after receipt of the Engineer's written response, the Contractor shall, if the Contractor still objects, file a written reply with the Engineer, stating clearly and in detail the basis of the objection.
4. Following the Contractor's objection to the Engineer's decision, the dispute can be referred to the DRB by either the State or the Contractor. Such referral shall be made in writing to the DRB, simultaneously copied to the other party, within 14 days after receipt of the Contractor's written reply to the Engineer. The written dispute referral shall describe the disputed matter in individual discrete segments such that it will be clear to both parties and the DRB what discrete elements of the dispute have been resolved, and which remain unresolved.
5. The Contractor and the State shall each be afforded an opportunity to be present and to be heard by the DRB, and to offer evidence. Either party furnishing any written evidence or documentation to the DRB must furnish copies of such information to the other party a minimum of 14 days prior to the date the DRB is scheduled to convene the hearing for the dispute. Either party shall produce such additional evidence as the DRB may deem necessary to reach an understanding and determination of the dispute. The party furnishing additional evidence shall furnish copies of such additional evidence to the other party at the same time the evidence is provided to the DRB. The DRB will not consider any evidence not furnished in accordance with the terms specified herein.
6. The DRB's report, containing findings and recommendations as described in the Disputes Review Board Agreement, will be furnished in writing to both the State and the Contractor. DRB reports, including minority opinion if any, shall be completed and submitted to the parties within 30 days of the DRB hearing, except that time extensions may be granted at the request of the DRB by written concurrence of both parties. The report will consider the facts and circumstances related to the matters under consideration, applicable laws and regulations, the pertinent provisions of the Contract and the actual costs and time incurred as shown on the Contractor's cost accounting records. The provisions of Section 9-1.03, "Force Account Payment", of the Standard Specifications should be utilized by the DRB only when appropriate under the contract provisions.
7. Within 30 days of receiving the DRB's report, both the State and the Contractor shall respond to the DRB in writing signifying that the dispute is either resolved or remains unresolved. Failure to provide such written response within the time specified, or a written rejection of the DRB's recommendation presented in the report by either party, will result in the reversion of the subject dispute to the administrative claims resolution process specified in the contract. Immediately after responses have been received by both parties, the DRB will provide copies of both responses to the parties simultaneously. Either party may request clarification of elements of the DRB's report from the DRB prior to responding to the report. Any such request will be considered by the DRB only if submitted within 10 days of receipt of the DRB's report, and shall be submitted simultaneously in writing to both the DRB and the other party. Only one request for clarification will be allowed from each party for any individual DRB report. The DRB shall respond, in writing, to requests for clarification within 10 days of receipt of such requests.
8. The DRB's recommendations, stated in the DRB's reports, are not binding on either party. Either party may appeal a recommendation of the DRB back to the DRB for reconsideration. Reconsiderations shall only be allowed when there is new evidence to present. Any such appeal will be considered by the DRB only if submitted within the 30 day time limit specified for response to the DRB's written report. Each party may submit only one appeal regarding any individual DRB recommendation.
9. If the State and the Contractor are able to resolve their dispute with the aid of the DRB's report, the State and Contractor shall promptly accept and implement the recommendations of the DRB.
10. No members who served on the DRB for this contract may be called as witnesses in arbitration proceedings which may arise from this contract, and all documents created by the DRB shall be inadmissible as evidence in subsequent arbitration proceedings, except the DRB's final written reports and minority reports on each issue brought before it.
11. A rejection of the DRB recommendation by either party may be considered by an arbitrator in any subsequent arbitration as grounds for awarding costs and reasonable attorney's fees to the prevailing party, as provided in Public Contract Code Section 10240.13.
12. The State and Contractor shall jointly indemnify and hold harmless the DRB members from and against all claims, damages, losses, and expenses, including but not limited to attorney's fees,

arising out of and resulting from the findings and recommendations of the DRB.

13. The DRB members shall have no claim against the State or the Contractor, or both, from any claimed harm arising out of the parties' evaluations of the DRB's report.

5-1.18 COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS

The provisions of this section shall apply only to the following contract item :

ITEM CODE	ITEM
390155	ASPHALT CONCRETE (TYPE A)

The compensation payable for said asphalt concrete will be subject to being increased or decreased in accordance with the provisions of this section for paving asphalt price fluctuations exceeding 5 percent (Iu/Ib is greater than 1.05 or less than 0.95) which occur during performance of the work.

The adjustment in compensation will be determined in accordance with the following formulae when the item of asphalt concrete is included in a monthly estimate:

Total monthly adjustment = AQ

For an increase in paving asphalt price index exceeding 5 percent

A = 0.90 (Iu/Ib - 1.05) Ib

For a decrease in paving asphalt price index exceeding 5 percent

A = 0.90 (Iu/Ib - 0.95) Ib

Where A = Adjustment in dollars per ton of paving asphalt used to produce asphalt concrete rounded to the nearest $0.01.

Iu = The California Statewide Paving Asphalt Price Index which is in effect on the first business day of the month within the pay period in which the quantity subject to adjustment was included in the estimate.

Ib = The California Statewide Paving Asphalt Price Index for the month in which the bid opening for the project occurred.

Q = Quantity in tons of paving asphalt that was used in producing the quantity of asphalt concrete shown under "This Estimate" on the monthly estimate using the amount of asphalt determined by the Engineer.

The adjustment in compensation will also be subject to the following:

1. The compensation adjustments provided herein, will be shown separately on payment estimates. The Contractor shall be liable to the State for decreased compensation adjustments and the Department may deduct the amount thereof from any moneys due or that may become due the Contractor.

2. Compensation adjustments made under this section will be taken into account in making adjustments under Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications.

3. The total price adjustment for price index increases of paving asphalt on this project shall not exceed $34,700.

4. In the event of an overrun of contract time, adjustment in compensation for paving asphalt included in estimates during the overrun period will be determined using the California Statewide Paving Asphalt Price Index in effect on the first business day of the month within the pay period in which the overrun began.

The California Statewide Paving Asphalt Price Index is determined each month on the first business day of the month by the Department using the median of posted prices in effect as posted by Chevron, Mobil and Unocal for the Buena Vista, Huntington Beach, Kern River, Long Beach, Midway Sunset and Wilmington fields.

In the event that any of the companies discontinue posting their prices for any field, the Department will determine an index from the remaining posted prices. The Department reserves the right to include in the index determination the posted prices of additional fields.

5-1.19 PAYMENTS

Attention is directed to Section 9-1.06, "Partial Payments," and 9-1.07, "Payment After Acceptance," of the Standard Specifications and these special provisions.

For the purpose of making partial payments pursuant to Section 9-1.06, "Partial Payments," of the Standard Specifications, the amount set forth for the contract items of work hereinafter listed shall be deemed to be the maximum value of said contract item of work which will be recognized for progress payment purposes.

Clearing and Grubbing	$ 7,000.00
Develop Water Supply	$ 25,000.00
Bridge Removal (Portion) (Location A)	$ 23,000.00
Bridge Removal (Portion) (Location B)	$ 68,200.00
Bridge Removal (Portion) (Location C)	$ 217,000.00

Electronic Mobile Daily Diary Computer System
$ 135,000.00

After acceptance of the contract pursuant to Section 7-1.17, "Acceptance of Contract," of the Standard Specifications, the amount, if any, payable for a contract item of work in excess of the maximum value for progress payment purposes hereinabove listed for said item, will be included for payment in the first estimate made after acceptance of the contract.

In determining the partial payments to be made to the Contractor, only the following listed materials will be considered for inclusion in said payment as materials furnished but not incorporated in the work:

Bar reinforcing steel
Epoxy coated bar reinforcing steel
Prestressing steel in sealed containers
Prestressing ducts and anchorages
Prestressing rods
Column casing
Structural steel
Miscellaneous metal
Permanent steel casing for 48" cast-in-drilled-hole concrete piling
Precast concrete abutment cap beams
Shock transmission devices
PTFE spherical bearings
Sliding bearing devices
Elastomeric pad
Tiedown anchors
Seismic monitoring system conduits and pull boxes
Pipe piles 16”x0.5 for fender system
Temporary deck bridging
Studs in sealed boxes
Culvert Pipe and appurtenances
Sewer Pipe
Miscellaneous Iron and Steel
Pavement Markers
Fences and Gates
Barrier Posts

Structural steel fabricated and stored outside of the State of California or the United States will be eligible for partial payment if the Contractor furnishes evidence satisfactory to the Engineer that its storage is subject to or under the control of the Department and that it has been fabricated specifically for this project and is of such character that is not adaptable to any other use.

5-1.20 SOUND CONTROL REQUIREMENTS

Sound control shall conform to the provisions in Section 7-1.01I, "Sound Control Requirements," of the Standard Specifications and these special provisions.

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dbA at a distance of 50 feet. No pile driving operations shall be performed during the same hours. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.

Said noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

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

5-1.21 HAZARDOUS MATERIAL, GENERAL

Attention is directed to "Hazardous Material Excavation" under "Earthwork" of these special provisions regarding the removal and disposal of hazardous material.

Hazardous materials have been discovered through testing within the project limits. Portions of the test results are included in the "Materials Information Handout." The complete report entitled "Site Investigation Report, Carquinez Bridge Seismic Upgrade, Contra Costa County, California" and "Site Investigation Report, Carquinez Bridge Seismic Upgrade Contra Costa County and Mission Boulevard Right-of-Way Parcel, Alameda County, California" are available for inspection at the Department of Transportation, Toll Bridge Seismic Retrofit Program Duty Senior’s Desk, 111 Grand Avenue, Oakland, California, (510) 286-5549. The levels of material designated as hazardous to the depth of one foot at bent D2 is regulated under the Resource Conservation and Recovery Act (RCRA). Except as mentioned above in this paragraph, the levels of material designated as hazardous are not regulated under the Resource Conservation and Recovery Act (RCRA).

Temporary stockpiling of hazardous material will be allowed for 30 days beginning on the first day of excavation at each location. A stockpiling plan in conformance with Section 25123.3 of the Health and Safety Code and California Code of Regulations (CCR) Title 22 Section 66268.50 shall be submitted to the Engineer for review and approval at least 15 calendar days prior to performing any stockpiling. This plan shall be addressed in storm water pollution prevention plan. Full compensation for stockpiling of material, including removing said stockpile shall be considered as included in the contract price paid per cubic yard for the various items involved with hazardous material of the types listed in the Engineer’s estimate and no separate payment will be made therefor.—No stockpiling of contaminated material or hazardous material will be allowed for any work within the C&H property. Hazardous material shall not be deposited on public roads. The Contractor shall

indemnify the State from any costs due to spillage during the transport of the hazardous material to the disposal facility.

All hazardous material on exteriors of transport vehicles shall be removed and placed either into the current transport vehicle or the excavation prior to the vehicle leaving the exclusion zone.

The Contractor shall monitor the air quality continuously during excavation operations at all locations containing hazardous material.

Disposal of additional material resulting from any excavation operations outside excavation pay limits will be at the Contractor's expense. This resultant material shall be treated as hazardous material if the test results for the location indicate that the material being excavated is hazardous.

APPLICABLE RULES AND REGULATIONS.-- Excavation, transport and disposal of hazardous material shall be in accordance with the rules and regulations of the following agencies:

United States Department of Transportation (USDOT)

United States Environmental Protection Agency (USEPA)

California Environmental Protection Agency (CAL-EPA)

1. Department of Toxic Substance Control (DTSC)
2. Integrated Waste Management Board
3. Regional Water Quality Control Board, Region 2 (RWQCB)
4. State Air Resources Board

Bay Area Air Quality Management District (BAAQMD)

California Division of Occupational Safety and Health Administration (CAL-OSHA)

PERMITS AND LICENSES.--The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work, including registration for transporting vehicles carrying the hazardous material. The California Environmental Quality Act (CEQA) of 1970 (Chapter 1433, Stats. 1970), as amended may be applicable to permits, licenses and authorizations which the Contractor shall obtain from all agencies in connection with performing the work of the contract. The Contractor shall comply with the provisions of said statutes in obtaining such permits, licenses and other authorizations.

The Engineer will obtain the Environmental Protection Agency Generator Identification No. and Board of Equalization Identification Number as the State is the Generator.

SITE SPECIFIC HEALTH, SAFETY AND WORK PLAN.--The Contractor shall prepare a detailed Health, Safety and Work Plan for all site personnel in accordance with the DTSC and CAL-OSHA regulations. The Health, Safety and Work Plan shall include a plot plan indicating the exclusion zones, contaminant reduction (decontamination) zones and support zones in accordance with CCR, Title 8, an air monitoring plan, material handling plan, site clean up procedures, and physical barrier; and shall be submitted at least 5 working days prior to beginning any work for review and acceptance by the Engineer. Prior to submittal, the Contractor shall have the Health, Safety and Work Plan approved by a Civil Engineer, registered in the State of California and by a Certified Industrial Hygienist.

SAFETY.--Prior to performing any excavation work at the locations containing material classified as hazardous, all personnel, including State Personnel, shall complete a safety training program which meets 29 CFR 1910.120 and 8 CCR 5192 covering the potential hazards as identified. Personnel not involved in excavation work shall complete a safety training program which meets 8 CCR 1532.1. The training shall be provided by the Contractor. The Contractor shall provide a certification of completion of the Safety Training Program to all personnel. Any personal protective equipment required by the Contractor's Health, Safety and Work Plan for personnel working within the exclusion zone will be supplied to State personnel by the Contractor. The number of State personnel requiring the above mentioned safety training program and personal protective equipment will be 15.

The decontamination area shall be located outside of the exclusion zone. Water from decontamination procedures shall be collected and disposed of at an appropriate disposal site by the Contractor. Non-reusable protective equipment, once used by any personnel, including State personnel, shall be collected and disposed of at an appropriate disposal site by the Contractor. Temporary 6-foot chain link security fence shall be installed to surround and secure the exclusion zone.

SAMPLING AND ANALYSIS.--The Contractor shall test the material to be excavated at his own expense for any additional acceptance requirements put forth by the disposal facility. Sampling and analysis shall be performed using the sampling and analysis procedure required by the disposal facility.

The Contractor may perform additional tests on the material to be excavated at his option and expense for confirmation of the material classification as hazardous. Sampling and analysis shall be the same or equivalent tests specified in the Materials Information Handout. The Contractor shall submit for approval by the Engineer, his sampling and analysis procedure and the name and address of the laboratory to be used five working days prior to beginning any sampling or analysis. The laboratory used shall be certified by the California Department of Health Services.

MEASUREMENT AND PAYMENT.--Full compensation for conforming to the requirements of this section "Hazardous Material, General" shall be considered as included in the prices paid for the various contract items of work affected by this section and no additional compensation will be allowed therefor.

5-1.22 PROJECT APPEARANCE

The Contractor shall maintain a neat appearance to the work.

In any area visible to the public, the following shall apply:

When practicable, broken concrete and debris developed during clearing and grubbing shall be disposed of concurrently with its removal. If stockpiling is necessary, the material shall be removed or disposed of within 30 days.

The Contractor shall furnish trash bins for all debris from structure construction. All debris shall be placed in trash bins daily. Forms or falsework that are to be re-used shall be stacked neatly concurrently with their removal. Forms and falsework that are not to be re-used shall be disposed of concurrently with their removal.

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

5-1.23 RELATIONS WITH CALIFORNIA DEPARTMENT OF FISH AND GAME

A portion of this project is located within the jurisdiction of the California Department of Fish and Game. An agreement regarding a stream or lake has been entered into by the Department of Transportation and the Department of Fish and Game. The Contractor shall fully inform himself of the requirements of this agreement as well as all rules, regulations, and conditions that may govern his operations in said area and shall conduct his operations accordingly.

Copies of the agreement may be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building, 1120 N Street, P.O. Box 942874, Sacramento, California 94274-0001, Telephone No. (916)654-4490, and are available for inspection at the office of the District Director of Transportation at 111 Grand Avenue, Oakland, CA 94612.

It is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any stream, river, or lake without first notifying the Department of Fish and Game, unless the project or activity is noticed and constructed in accordance with all conditions imposed under Fish and Game Code Section 1601.

Attention is directed to Sections 7-1.01, "Laws to be Observed," 7-1.01G, "Water Pollution," and 7-1.12, "Responsibility for Damage," of the Standard Specifications.

Any modifications to the agreement between the Departments of Transportation and Fish and Game which are proposed by the Contractor shall be submitted in writing to the Engineer for transmittal to the Department of Fish and Game for their consideration.

When the Contractor is notified by the Engineer that a modification to the agreement is under consideration, no work will be allowed which is inconsistent with the proposed modification until the Departments take action on the proposed modifications. Compensation for delay will be determined in accordance with Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

The provisions of this section shall be made a part of every subcontract executed pursuant to this contract.

Any modifications to any agreement between the Departments of Transportation and Fish and Game will be fully binding on the Contractor, and the provisions of this section shall be made a part of every subcontract executed pursuant to this contract.

5-1.24 RELATIONS WITH CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

The location of the East Bound Carquinez Seismic Retrofit is within an area controlled by the Regional Water Quality Control Board. Regional Water Quality Control Board Order No. 94-098 has been issued covering work to be performed under this contract. The Contractor shall fully inform himself of all rules, regulations and conditions that may govern his operations in said area and shall conduct his work accordingly.

Copies of the agreement may be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building, 1120 N Street, P.O. Box 942874, Sacramento, California 94274-0001, Telephone No. (916)654-4490, and are available for inspection at the office of the District Director of Transportation at 111 Grand Avenue, Oakland, CA 94612.

Attention is directed to Sections 7-1.11, "Preservation of Property," and 7-1.12, "Responsibility for Damage," of the Standard Specifications.

Any change in the Order conditions proposed by the Contractor shall be submitted to the Engineer for transmittal to the Regional Water Quality Control Board for their approval. Changes shall not be implemented until approved in writing by the Regional Water Quality Control Board.

Attention is directed to Section 8-1.06, "Time of Completion," of the Standard Specifications. Days when the Contractor's operations are restricted by the requirements of this section, shall not be considered to be nonworking days whether or not the controlling operation is delayed.

5-1.25 RELATIONS WITH U. S. COAST GUARD

The location of the existing bridge retrofit work is adjacent to and across a navigable channel which is under the jurisdiction of the U.S. Coast Guard Eleventh District, Coast Guard Island, Alameda, Ca 94501-5100.

A U.S. Coast Guard Preconstruction Checklist has been issued covering work to be performed under this contract. The Contractor shall fully inform himself of all rules, regulations and conditions that may govern his operations in said area and shall conduct his work accordingly.

A copy of the Checklist may be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building, 1120 N Street, P.O. Box 942874, Sacramento, California 94274-0001, Telephone No. (916)654-4490, and are available for inspection at the office of the Toll Bridge Program Duty Senior, Department of Transportation - District 4, 111 Grand Avenue, Oakland, California 94612-3717, Telephone No. (510) 286-5549 .

Attention is directed to Sections 7-1.01, "Laws To Be Observed," and 7-1.11, "Preservation of Property," of the Standard Specifications.

The Contractor shall comply with all requirements of the U.S. Coast Guard with regard to the manner in which he conducts his operations and disposes of material. Any restriction of the channel and all navigation and warning lights shall be in accordance with regulations and subject to the approval of the U.S. Coast Guard.

Material from the work shall not be disposed of in the channel. Attention is directed to "Earthwork" elsewhere in these special provisions for handling of dredged material.

The Contractor shall keep proper warning lights each night between the hours of sunset and sunrise upon all floating equipment and falsework connected with the work and upon all buoys which are of a size and in such location as to endanger or obstruct navigation.

All work shall be so conducted that the free navigation of the waterway shall not be interfered with and the present navigable depths and channel width shall not be impaired.

All floating equipment and anchors must be marked in accordance with Coast Guard Regulation CG-169.

NAVIGATIONAL REQUIREMENTS.--Within 6 weeks prior to beginning work between piers, the Contractor shall notify the Engineer in writing, along with a drawing, of his proposed method for anchoring barges. The Engineer will transmit the Contractor's proposal to the Coast Guard for approval. The Contractor shall not anchor any barges until his procedure has been approved by the Coast Guard.

In the event that the required Coast Guard approval, in the opinion of the Engineer, delays the Contractor's operations, the Contractor will be granted a time extension commensurate with the delay.

Should the Contractor during the progress of the work, sink, lose, or throw overboard any material, plant, machinery or floatable debris which may be dangerous to or will obstruct navigation, he shall immediately recover or remove such obstruction. The Contractor shall give his immediate notice to the proper authorities and, if required, shall mark or buoy such obstructions until they can be removed. Should he neglect or delay compliance with the above requirements, such obstructions shall be removed by the State and the cost of such removal will be deducted from moneys due to the Contractor or may be recovered under his bond.

Compliance on the part of the Contractor with the requirements of this Section shall not be constructed as relieving the Contractor from his full responsibility for protecting and guarding the work from injury or from damage from any cause as specified under Section 7-1.016, "Contractor's Responsibility for the Work and Materials," of the Standard Specifications.

Full compensation for conforming to the requirements of this Section shall be considered as included in the contract prices paid for the various items of work involved and no separate payment will be made therefor.

5-1.26 MOORING PLAN

Within 5 working days of the approval of the contract the Contractor shall submit to the Engineer a series of mooring plans for each of the proposed vessel positioning. The mooring plan shall be scaled and clearly show the vessel(s) position and location of the anchoring devices relative to the Carquinez Bridge and the shipping channel. It is the intent of the mooring plan to monitor the Contractor's vessel movements and vessel position during the construction process. The plan also requires the Contractor to diligently coordinate with, through the Engineer, all the outside agencies to prevent the Contractor's interference with commercial and private shipping traffic. In addition to the mooring plan, the Contractor shall submit alternate mooring plans in the event their operations are interrupted by vessel traffic.

The Contractor shall submit a written 'Notice to Mariners' to the Engineer one month prior to mobilization within the Carquinez Strait. In addition the Contractor shall furnish to the Engineer weekly updates of the 'Notice to Mariners'. At a minimum, the weekly updates shall include the Contractor's one month forecast of their operations.

The Contractor shall develop the mooring plan in cooperation with outside agencies. These agencies shall include but not be limited to the following:

Amorco Dock
510-372-3159
Avon Dock
510-372-3157
Benicia Terminal
707-745-2394
Benicia Drude Dock
707-745-7628
Benicia Security Gate House
707-745-7689

Huntway
707-746-1330
Martinez Terminal (Wickland) Marine Operations 510-229-3200
Shell Oil Company
510-313-3000
Naval Weapons Station Vessel Coordination 510-246-5875
United States Coast Guard(USCG)
510-437-3073
Vessel Traffic Service(USCG)
415-556-2760
Port of Benicia
707-745-1572
Port of Sacramento
916-371-8000
Port of Stockton
209-946-0246
Sea/River Shipping Company
707-747-3200
Exxon Company USA
707-745-7801

At the option of the Engineer, the list may be expanded to incorporate additional agencies. The Contractor shall continue with the additional agencies as requested by the Engineer. The Engineer shall conduct and coordinate weekly meetings with the Contractor and the aforementioned agencies for the purpose of scheduling shipping traffic.

The Contractor attention is directed to Section 8-1.04 "Progress Schedule," of the Standard Specifications and these special provisions. The Contractor shall schedule within the baseline CPM all outside agency shipping traffic and other contracts which may be in progress within the limits of this project.

The Contractor attention is directed to "Cooperation" of these special provisions. The Contractor shall coordinate his vessel movement and mooring plan with contractors which may be in progress within the limits of this project.

The Contractor shall not moor their vessel(s) to the bridge structure.

The Contractor shall maintain bridge clearances prescribed by the Coast Guard for protection of vessels transiting the Carquinez Bridge. . Scaffold systems utilized by the Contractor shall comply with this vertical clearance requirement. Lines, cables or ropes placed from the span be securely fastened to the superstructure and shall not be permitted within the vertical clearance zone.

If directed by the Engineer, the Contractor shall have the capability to move their vessel(s) within a one hour notice.

During the vessel repositioning, the Contractors attention is directed to Section 7-1.11, "Preservation of Property," of the Standard Specifications and these special provisions.

Full compensation for conforming to the requirements of this Section shall be considered as included in the contract prices for the various items of work and no additional compensation will be allowed therefor.

5-1.27 RELATIONS WITH U.S. ARMY CORPS OF ENGINEERS

A Department of Army Corps of Engineers Permit is applicable to this project.

Attention is directed to Sections 7-1.01, "Laws To Be Observed," and 7-1.11, "Preservation of Property," of the Standard Specifications.

The Contractor's attention is directed to the following conditions which are among those established by the U.S. Army Corps of Engineers in the permit for this project:

1. To provide notification to the maritime community of activities affecting navigation, the Contractor shall provide in writing to the Engineer for notification to the Coast Guard, the following information at least three weeks before commencing work:

    a. Name and telephone number of the project manager.
    b. Size and placement of any floating construction equipment.
    c. Radio telephone frequencies and call signs of any marine equipment.
    d. Work start and completion dates.

2. The Coast Guard Captain of the Port (COTP) of San Francisco Bay may require modifications to marine deployment or mooring systems to safeguard navigation while work is in progress. Upon receipt of notification to start, the Coast Guard will send a copy of the notification letter to the COTP for review.
3. Preparation of a Dredging Operation Plan and Solid Disposal Management Plan, refer to the Earthwork section of these special provisions.
4. Requirements on dredged material, refer to the Earthwork section of these special provisions.

A Copy of Permit may be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building 1120 N Street, P.O. Box 942874, Sacramento, CA 94274-0001, Telephone No. (916) 654-4490, and are available for inspection at the office of the District Director of Transportation at 111 Grand Avenue, Oakland, CA.

Full compensation for conforming with the requirements of the Permit section shall be considered as

included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

5-1.28 RELATIONS WITH BAY CONSERVATION AND DEVELOPMENT COMMISSION

A Bay Conservation and Development Commission Permit is applicable to this project.

Attention is directed to Sections 7-1.01, “Laws To Be Observed,” and 7-1.11, “Preservation of Property,” of the Standard Specifications.

The Contractor’s attention is directed to the following conditions which are among those established by the Bay Area Conservation and Development Commission in the permit for this project:

1. Notification to the Engineer in writing at least 30 days prior to any dredging operations.
2. Dredging report, refer to the Earthwork section (Dredging Operations Plan) of these special provisions.
3. Results of any effluent water quality or other testing required by the San Francisco Bay Regional Quality Control Board shall be submitted in writing to the Engineer for submission to the Commission’s office at the same time such testing is submitted to the Regional Board.
4. No pilings or other wood structures that have been pressure treated with creosote shall be used in any area subject to tidal action in the Bay or certain waterway, in any salt pond, or any managed wetland within the Commission’s jurisdiction as part of the project.
5. Any sunken debris resulting from the construction effort shall be immediately marked with buoys and removed within 90 days. The Contractor shall survey the channel following completion of all construction and certify to the Coast Guard that the waterway has been cleared to the natural bottom.

A Copy of Permit may be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building 1120 N Street, P.O. Box 942874, Sacramento, CA 94274-0001, Telephone No. (916) 654-4490, and are available for inspection at the Department of Transportation, Toll Bridge Seismic Retrofit Program Duty Senior’s Desk at 111 Grand Avenue, Oakland, CA.

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

5-1.29 INSURANCE

The Contractor shall carry Public Liability and Property Damage Liability Insurance at all times when work is being performed. Before beginning work, the Contractor shall provide the Engineer the name, address, and telephone number of the nearest claims adjusting office of the company which has issued his liability insurance.

5-1.30 AREAS FOR CONTRACTOR'S USE

Attention is directed to the requirements specified in Section 7-1.19, "Rights in Land and Improvements," of the Standard Specifications and these special provisions.

The highway right of way shall be used only for purposes that are necessary to perform the required work. The Contractor shall not occupy the right of way, or allow others to occupy the right of way, for purposes which are not necessary to perform the required work.

There are no State-owned parcels adjacent to the right of way for the exclusive use of the Contractor within the contract limits. The Contractor shall secure at his own expense any area required for plant sites, storage of equipment or materials, or for other purposes.

No area is available within the contract limits for the exclusive use of the Contractor. However, temporary storage of equipment and materials on State property may be arranged with the Engineer, subject to the prior demands of State maintenance forces and to all other contract requirements. Use of the Contractor's work areas and other State-owned property shall be at the Contractor's own risk, and the State shall not be held liable for any damage to or loss of materials or equipment located within such areas.

The Contractor shall remove all equipment, materials, and rubbish from the work areas and other State-owned property which he occupies and shall leave the areas in a presentable condition, in conformance with the provisions in Section 4-1.02, "Final Cleaning Up," of the Standard Specifications.

The Contractor shall secure at his own expense any area required for storage of plant, equipment and materials, or for other purposes if sufficient area is not available to him within the contract limits.

The Route 80 median area within 800 feet north of the Carquinez Bridges is available for the exclusive use of the Contractor except as required by PG&E for removal of the 26" gas pipe on the westside of the bridge. If the Contractor elects to use this area for yards and/or other purposes, the Contractor shall submit a working drawing as specified in Section 5-1.02 "Plans and Working Drawings" of the Standard Specifications. The drawing shall indicate the general layout of the yard area and proposed ingress and egress points in relation to the existing mainline roadways and crossover. Provisions shall be made for public safety as specified in Section 7-1.09, "Public Safety" of the Standard Specifications.

5-1.31 UTILITIES

The Contractor shall make his own arrangements to obtain electrical power, water, or compressed air or other utilities required for his operations and shall make and maintain the necessary service connections at his own expense.

The Contractor will not be permitted to use existing State utilities on the bridge or within the contract limits .

The existing traveler scaffolds and other scaffolds will not be available for use by the Contractor.

Contractor's scaffolds, platforms or other access devices may be placed on the existing traveler rails, providing they carry only personnel and hand tools. The traveler rails shall not be used to support the Contractor's formwork, to support the protective cover where required, nor to hoist or transport structural steel or other materials. The design loading for the traveler rails and their supports shall not be exceeded.

Attention is directed to Section 7-1.11, "Preservation of Property," and Section 7-1.14, "Cooperation," of the Standard Specifications.

5-1.32 SANITARY PROVISIONS

State sanitary facilities will not be available for use by the Contractor's employees.

5-1.33 BRIDGE TOLLS

Toll-free passage on the Carquinez Bridge will be granted only for cars, trucks and special construction equipment which are clearly marked on the exterior with the Contractor's identification and which are being operated by the Contractor exclusively for the project and for the purpose of transporting materials and workmen directly to and from the jobsite.

The Contractor shall make application to the Engineer in advance for toll-free passage. The Contractor will be held accountable for the proper use of all passes issued, and upon completion of the work, shall return all unused passes.

Attention is directed to Section 23302, "Evasion of Toll," of the Vehicle Code.

5-1.34 ACCESS TO JOBSITE

Prospective bidders may make arrangements to visit the jobsite by contacting the Maintenance Superintendent, Carquinez Bridge, at telephone (707) 648-4111.

5-1.35 DRAWINGS

Attention is directed to Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications and these special provisions.

When working drawings are required by these special provisions, the drawings shall be submitted in accordance with the provisions in Section 55-1.02, "Drawings," of the Standard Specifications and the following:

1. Working drawings shall be submitted to the Engineer.
2. Working drawings shall not exceed 22" x 34" in size.
3. Microfilms are required of all approved shop drawings and shall be only a 24x reduction.

Working drawings will be required for:

In-field survey of existing structural steel, dimensional verification for as-built conditions
Superstructure temporary support at main span towers, Abutment 1, Pier No. 5, suspended span expansion joint and approaches
Temporary shorings or bracings required in the event that removal of any element of the bridge (x-frame members, top or bottom laterals, sway frames, portal frames, hold downs, and tower and other elements) may weaken the structure
Shoring system at Abutment 1
Prestressing
Tiedown anchors
Shock transmission devices
Temporary deck bridging
PTFE spherical bearings
Temporary supports for bar reinforcing assemblages
Concrete filled steel grid deck
Operating cranes on the bridge deck
Attaching lifting systems to the existing structure
Paint debris containment and collection system
Lead compliance program
Bridge removal
Pile handling adjoining the traveled way
Elastomeric pad
Protective coverings for work above Rail Road
Protective coverings for work above traveled way
Structural steel
Structural steel removal
Miscellaneous metal
Falsework
Relocation of compressed air lines
Relocation of water lines
Relocation of electrical conduits
Relocation of ladders and platforms
Relocation of Traffic Operations System (TOS)

5-1.36 PERMITS AND LICENSES

Attention is directed to Section 7-1.04, "Permits and Licenses," of the Standard Specifications and these special provisions.

The Department has obtained the following permits for this project:

U.S. Coast Guard Approval
U.S. Army Corps of Engineers Permit
Bay Conservation and Development Commission (BCDC) Permit
San Francisco Bay Regional Water Quality Control Board Permit
U.S. Fish & Wildlife Service Coordination
National Pollutant Discharge Elimination System (NPDES) Permit CAS029998
California Department of Fish and Game

Copies of these permits can be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building, 1120 N Street, P.O. Box 942874, Sacramento, California 94274-0001, Telephone No. (916) 654-4490, or may be seen at the office of the Department of Transportation, Toll Bridge Seismic Retrofit Program Duty Senior's Desk at 111 Grand Avenue, Oakland, CA 94612.

Full compensation for conforming to the requirements in these permits shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be allowed therefor.

5-1.37 TRANSPORTATION FOR THE ENGINEER

The Contractor shall provide transportation for the Engineer in accordance with Section 5-1.08, "Inspection," of the Standard Specifications and these special provisions.

The Contractor shall provide, operate, berth and maintain, throughout the life of the contract, 2 commercial grade work boats for the sole use of the Engineer and the Engineer's staff in performance of their work. In addition, the Engineer and all authorized representatives of the State, acting within the scope of their duties in connection with the work under this contract, shall be permitted to ride as passengers, without charge, on any boat operated by, or for, the Contractor for the transportation of personnel, equipment or materials. It is agreed that such transportation will be only on boats that are making trips in connection with the Contractor's operation.

The commercial grade work boats shall be 22-foot Sentry Boston Whaler, Mako, or equal, meeting or exceeding the following minimum requirements:

DRIVE POWER:

1) Outboard-2 each 150 HP Engines
2) Fuel Tank-built in 173 gal. tank

EQUIPMENT:

1) HD Rubbing Strakes-set of four
2) Stainless Steel Cut Water
3) Heavy Duty Bow- Eye Reinforcement

4) Stern Splashwell Bulk Head
5) High patterned side rails
6) Heavy Duty Lifting Eyes
7) Twin Cylinder Steering Upgrade
8) Extra 95 amp battery dual engine
9) Push to start panel upgrade, dual engine
10) Hydraulic twin tabs
11) Full width stern seat
12) Deck utility box
13) Rubber Bumpers - 6 ea., 4" dia.
14) 30 lb. anchor with chain and line (adequate for specific site condition)

ELECTRONICS:

1) VHF/FM Radio System
2) One (1) Com 58 or equal
3) Radar system Furuno 1731 or equal
4) Depth finder digital
5) Compass Richie navigator 2 each or equal

SAFETY & EMERGENCY EQUIPMENT

1) United States Coast Guard required commercial grade safety and emergency equipment
2) Navigation lights, commercial U.S. Coast Guard approved
3) San Francisco Bay Navigation Charts appropriate for the project requirements
4) United States Coast Guard-approved life jackets for the Contractor's personnel.

United States Coast Guard-approved life jackets for the Contractor's personnel shall be provided and maintained on the boats at all times, as required by the United States Coast Guard. Life jackets for the Department's visitors and representatives will be provided by the Department at no cost to the Contractor.

The contractor shall provide for the Department's visitors and representatives safe and protected permanent vertical access, as approved by the Engineer, to all marine construction equipment being utilized for construction of the project.

The Contractor shall provide safety training relative to marine transportation to the State's and the Contractor's personnel, prior to the commencement of work. Training shall include a review of the approved U.S. Coast Guard Safety Manual by all personnel prior to using the Contractor's provided marine transportation. The Contractor shall also conduct a quarterly Marine Safety Workshop for the Department's representatives.

The Contractor shall furnish a licensed boat operator and crew members, as required for the boat's operation and in accordance with all Maritime Agreements and Laws, including, but not limited to, the regulations contained in Title 46 Code of Federal Regulation Section 16 and Sections 24 through 26. The boat operator and crew shall be furnished for 10 hours each working day.

The Contractor shall provide insurance coverage under the Federal Longshoremen's and Harbor Workers Compensation Act, the Jones Act and the Marine Act with respect to work performed from, or by use of, vehicles on any navigable water of the United States, including liability insurance for watercraft operations. At the option of the Contractor, liability insurance for watercraft operations may be covered under a separate Protection and Indemnity policy, provided the policy contains a combined single limit of at least $50,000,000 per occurrence and $50,000,000 aggregate.

The Contractor shall provide berthing facilities at the same location the Contractor utilizes for the departure of its construction crew, or at an alternate location approved by the Engineer.

The Contractor shall maintain the boats provided to the Engineer, including daily fueling, routine maintenance, equipment compliance, systems operations and the immediate repair of damage to the boats or their elements.

The boats shall remain the property of the Contractor, and shall be removed from the site of the work when no longer needed as determined by the Engineer.

The contract lump sum price paid for transportation for the engineer shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in providing transportation for the engineer as specified herein.

Payment for furnishing a boat operator and crew in excess of 10 hours within any working day will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications. No additional payment will be made for furnishing the boats in excess of 10 hours within any working day.

5-1.38 COST REDUCTION INCENTIVE

Attention is directed to Section 5-1.14, "Cost Reduction Incentive," of the Standard Specifications.

Cost reduction proposals which require re-design or analysis by the Engineer, regarding structural design details specific to the bridge retrofit work, will not be considered.

Cost reduction proposals involving modifications to other work, or to any construction sequence shown on the plans or specified in the special provisions, which do not jeopardize the structural integrity of the bridge at any time or do not affect the retrofit design of the bridge, as determined by the Engineer, may be considered.

Prior to preparing a cost reduction proposal for other work or construction sequence, the Contractor shall request a meeting with the Engineer to discuss the proposal in concept and determine whether the cost reduction proposal will be considered. Items of

discussion will also include permit issues, impact on other projects, impact on the project schedule, and review times required by the Department and other agencies.

5-1.39 FORCE ACCOUNT PAYMENT

The second, third and fourth paragraphs of Section 9-1.03A, "Work Performed by Contractor," of the Standard Specifications, shall not apply.

To the total of the direct costs computed as provided in Sections 9-1.03A(1), "Labor," 9-1.03A(2), "Materials," and 9-1.03A(3), "Equipment Rental," of the Standard Specifications, there will be added a markup of 25 percent to the cost of labor, 10 percent to the cost of materials, and 10 percent to the equipment rental.

The above markups, together with payments made for time related overhead pursuant to "Overhead" of these special provisions, shall constitute full compensation for all overhead costs for work performed on a force account basis. These overhead costs shall be deemed to include all items of expense not specifically designated as cost or equipment rental in Sections 9-1.03A(1), "Labor," 9-1.03A(2), "Materials," and 9-1.03A(3), "Equipment Rental," of the Standard Specifications. The total payment made as provided above and in the first paragraph of Section 9-1.03A, "Work Performed by Contractor," shall be deemed to be the actual cost of the work performed on a force account basis, and shall constitute full compensation therefor.

When extra work to be paid for on a force account basis is performed by a subcontractor, approved in accordance with the provisions in Section 8-1.01, “Subcontracting,” of the Standard Specifications, an additional markup of 5 percent will be added to the total cost of said extra work including all markups specified in this section "Force Account Payment". Said additional 5 percent markup shall reimburse the Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

5-1.40 OVERHEAD

The Contractor will be compensated for overhead in accordance with these special provisions.

Attention is directed to "Force Account Payment" and "Progress Schedule (Critical Path)" of these special provisions.

Section 9-1.08, "Adjustment of Overhead Costs," of the Standard Specifications shall not apply.

Time related overhead shall consist of those overhead costs, including field and home office overhead, that are in proportion to the time required to complete the work.

The quantity of time related overhead to be measured for payment will be the number of working days specified in "Beginning of Work, Time of Completion and Liquidated Damages" of these special provisions, adjusted only as a result of suspensions and adjustments of time which revise the current contract completion date and which are also any of the following:

1) suspensions of work ordered in accordance with Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications, except:

    a) suspensions ordered due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the contract; and
    b) suspensions ordered due to unsuitable weather conditions;

2) extensions of time granted by the State in accordance with the provisions of the fifth paragraph of Section 8-1.07, "Liquidated Damages," of the Standard Specifications; or
3) reductions in contract time set forth in approved contract change orders, in accordance with Section 4-1.03, "Changes," of the Standard Specifications.

The contract price paid for time related overhead shall include full compensation for time related overhead measured for payment as specified above, incurred by the Contractor and by any joint venture partner, subcontractor, supplier or other party associated with the Contractor.

No adjustment in compensation will be made for any increase or decrease in the quantities of time related overhead required, regardless of the reason for the increase or decrease. The provisions in Sections 4-1.03B, "Increased or Decreased Quantities" and 4-1.03C, "Changes in Character of the Work," of the Standard Specifications, shall not apply to time related overhead.

For progress payment purposes, the number of working days to be paid for time related overhead in each month will be the number of working days specified above to be measured for payment that the Contractor performed work on the current controlling operation or operations as specified in Section 8-1.06, "Time of Completion," of the Standard Specifications. Working days specified above to be measured for payment, on which the Contractor did not perform work on the controlling operation or operations will be measured and included for payment in the first estimate made in accordance with Section 9-1.07, "Payment After Acceptance," of the Standard Specifications.

Full compensation for overhead other than time related overhead measured and paid for as specified above, and other than overhead costs for extra work performed pursuant to Section 4-1.03D of the Standard Specifications, shall be considered as included in the various items of work and no additional compensation will be allowed therefor.

5-1.41 ENVIRONMENTALLY SENSITIVE AREAS (GENERAL)

The Contractors attention is directed to the designated Environmentally Sensitive Areas (ESA), shown on the

plans. The exact location of the boundaries of environmentally sensitive areas will be established by the Engineer.

For all ESAs except the delta smelt (located in the Carquinez Strait), high visibility boundary fencing and flagging of temporary silt fences shall be erected to define the ESAs. The purpose of the boundary fencing and silt fence flagging is to minimize disturbance and prevent encroachment upon environmentally sensitive areas (ESA). The high visibility boundary fencing shall be installed prior to any clearing and grubbing work., ESA boundaries shall be clearly marked in the field. High visibility fencing and flagging of temporary silt fences shall be used and located so that it will be obvious to heavy equipment operators. The boundary fencing shall be checked periodically and repaired or replaced as necessary during construction. Within the boundaries of an environmentally sensitive area (ESA), no project related activities except clearing and grubbing by hand shall take place. This specifically prohibits vehicle access storage or transport, storage of any materials, including hydrocarbon and lead contaminated material, or any other project related activities except clearing and grubbing.

The ESA boundaries for delta smelt are delineated on the plans, but cannot be clearly marked in the field. However, this in no way relieves the Contractor of responsibility for avoiding work activities which would disturb the delta smelt. Attention is directed to "Permits and Licenses" and "Order of Work" elsewhere in these special provisions regarding restrictions for construction activities which must occur at/in the vicinity of Piers 4 and 5 located within the limits of the ESA for the delta smelt. Full compensation for conforming to the requirements of this Section shall be considered as included in the contract prices for the various items of work and no additional compensation will be allowed therefor.

5-1.42 EQUIPMENT LOADING ON BRIDGES

The operation of equipment on bridges shall conform to the provisions in Section 7-1.02, "Weight Limitations," of the Standard Specifications and these special provisions.

Where it is necessary to operate cranes on the bridge deck or to attach lifting devices or containment structures to the existing structure, the Contractor shall submit working drawings and design calculations to the Engineer for approval, in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings" of the Standard Specifications. The working drawings and design calculations shall be signed by an engineer who is registered as a Civil Engineer in the State of California. The calculations shall show all the expected loads due to the lifting operations or containment structure and shall clearly demonstrate the capacity of the existing members to carry the additional live, dead and wind loads. All design assumptions shall be clearly stated.

No permanent attachments to the existing structure for the purpose of supporting lifting devices, equipment, paint containment structure or temporary supports will be permitted unless shown on the plans or approved in writing by the Engineer. No drilling of the existing structure for the purpose of supporting lifting devices, equipment, paint containment structure or temporary supports will be permitted unless shown on the plans or approved in writing by the Engineer. No welding to the existing structure will be permitted.

Working drawings and calculations shall be submitted sufficiently in advance of the start of the affected work to allow time for review by the Engineer and correction by the Contractor of the drawings calculations without delaying the work. Such time shall be proportional to the complexity of the work but in no case shall such time be less than 4 weeks after complete drawings and all support data are submitted.

Full compensation for conforming to the requirements of this section, including all costs involved in the submitting drawings and calculations, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

5-1.43 ESCROW OF BID DOCUMENTATION

Bid documentation shall consist of all documentary and calculated information generated by the Contractor in preparation of the bid. The bid documentation shall conform to the requirements in these special provisions, and shall be submitted to the Department and held in escrow for the duration of the contract.

In the resolution of disputes involving the project, the escrowed bid documents will be the only documents accepted from the Contractor regarding preparation of the bid.

In signing the proposal, the bidder certifies that the material submitted for escrow constitutes all the documentary information used in preparation of the bid and that he has personally examined the contents of the container and that they are complete.

The bidder shall include with the proposal, the identification of the bidder's representative authorized to present the bid documentation and the persons responsible for preparing the bidder's estimate.

Nothing in the bid documentation shall be construed to change or modify the terms or conditions of the contract.

Escrowed bid documentation will not be used for pre-award evaluation of the Contractor's anticipated methods of construction, nor to assess the Contractor's qualifications for performing the work.

Bid documentation shall clearly itemize the Contractor's estimated costs of performing the work. The documentation submitted shall be complete and so detailed as to allow for an in-depth analysis of the Contractor's estimate.

The bid documentation shall include, but not be limited to: quantity takeoffs; rate schedules for the direct costs and the time- and nontime-related indirect costs for

labor (by craft), plant and equipment ownership and operation, permanent and expendable materials, insurance and subcontracted work; estimated construction schedules, including sequence and duration and development of production rates; quotations from subcontractors and suppliers; estimates of field and home office overhead; contingency and margin for each contract item of work; and other reports, calculations and information used by the bidder to arrive at the estimate submitted with the proposal.

The Contractor shall also submit bid documentation for each subcontractor whose total subcontract exceeds $250,000. Subcontractor bid documentation shall be enclosed with the Contractor's submittal. The examination of subcontractors' bid documentation will be accomplished in the same manner as for the Contractor's bid documentation. If a subcontractor is replaced, bid documentation for the new subcontractor shall be submitted for review and escrow before authorization for the substitution will be granted. Upon request of a subcontractor, the bid documentation from that subcontractor shall be reviewed only by the subcontractor and the Department.

If the bidder is a joint venture, the bid documentation shall include the joint venture agreement, the joint venture estimate comparison and final reconciliation of the joint venture estimate.

A copy of the proposal submitted by the bidder shall be included in the bid documentation to be escrowed.

The first, second, and third apparent low bidders shall present the bid documentation for escrow at the District 04 Office, 111 Grand Avenue, Room 12-816, Oakland, CA, 44 hours following the time indicated in the "Notice to Contractors" for the opening of bids.

Bid documentation shall be submitted in a sealed container, clearly marked with the bidder's name, date of submittal, project contract number and the words, "Bid Documentation for Escrow."

Upon submittal, the bid documentation will be examined and inventoried by the duly designated representatives of the Contractor and the Department to ensure that the bid documentation is authentic, legible, and in accordance with the terms of this section "Escrow of Bid Documentation." The examination will not include review of, nor will it constitute approval of, proposed construction methods, estimating assumptions or interpretation of the contract. The examination will not alter any conditions or terms of the contract. The acceptance or rejection by the Department that the submitted bid documents are in compliance with this section "Escrow of Bid Documentation" shall be completed on the day the bid documentation is submitted by the Contractor.

At the completion of the examination, the bid documents will be sealed and jointly deposited at an agreed commercial bank. Failure to submit the actual and complete bid documentation as specified herein within the time specified shall be cause for rejection of the proposal.

Bid documentation submitted by the second and third apparent low bidder will be returned following execution and approval of the contract with the apparent low bidder. If the apparent low bid is withdrawn or rejected, upon execution and final approval of the contract or rejection of all bids, the bid documentation will be returned to any remaining unsuccessful bidders.

The escrowed bid documentation may be examined by the designated representatives of both the Department and the Contractor, at any time deemed necessary by either the Department or the Contractor to assist in the negotiation of price adjustments and change orders, or in the settlement of claims or disputes.

If requested by a Disputes Review Board, the escrowed bid documentation may be utilized to assist the Board in its recommendations.

The bid documentation submitted by the Contractor will be held in escrow until the contract has been completed, the ultimate resolution of all disputes and claims has been achieved and receipt of final payment has been accepted by the Contractor. The escrowed bid documentation will then be released from escrow to the Contractor.

The bid documentation submitted by the bidder is, and shall remain, the property of the bidder, and is subject to only joint review by the Department and the bidder. The Department stipulates and expressly acknowledges that the submitted bid documentation constitutes trade secrets and will not be deemed public records. This acknowledgment is based on the Department's express understanding that the information contained in the bid documentation is not known outside the bidder's business, is known only to a limited extent and only by a limited number of employees of the bidder, is safeguarded while in the bidder's possession, is extremely valuable to the bidder and could be extremely valuable to the bidder's competitors by virtue of it reflecting the bidder's contemplated techniques of construction. The Department acknowledges that the bid documentation includes a compilation of information used in the bidder's business, intended to give the bidder an opportunity to obtain an advantage over competitors who do not know of or use the contents of the documentation. The Department agrees to safeguard the bid documentation, and all information contained therein, against disclosure, including disclosure of subcontractor bid documentation to the Contractor and other subcontractors to the fullest extent permitted by law. However, in the event of arbitration or litigation, the bid documentation shall be subject to discovery, and the Department assumes no responsibility for safeguarding the bid documentation unless the Contractor has obtained an appropriate protective order issued by the arbitrator or the court.

Full compensation for preparing the bid documentation and presenting it for escrow shall be considered as included in the contract prices paid for the various items of work, and no additional compensation will be allowed therefor.

The cost of depositing the bid documentation in escrow at the agreed commercial bank will be paid in accordance with Section 9-1.03, “ Force Account

payment," of the Standard Specifications. No markups will be added to this cost.

SECTION 6. (BLANK)

SECTION 7. (BLANK)

SECTION 8. MATERIALS

SECTION 8-1. MISCELLANEOUS

8-1.01 PREQUALIFIED AND TESTED SIGNING AND DELINEATION MATERIALS

The Department maintains a trade name list of approved prequalified and tested signing and delineation materials and products. Approval of prequalified and tested products and materials shall not preclude the Engineer from sampling and testing any of the signing and delineation materials or products at any time.

Said listing of approved prequalified and tested signing and delineation materials and products cover the following:

MATERIALS and PRODUCTS

Temporary pavement markers
Striping and pavement marking tape
Pavement markers, reflective and non-reflective
Flexible Class 1 delineators and channelizers
Railing and barrier delineators
Sign sheeting and base materials
Reflective sheeting for barricades
Reflective sheeting for channelizers
Reflective sheeting for markers and delineators
Reflective sheeting for traffic cone sleeves
Reflective sheeting for barrels and drums

None of the above listed signing and delineation materials and products shall be used in the work unless such material or product is listed on the Department's List of Approved Traffic Products. A Certificate of Compliance shall be furnished as specified in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for signing and delineation materials and products. Said certificate shall also certify that the signing and delineation material or product conforms to the prequalified testing and approval of the Department of Transportation, Division of Traffic Operations and was manufactured in accordance with the approved quality control program.

Materials and products will be considered for addition to said approved prequalified and tested list if the manufacturer of the material or product submits to the Division of Traffic Operations a sample of the material or product. The sample shall be sufficient to permit performance of all required tests. Approval of such materials or products will be dependent upon a determination as to compliance with the specifications and any test the Department may elect to perform.

The following is a listing of approved prequalified and tested signing and delineation materials and products:

PAVEMENT MARKERS, PERMANENT TYPE

REFLECTIVE

Adelite (4"x4")
Apex (4"x4")
Pavement Markers, Inc., "Hye-Lite" (4"x4")
Ray-O-Lite, Models SS, RS, and AA (4"x4")
Ray-O-Lite, Models 2002 (2.4"x4.7")
Stimsonite, Model 88 (4" x4")

REFLECTIVE WITH ABRASION RESISTANT SURFACE

Ray-O-Lite "AA" ARS (4" x4")(Not for use in recessed applications)
Ray-O-Lite Mod. 2002 ARS (2.2"x4.7")
Stimsonite, Model 911 (4"x4")(Not for use in recessed applications)
Stimsonite, Model 944 SB (2"x4")
Stimsonite, Model 948 (2.3"x4.7")
Stimsonite, Model 953 (2.75"x4.5")(Not for use in recessed applications)

NON-REFLECTIVE FOR USE WITH EPOXY OR BITUMEN ADHESIVE

Apex Universal (Ceramic)
Highway Ceramics Inc. (Ceramic)
Zumar, TM40W/Y (Polyester)

NON-REFLECTIVE FOR USE WITH BITUMEN ADHESIVE ONLY

Apex Universal, Model 929 (ABS)
Elgin Molded Plastics, "Empco-Lite" Model 900 (ABS)
Hi-Way Safety Inc., Models P20-2000W and 2001Y (ABS)
Interstate Sales, "Diamond Back" (ABS)
Loomis Plastics, D-Dot (ABS)
Pavement Markers Inc., (Marker Supply) - Models A1107 and AY1108 (ABS)
Road Creations, Model RCB4NR (Acrylic)

PAVEMENT MARKERS, TEMPORARY TYPE

TEMPORARY MARKERS FOR LONG TERM DAY/NIGHT USE (6 Months or less)

Apex Universal, Model 924 (4"x4")
Elgin Molded Plastics, "Empco-Lite" Model 901 (4" Round)
Highway Technologies, Megalites (4"x4")
Road Creations, Model R41C (4"x4")

TEMPORARY MARKERS FOR SHORT TERM DAY/NIGHT USE (14 days or less)

Apex Universal, Model 932
Davidson Plastics, Models TOM (Standard) with Reflexite PC-1000, or (WZ) with Reflexite AC-1000 Sheeting
Hi-Way Safety Inc., Model 1280/1281 with Reflexite PC-1000
Stimsonite, Model 300 "Temporary Overlay Marker"

TEMPORARY MARKERS FOR SHORT TERM DAY/NIGHT USE (14 days or less at seal coat locations)

Apex Universal, Model 932
Davidson Plastics, Models TRPM (Standard) with Reflexite PC-1000, or (WZ) with Reflexite AC-1000 Sheeting
Davidson Plastics, Models "HH" (High Heat) TRPM (Standard) with Reflexite PC-1000, or (WZ) with Reflexite AC-1000 Sheeting
Hi-Way Safety Inc., Model 1280/1281 with Reflexite PC-1000
Stimsonite, Model 301 Chip Seal Marker

STRIPING AND PAVEMENT MARKING MATERIAL

PERMANENT TRAFFIC STRIPING AND PAVEMENT MARKING TAPE

(For use on high and low volume roadways)
Advanced Traffic Marking, Series 300 and 400
Brite-Line, Series 1000
Swarco Industries, "Director 60"
3M, "Stamark" Series 380, A420, A440 and 5730
(For use on low volume roadways only)
3M, "Stamark" Series A320 Bisymetric

TEMPORARY REMOVABLE STRIPING AND PAVEMENT MARKING TAPE

Advanced Traffic Marking, ATM Series 200
Brite-Line, Series 100
P.B. Laminations, Aztec, Grade 102
Swarco Industries, "Director-2"
3M, "Stamark" Brand, Detour Grade, Series 5710 and A620

PREFORMED THERMOPLASTIC

Flint Trading, "Premark""
Pavemark, "Hotape"

REMOVABLE TRAFFIC PAINT

Belpro, Series 250/252 and No. 93 Remover

CLASS 1 DELINEATORS

ONE-PIECE DRIVEABLE FLEXIBLE TYPE, 1200 mm (48")

Carsonite, Curve-Flex CFRM-400
Carsonite, Roadmarker CRM-375
Davidson Plastics, "Flexi-Guide 400 and 566"
GreenLine Model HWDI-66
GreenLine Model CGDI-66

SPECIAL USE FLEXIBLE TYPE, 1200 mm (48")

Carsonite, "Survivor" with 18" U-Channel anchor
FlexStake, H-D
GreenLine HWD with 18" soil anchor
GreenLine CGD with 18" soil anchor
Safe-Hit with 8" pavement anchor (SH248-GPR and SHAI-08-PI)
Safe-Hit, with 15" soil anchor (SHA5-15C-GL)
Safe-Hit, with 18" soil anchor (SH248-GPR and SHAI-18C-PL)

SURFACE MOUNT FLEXIBLE TYPE, 1200 mm (48")

Bent Manufacturing Co., "Masterflex" Model MF-180EX-48"
Carsonite, "Super Duck II"
FlexStake, Surface Mount H-D

CHANNELIZERS

SURFACE MOUNT TYPE 900 mm (36")

Bent Manufacturing Co., "Masterflex" Models MF-360-36 (Round) and MF-180-36" (Flat)
Carsonite, "Super Duck" (Flat SDF-436, Round SDR-336)
Carsonite, Super Duck II "The Channelizer"
FlexStake, Surface Mount H-D
GreenLine SMD-36
Repo, Models 300 and 400
Safe-Hit, Guide Post, Model SH236SMA, with glue down base
The Line Connection, "Dura-Post" Model DP36-3C

TYPE "K" OBJECT MARKERS 450 mm (18")

Carsonite, Model SMD-615

Repo, Models 300 and 400
Safe-Hit, Model SH718SMA
The Line Connection, Model DP21-4K (Vertical configuration only)

TYPE "Q" OBJECT MARKERS, 450-600 mm (18-24")

Carsonite, Super Duck II
Repo, Models 300 and 400
Safe-Hit, Models SH824SMA--WA and SH824GP3--WA
The Line Connection, Model "DP21-4Q"

CONCRETE BARRIER MARKERS (For use to the left of traffic.**)**

IMPACTABLE TYPE

Astro Optics “FB”
Davidson Plastics, Model PCBM-12
Duraflex Corp., "Flexx 2020" and "Electriflexx"

NON-IMPACTABLE TYPE

Astro-Optics, JD Series
Stimsonite, Model 967 (with 3 1/4" Acrylic cube corner reflector)
Stimsonite, Model 967LS
Vega Molded Products, Models GBM and JD

THRIE BEAM BARRIER MARKERS (For use to the left of traffic**.)**

Duraflex Corp., "Railrider"
Davidson Plastics, "Mini" (3"x10")

CONCRETE BARRIER DELINEATORS 400 mm (16"). (For use to the right of traffic. When mounted on top of barrier, places top of reflective element at 48" [1200 mm]**)**

Davidson Plastics, Model PCBM T-16
Safe-Hit, Model SH216RBM

SOUND WALL DELINEATOR (On vertical surface, places top of reflective element at 48" [1200 mm].**)**

Davidson Plastics, PCBM S-36

GUARD RAILING DELINEATOR 685 mm (27") Wood Post Type. (For use to the right or left of traffic. Places reflective element at 48" [1200 mm].**)**

Carsonite, Model 427
Davidson Plastics FG 427 and FG-527
GreenLine GRD 27-inch
Safe-Hit, Model SH227GRD

GUARD RAILING DELINEATOR 685 mm (27") Steel Post Type. (For use to the right or left of traffic. Places reflective element at 48" [1200 mm].**)**

Carsonite, Model CFGR-327 with CFGRBK300 Mounting Bracket

REFLECTIVE SHEETING FOR:

CHANNELIZERS, BARRIER MARKERS AND DELINEATORS

3M, High Intensity (Long Term)
Reflexite, PC-1000, Metalized Polycarbonate (Long Term)
Reflexite, AC-1000, Acrylic (Long Term)
Reflexite, AP-1000, Metalized Polyester (Short Term)
Stimsonite, Series 4500 (For Carsonite CurveFlex and Roadmarker delineators only)

TRAFFIC CONES

330 mm (13") Sleeves
Reflexite SB (Polyester), Vinyl or "TR" (Semi-transparent)

100 and 150 mm (4" and 6") Sleeves
3M Series 3840
Reflexite Vinyl

BARRELS AND DRUMS

Reflexite, "Super High Intensity"
3M Series 3810

BARRICADES

Type I, Engineer Grade
American Decal, Adcolite
Avery Dennison, 1500/1600
Nikkalite, 8100 Series
3M, Scotchlite, Series CW

SIGNS

Type II, Super Engineer Grade (State-Furnished Signs Only)
Avery Dennison, "Fasign" 2500 Series
Kiwalite, Type II
Nikkalite 1800 Series

Type III, High Performance

3M, High Intensity, Series 3870

Type IV, High Performance
Stimsonite, Series 4200

Type VI, Roll-Up Signs
Reflexite, Vinyl

Note: Sheeting Types conforming to the requirements of ASTM Designation: D 4956-93B

SIGN SUBSTRATE FOR CONSTRUCTION AREA SIGNS

Aluminum
Fiberglass Reinforced Plastic (FRP)
Sequentia, "Polyplate"
Fiber-Brite

8-1.02 STATE-FURNISHED MATERIALS

Attention is directed to Section 6-1.02, "State-Furnished Materials," of the Standard Specifications and these special provisions.

The following materials will be furnished to the Contractor:

Sign panels for roadside signs and sign overlays for overhead sign structures.

Disks for survey monuments.

Marker panels, including reflectors, for Type N object markers.

Pile load test rods(above connection plate).

Model 170 controller assemblies (including wired cabinet and controller unit).

Self-adhesive reflective numbers and edge sealer for numbering lighting equipment.

Completely wired controller cabinets (with auxiliary equipment but without controller unit) will be furnished to the Contractor at the Caltrans Maintenance Station, 30 Rickard Street, San Francisco, CA 94134.

8-1.03 ADHESIVE FOR BONDING REFLEX REFLECTORS TO PORCELAIN ENAMEL TRAFFIC SIGNS

Adhesive shall be an RTV (room temperature vulcanizing) one - component silicone - rubber adhesive. Adhesive shall be compounded to be highly resistant to ozone, ultraviolet light, and extremes of ambient temperature; shall possess good chemical resistance; and shall exhibit excellent overall weather ability. The cured material shall remain flexible and maintain its adhesive qualities indefinitely.

The adhesive shall possess the following physical properties:

Property	Value	Test Method
Color	Translucent	Visual Determination
Consistency	Soft, spreadable thixotropic paste	Visual Determination
Tack-Free Time	One hour maximum	Finger-touch test
Durometer, Shore A	25-40	ASTM Designation: D 2240(1)
Tensile Strength, psi	300 minimum	ASTM Designation: D 412(1)
Elongation, Percent	350 minimum	ASTM Designation: D 412(1)
Specific Gravity	1.07±0.02	ASTM Designation: D 792, Method A-1 (1)(2)
Shear-Adhesion, psi	150 minimum	(3)

(1) After specimen has cured for a total of 48 hours.
(2) One-inch square specimen.
(3) Test method on file and available at the Transportation Laboratory.

When stored at temperatures below 80° F., the adhesive shall have a shelf life of at least one year.

A Certificate of Compliance as provided in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications, shall be furnished for each lot of adhesive supplied.

SECTION 8-2. CONCRETE

8-2.01 TRANSPORTING MIXED CONCRETE

The ninth and tenth paragraphs in Section 90-6.03, "Transporting Mixed Concrete," of the Standard Specifications are amended to read:

Each load of ready-mixed concrete delivered at the jobsite shall be accompanied by a ticket showing the mix identification number, non-repeating load number, date and time at which the materials were batched, the total amount of water (gallons) added to the load and for transit-mixed concrete, the reading of the revolution counter at the time the truck mixer is charged with cement. This ticket shall also show the actual scale weights (pounds) for the ingredients batched or the calculated portland cement concrete volume (cubic yards). Theoretical or target batch weights shall not be used as a substitute for actual scale weights. When showing a calculated portland cement concrete volume on the delivery ticket, the

Contractor shall maintain and have available a record of the following information for each batched load:

1. Mix identification number; specific to the contract.
2. Load number; shall match the load number on the delivery ticket.
3. Date and time the load was batched.
4. Actual batch weight (pounds) for each ingredient.
5. Any water (gallons) added at the plant, in addition to the water proportioned for the batch.

When requested, the Contractor shall submit the recorded information for calculated portland cement concrete volumes to the Engineer. The information shall be provided in printed form, or if acceptable to the Engineer, data may be submitted on a 3.5-inch diskette. If a diskette is submitted, the data shall be in a tab-delimited text format or data interchange format (DIF), readable in both the MS-DOS and MACINTOSH systems.

8-2.02 ADMIXTURES

Section 90-4.02, "Materials," of the Standard Specifications is amended by adding the following material to those listed:

Silica Fume—ASTM Designation: C 1240, with reduction of mortar expansion of 80 percent, minimum, using the portland cement from the proposed mix design.

The first subparagraph of the first paragraph in Section 90-4.05, "Optional Use of Chemical Admixtures," of the Standard Specifications is deleted and the second subparagraph of the first paragraph in Section 90-4.05 is amended to read:

When a water-reducing admixture or a water-reducing and retarding admixture is used, the cement content specified or ordered may be reduced by a maximum of 5 percent by weight except that the resultant cement content shall be not less than 470 pounds per cubic yard.

Section 90-4.08, "Required Use of Mineral Admixtures," of the Standard Specifications is amended by adding the following before the first paragraph:

Mineral admixture will be required in the manufacture of concrete containing aggregate that is determined to be "deleterious" or "potentially deleterious" as specified in Section 90-2.02, "Aggregates". The calcium oxide content of mineral admixtures shall not exceed 10 percent. Where Section 90-1.01, "Description," specifies a maximum cement content in pounds per cubic yard, the total weight of portland cement and mineral admixture per cubic yard shall not exceed the specified maximum cement content. The concrete shall conform to one of the following:

1. The concrete containing "Type IP (MS) Modified" cement shall conform to the provisions in Section 90-2.01, "Portland Cement," except that the mineral admixture used in the manufacture of "Type IP (MS) Modified" cement shall have a calcium oxide content not exceeding 2 percent, and an alkali content not exceeding 4 percent. The amount of cement shall be sufficient to satisfy the specified minimum cement content.
2. When the calcium oxide content in a mineral admixture does not exceed 2 percent, the portland cement in the concrete shall conform to the provisions in Section 90-2.01, "Portland Cement," with an amount not less than 85 percent of the amount required to satisfy the specified minimum cement content. The concrete shall also contain the mineral admixture in an amount not less than 15 percent, by weight, of the amount of cement required to satisfy the specified minimum cement content. The mineral admixture shall conform to the requirements in ASTM Designation: C 618, Class N or F, except that the alkali content shall not exceed 4 percent.
3. When the calcium oxide content in a mineral admixture is between 2 percent and 10 percent, the portland cement in the concrete shall conform to the provisions in Section 90-2.01, "Portland Cement," with an amount not less than 85 percent of the amount required to satisfy the specified minimum cement content. The concrete shall also contain the mineral admixture in an amount not less than 30 percent, by weight, of the amount of cement required to satisfy the specified minimum cement content. The mineral admixture shall conform to the requirements in ASTM Designation: C 618, Class N or F, except that the alkali content shall not exceed 4 percent.
4. The portland cement in the concrete shall conform to the provisions in Section 90-2.01, "Portland Cement," with an amount required to satisfy the specified minimum cement content. The concrete shall also contain a mineral admixture in an amount not less than 10 percent, by weight, of the amount of cement required to satisfy the specified minimum cement content. The mineral admixture shall conform to these provisions for silica fume.

8-2.03 ROADWAY DECK SLAB REQUIREMENTS

The amount of free water used in concrete for roadway deck slabs of highway bridges and structure

approach slabs shall not exceed 300 pounds per cubic yard, plus 20 pounds for each required 100 pounds of cement in excess of 658 pounds per cubic yard.

The temperature of mixed concrete for roadway deck slabs of highway bridges, immediately before placing, shall be not less than 50° F. nor more than 80° F. Aggregates and water shall be heated or cooled as necessary to produce concrete within these temperature limits. Neither aggregates nor mixing water shall be heated to exceed 150° F. If ice is used to cool the concrete, discharge of the mixer will not be permitted until all ice is melted.

8-2.04 PIER CONCRETE REQUIREMENTS

Low permeability, flowability and corrosion resistance are required for the concrete exposed to seawater at Piers 2 and 3 and at the footing of Pier 5.

Mineral admixtures(Fly Ash, Class F) shall be used in the concrete mix in accordance with Sections 90-4.02 "Materials" and 90-4.08 "Required Use of Mineral Admixtures" of the Standard Specifications. No less than 10 percent and no more than 20 percent of the cement may be replaced with mineral admixtures. The minimum cement or minimum cement plus mineral admixture content shall not be reduced. Chemical and mineral admixtures shall be produced by the same manufacturer and shall be compatible for use in the same mix.

Chemical admixtures(Type F, Water reducing, High Range and Air-entraining) shall be used mix in accordance with Sections 90-4.02 "Materials," 90-4.04 "Required Use of Chemical Admixtures and Calcium Chloride" and 90-4.06 "Required Use of Air-entraining Admixtures" of the Standard Specifications, except that calcium chloride shall not be used and admixtures shall not contain calcium chloride. Material tests in accordance with ASTM C494, Section 11.4, shall be performed to verify the use of the admixtures for this application.

SECTION 8-3. WELDING

8-3.01 FIELD WELDING QUALITY CONTROL

Field welding quality control shall conform to the requirements in the AWS welding codes, Standard Specifications and these special provisions.

Wherever reference is made to the following AWS welding codes in the Standard Specifications, on the plans or in these special provisions, the year of adoption for these codes shall be as listed:

AWS Code	Year of Adoption
D1.1	1996
D1.4	1992
D1.5	1995

All requirements of the AWS welding codes shall apply unless specified otherwise in the Standard Specifications, on the plans or in these special provisions. Wherever the abbreviation AWS is used it, it shall be equivalent to the abbreviations ANSI/AWS or ANSI/AASHTO/AWS.

Welding performed at other than an established and permanent fabrication facility shall be considered field welding.

When any type of field welding, including that of steel piles, bar reinforcement, steel structures, column casings and miscellaneous metal, is to be performed, the Contractor shall designate in writing a welding Quality Control Manager (QCM). The QCM shall be responsible directly to the Contractor for the quality of all field welding, including materials and workmanship, performed by the Contractor and all subcontractors.

The QCM shall not be employed or compensated by any subcontractor, or by other persons or entities hired by subcontractors, who will provide other services or materials for the project. The QCM may be an employee of the Contractor.

All welding inspection personnel and nondestructive testing firms to be used in the work shall not be employed or compensated by any subcontractor, or by other persons or entities hired by subcontractors, who will provide other services or materials for the project.

The QCM shall be the sole individual responsible to the Contractor for submitting and receiving all correspondence and required submittals and reports regarding field welding, to and from the Engineer.

Prior to submitting the Quality Control Plan required herein, a pre-welding meeting shall be held between the Engineer, Contractor and any welding subcontractors to be used in the work to discuss the requirements for the Quality Control Plan.

At least 7 calendar days prior to performing any field welding, the Contractor shall submit to the Engineer for approval, a separate Quality Control Plan (QCP) for each item of work for which field welding is to be performed. The plan shall include the following:

1. The name of the welding firm and the nondestructive testing firm to be used;
2. A complete Quality Assurance Manual (QAM) prepared by the nondestructive testing firm that shall include equipment, testing procedures, the Written Practice of the nondestructive testing firm, and names and qualifications of all personnel to be used;
3. The name of the QCM and the names and qualifications of Quality Control Inspectors and Assistant Quality Control Inspectors to be used;
4. The methods and frequencies for performing all required quality control procedures as required by the specifications including:

    (a) all visual inspections;
    (b) all nondestructive testing including radiographic geometry, penetrameter selection and shims, film quality, film processing, radiograph identification and

marking system, and film interpretation and reports; and

(c) calibration procedures and calibration frequency for all equipment;

5. A system for the identification and tracking of all welds, nondestructive testing and any required repairs, and a procedure for the reinspection of any repaired welds. The system shall have provisions for 1) permanently identifying each weld and the person who performed the weld and 2) placing all identification and tracking information on each radiograph;
6. All weld repair procedures;
7. The welding procedure specification (WPS), including documentation of any required Procedure Qualification Record (PQR) tests performed to qualify the specification and verification of the tests;
8. Documentation of all certifications for welders who will be used, including all tests performed to qualify the welders and verification of the tests; and
9. One copy each of all applicable AWS welding codes that will be used. These codes shall become the permanent property of the Department.

The Engineer shall have 7 calendar days to review the QCP submittal after a complete plan has been received. No field welding shall be performed until the QCP is approved in writing by the Engineer. Should the Engineer fail to complete the review within this time allowance and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in reviewing the QCP, the delay will be considered a right of way delay as specified in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

Additional welders, not listed in the approved QCP, shall not be used in the work until an amended QCP, showing documentation of all certifications for these welders, including all tests performed to qualify these welders, verification of the tests, and an updated system for the identification and tracking of all welds, is submitted to, and approved in writing by the Engineer. The Engineer shall have 2 working days to complete the review of the amended QCP.

The Contractor shall submit to the Engineer 3 copies of the approved QCP and 3 copies of any amended QCPs.

A daily production log for field welding shall be kept by the QCM for each day that field welding is performed. The log shall clearly indicate the locations of all welding, and shall include the welders' names, amount of welding performed, and any testing or repair work performed, at each location. The daily report from each Quality Control Inspector shall also be included in the log.

It is expressly understood that the Engineer's approval of the Contractor's QCP shall not relieve the Contractor of any responsibility under the contract for the successful completion of the work in conformity with the requirements of the plans and specifications. The Engineer's approval shall not constitute a waiver of any of the requirements of the plans and specifications nor relieve the Contractor of any obligation thereunder, and defective work, materials and equipment may be rejected notwithstanding approval of the QCP.

The following items shall be submitted in writing to the Engineer within 7 calendar days following the performance of any field welding:

1. Reports of all visual weld inspections and nondestructive testing;
2. Radiographs and radiographic reports;
3. Documentation that the Contractor has evaluated all radiographs, corrected any deficiencies, and radiographed any required additional repair welds; and
4. Daily production log.

All reports regarding nondestructive testing, including radiographs, shall be signed by both the nondestructive testing technician and the person that performed the review, and then submitted directly to the QCM for review and signature prior to submittal to the Engineer. Corresponding names shall be clearly printed or type written next to all signatures.

The Engineer shall review the above items to determine if the Contractor is in conformance with the QCP. The Engineer shall be allowed 7 calendar days to review the above items and respond in writing after all the required items have been received. Prior to receiving notification from the Engineer of the Contractor's conformance with the QCP, the Contractor may encase in concrete or cover any field welds for which the above items have been submitted. However, should the Contractor elect to encase or cover those welds prior to receiving notification from the Engineer, it is expressly understood that the Contractor shall not be relieved of the responsibility for incorporating material in the work that conforms to the requirements of the plans and specifications. Any material not conforming to these requirements will be subject to rejection. Should the Contractor elect to wait to encase or cover any field welds pending notification by the Engineer, and should the Engineer fail to complete the review and provide notification within this time allowance, and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in notification, the delay will be considered a right of way delay as specified in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

Sections 6.1.1 through 6.1.3.3 of AWS D 1.1, Sections 7.1.1 and 7.1.2 of AWS D 1.4, and Sections 6.1.1.1 through 6.1.3.3 of AWS D 1.5 are replaced with the following:

Quality Control (QC) is the responsibility of the Contractor. As a minimum, the Contractor shall

perform inspection and testing prior to welding, during welding and after welding as specified in this section and additionally as necessary to ensure that materials and workmanship conform to the requirements of the contract documents.

The Quality Control (QC) Inspector is the duly designated person who performs inspection, testing, and quality matters for all field welding.

Quality Assurance (QA) is the prerogative of the Engineer. The QA Inspector is the duly designated person who acts for and on behalf of the Engineer.

All QC Inspectors shall be responsible for quality control acceptance or rejection of materials and workmanship, and shall be currently certified as AWS Certified Welding Inspectors (CWI) in accordance with the provisions of AWS QC1, "Standard and Guide for Qualification of Welding Inspectors."

The QC Inspector may be assisted by an Assistant QC Inspector provided that this individual is currently certified as an AWS Certified Associate Welding Inspector (CAWI) in accordance with the provisions of AWS QC1, "Standard and Guide for Qualification of Welding Inspectors," or has equivalent qualifications. The QC Inspector shall monitor the Assistant QC Inspector's work, and shall be responsible for signing all reports.

When the term "Inspector" is used without further qualification, it shall refer to the QC Inspector.

Section 6.14.7, "Personnel Qualification," of AWS D 1.1, Section 7.7.6, "Personnel Qualification," of AWS D 1.4 and Section 6.1.3.4, "Personnel Qualification," of AWS D 1.5 are amended to read:

Personnel performing nondestructive testing shall be qualified in accordance with the current edition of the American Society for Nondestructive Testing Recommended Practice No. SNT-TC-1A and the Written Practice of the nondestructive testing firm. Only individuals qualified for NDT Level II shall perform nondestructive testing and prepare written reports.

Section 6.5.4, "Scope of Examination," of AWS D 1.1 and Section 7.5.4 of AWS D 1.4 are amended to read:

The QC Inspector shall inspect and approve the joint preparation, assembly practice, welding techniques, and performance of each welder, welding operator, and tack welder to make certain that the applicable requirements of this code are met.

Section 6.5.4, of AWS D 1.5 is amended to read:

The QC Inspector shall inspect and approve the joint preparation, assembly practice, welding techniques, and performance of each welder, welding operator, and tack welder to make certain that the applicable requirements of this code are met. The QC Inspector shall examine the work to make certain that it meets the requirements of section 3 and 9.21. The size and contour of welds shall be measured using suitable gages. Visual inspection for cracks in welds and base metal, and for other discontinuities should be aided by strong light magnifiers, or such other devices as may be helpful. Acceptance criteria different from those specified in this code may be approved when approved by the Engineer.

The Engineer shall have the authority to verify the qualifications of any welder, Quality Control Inspector, or NDT personnel to specified levels by retests or other means.

A sufficient number of QC Inspectors shall be provided to ensure continuous inspection when any field welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors continually present on all shifts when any field welding is being performed, or (2) having a QC Inspector within such close proximity of all welding operations that inspections by the QC Inspector of each operation shall not lapse for a period exceeding 30 minutes.

Inspection and approval of the joint preparation, assembly practice, welding techniques, and performance of each welder, welding operator, and tack welder shall be documented by the QC Inspector on a daily basis for each day that field welding is performed.

The QC Inspector shall provide reports to the QCM on a daily basis for each day that field welding is performed.

When any welding problems or deficiencies are discovered, the Engineer shall be notified immediately of them and also of the proposed repair procedures to correct them. The Engineer shall have 2 working days to review these procedures. No remedial work shall begin until the repair procedures are approved in writing by the Engineer. Should the Engineer fail to complete the review within this time allowance and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in reviewing the proposed repair procedures, the delay will be considered a right of way delay as specified in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

When field welding is performed using joint details that are not prequalified by the applicable AWS codes, all welders using these details shall perform a qualification test plate using the approved WPS variables and the joint detail to be used in production. The test plate shall be the maximum thickness to be used in production. The test plate shall be mechanically or radiographically tested as directed by the Engineer. Mechanical and radiographic testing and acceptance criteria shall be as specified in the applicable AWS codes.

The Period of Effectiveness for welder qualifications for welders who are performing field welding shall be a maximum of 3 years for the same weld process and type.

All qualification tests for welders who will be performing field welding shall be witnessed by the Engineer or the Engineer's authorized representative.

Section 6.6.5, "Nonspecified Nondestructive Testing Other Than Visual," of AWS D 1.1, Section 6.6.5 of AWS D 1.4 and Section 6.6.5 of AWS D 1.5 shall not apply.

For any field welding, the Engineer may direct the Contractor to perform nondestructive testing that is in addition to the visual inspection or nondestructive testing specified in the AWS welding codes, in the Standard Specifications or in these special provisions. Additional nondestructive testing required by the Engineer will be paid for as extra work in accordance with Section 4-1.03D, "Extra Work," of the Standard Specifications.

All required repair work to correct field welding deficiencies, whether discovered by the required visual inspection or nondestructive testing or by additional nondestructive testing directed by the Engineer, shall be at the Contractor's expense.

At the completion of all field welding, the QCM shall furnish to the Engineer certificates of compliance in accordance with Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for each item of work for which field welding was performed. The certificate shall state that all of the materials and workmanship incorporated in the work, and all required tests and inspections of this work, have been performed in accordance with the details shown on the plans and the provisions of the Standard Specifications and these special provisions.

Full compensation for conforming to all of the requirements of this section, Field Welding Quality Control, shall be considered as included in the contract prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

SECTION 9. DESCRIPTION OF BRIDGE WORK

The bridge work to be done consists, in general, of earthquake retrofitting portions of the following structures as shown on the plans:

CARQUINEZ BRIDGE MAIN SPANS "A4E"
(Bridge No. 23-15 R)
An approximately 3,350 feet long, five span, steel cantilever truss structure with concrete deck

CARQUINEZ BRIDGE APPROACH SPANS "A4E" LINE
(Bridge No. 23-15 R)
An approximately 1795 feet long, twelve span, steel girder structure with concrete deck

CARQUINEZ BRIDGE ON RAMP "D" LINE
(Bridge No. 23-15 R)
An approximately 898 feet long, six span, steel girder structure with concrete deck

SECTION 10. CONSTRUCTION DETAILS

SECTION 10-1. GENERAL

10-1.01 ORDER OF WORK

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

General.--Suggested sequences of construction are shown on the plans. These sequences are shown for information only. They may not show all work items or limits of work required and shall not be construed to be a project requirement. The Contractor shall submit and be responsible for developing a workable sequence of construction for this project.

A first order of work shall be installing and surveying benchmarks to be reset. Benchmarks shall be reset prior to doing any pile installation on the pier where the benchmarks are located.

Another first order of work will be to construct a trestle and cofferdam at Pier 5. This work must be completed prior to March 31 in accordance with the US Army Corps of Engineer permit.

Attention is directed to the provisions in Section "Steel Structures", of these special provisions where the Contractor shall produce the in-field survey of the as-built dimensions and details of the steel structures which require modification. This survey and the working drawings shall be a first order of work.

Attention is directed to Section "Temporary Supports" of these special provisions. At the locations shown on the plans, temporary supports and temporary bracing shall be in place prior to beginning removal of the existing bearings. Attention is directed to "Railroad Relations and Insurance," of these special provisions for additional requirements for construction over railroads.

All work in water at Piers 4 and 5 shall be limited to the period between December 1 and March 31 to minimize impacts on the Delta smelt, a federally listed threatened species.

Construction on Bents "A10E" through "A13E" on the C&H Sugar Company property shall be started and completed one at a time.

A first order of work shall be to place the order for the traffic signal equipment. The Contractor shall furnish the Engineer with a statement from the vendor that the order for said equipment has been received and accepted by said vendor.

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

Prior to commencement of the traffic signal functional test at any location, all items of work related to signal control shall be completed and roadside signs and

all pavement delineation and pavement markings shall be in place at that location.

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

Attention is directed to "Cooperation" of these special provisions for requirements related to protection and relocation of the PG&E's 26 inch diameter high pressure gas line and Pacific Bell's fiber optic cable.

Attention is directed to "Environmentally Sensitive Areas" of these special provisions regarding installation of temporary high visibility boundary fence around environmentally sensitive areas before starting any work around these areas.

Before obliterating any pavement delineation that is to be replaced on the same alignment and location, as determined by the Engineer, such pavement delineation shall be referenced by the Contractor, with a sufficient number of control points to reestablish the alignment and location of the new pavement delineation. The references shall also include the limits or changes in striping pattern, including one- and two-way barrier lines, limit lines, crosswalks and other pavement markings. Full compensation for referencing pavement delineation shall be considered as included in the contract prices paid for new pavement delineation and no additional compensation will be allowed therefor.

At the end of each working day if a difference in excess of 0.15-foot exists between the elevation of the existing pavement and the elevation of any excavation within 8 feet of the traveled way, material shall be placed and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose, however, once the placing of the structural section commences, structural material shall be used. The material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 4:1 or flatter to the bottom of the excavation. Full compensation for placing the material on a 4:1 slope, regardless of the number of times it is required, and subsequent removing or reshaping of the material to the lines and grades shown on the plans shall be considered as included in the contract price paid for the materials involved and no additional compensation will be allowed therefor. No payment will be made for material placed in excess of that required for the structural section.

At locations exposed to public traffic where guard railings or barriers are to be constructed, reconstructed, or removed and replaced, the Contractor shall schedule his operations so that at the end of each working day there shall be no post holes open nor shall there be any railing or barrier posts installed without the blocks and rail elements assembled and mounted thereon.

Temporary crash cushion modules and temporary railing (Type K) shall be in place at locations shown on the plans prior to starting any adjacent construction activities.

Approach Span "A4E" and On Ramp "D" Lines:

A first order of work shall be performing the pile load testing. Pile load testing shall proceed in the following order: load testing at Bent A12E, then load testing at Bent A9E and finally, load testing at Bent A8E.

Work at Abutment 2A shall be performed without interrupting the traffic on the Approach "A4E" Line, except as noted otherwise in these special provisions or directed by the Engineer.

A first order of work shall be to furnish preconstruction test panels for shotcrete. Shotcrete test panels shall be completed and approved by the Engineer prior to construction of production shotcrete. Shotcrete on the faces of the bent columns where the steel column casings are installed shall not begin until the unit of the column casing assembly has been completely inspected and accepted by the Engineer in writing.

The "A4E" Line Approach Spans shall be closed to all traffic during the removal of the bolts holding the Span 13E stringers to the floor beams until the new bolts holding the retrofit "T's" and Span 13E stringers to the floor beams are installed.

A first order of work shall be completion of load test pile construction and testing. Pile load testing shall be completed prior to construction of production piles, with the exception of test pile reaction piles to be incorporated into the completed structure.

The Contractor shall allow local businesses to relocate parking from the vicinity of Bent 12 to the vicinity of Bent 11 before beginning retrofit construction at Bent 12. The Contractor shall allow local businesses to relocate parking from the vicinity of Bent 11 to the vicinity of Bent 12 before beginning retrofit construction at Bent 11.

A 26-inch-diameter gas line will be relocated by others from Span 13 and Bent 13 of Approach A4E to Pier 5 of the A4E Main Spans, and from the west side of the A4E Main Spans to the east side of the A4E Main Spans. Retrofit of Bent 13 and the hinge in Span 13 shall not be initiated until the gas line has been relocated.

The Contractor shall furnish and install pipe supports for the relocated high pressure gas line as specified in Section "Miscellaneous Metal (Bridge)" of these special provisions before the high pressure gas line relocation work (by others) begins.

Gas line relocation: The Contractor shall complete all work at the outside face of the east truss before the existing 26-inch-diameter high-pressure gas line is relocated(by others) from the west side of bridge to the east side of bridge, including all work at the bottom chord between panel points L29 to L30, L44 to L45, L71 to L72, and L86 to L87. The gas line shall be relocated (by others) before beginning work on outside face of west truss. Also see additional provisions for work on the lower chords. The Contractor shall be responsible for coordinating

the gas line relocation(by others) with the construction at Bent A13E of the Approach Span "A4E" Line and Bent D6 of the "D" Line.

The Contractor shall remove interferences on the east side of the bridge before the high-pressure gas line is relocated (by others). Interferences include bridge appurtenances such as maintenance ladders, maintenance platforms, seismic instrumentation, light beacon, and water drain near Abutment 1.

The Contractor shall complete concrete seismic upgrade work on Pier 5 before or concurrently with installing pipe supports on Pier 5.

A span shall not be left on temporary supports for a period longer than 40 working days. The Contractor's attention is directed to the need to provide longitudinal restraint where work is to be done on the fixed end bearings of a span. Restraint shall be provided in accordance with "Temporary Supports" of these special provisions.

New or existing restrainers shall be in place on at least one end of each span at all times. All removal and replacement or restrainers shall be done symmetrically about the center line of the existing bridge.

The bottom edge of the existing bridge footings shall be removed to expose the existing footing reinforcing prior to drilling for the CIDH concrete piles. Pile locations may be adjusted up to 4 inches, as approved by the Engineer, to pass extensions of existing footing reinforcing through CIDH vertical reinforcing as shown on the drawings.

Main Span "A4E":

A first order of work shall be to initiate design, manufacture and testing of shock transmission devices.

Gas line relocation: The Contractor shall complete all work at the outside face of the east truss before the existing 26-inch-diameter high-pressure gas line is relocated(by others) from the west side of bridge to the east side of bridge, including all work at the bottom chord between panel points L29 to L30, L44 to L45, L71 to L72, and L86 to L87. The gas line shall be relocated (by others) before beginning work on outside face of west truss. Also see additional provisions for work on the lower chords. The Contractor shall be responsible for coordinating the gas line relocation(by others) with the construction at Bent A13E of the Approach Span "A4E" Line and Pier 5.

Attention is directed to "Bridge Utility and Maintenance Equipment Work" elsewhere in these special provisions. Facilities that are known to be affected by the pipe support work include maintenance ladders and platforms, light beacon, seismic instrumentation, and a water drain near Abutment 1.

The Contractor shall complete concrete seismic upgrade work on Pier 5 before or concurrently with installing pipe supports on Pier 5.

Truss and Tower Member Connections: When gusset plates are to be removed from both sides of a joint, construction shall be limited to one side of the connection at a time, except as noted below or on the plans.

Top Lateral Cross-Bracing: At top lateral cross bracing, gusset plates are located on two faces of the panel, the top face and the bottom face. All retrofit of gusset plates within a panel shall be accomplished one face at a time, either all the top face gusset plates shall be retrofit first or all the lower face gusset plates shall be retrofit first. A panel shall be defined as the structure between two adjacent even-numbered panel points, inclusive of the transverse struts at the panel points.

Sway/Portal Braces: No work is permitted on connections of sway or portal braces within any span while any connections within the top lateral bracing of that span are partially or completely disassembled. For this requirement, the superstructure is considered to consist of two anchor spans, four cantilever spans, two suspended spans, and one tower span.

Shock Transmission Devices and Bottom Chord Replacement: Complete chord replacement and shock transmission device work at one end of a suspended span before beginning work at the opposite end of that suspended span. Work shall not occur on both east and west chords near a suspended span simultaneously.

Bottom Laterals: At least one cross brace, defined as a horizontal member extending from one chord through a floor beam to the other chord, shall have all top gussets or all bottom gussets completely bolted at all times. These members and gussets required to be in place may be existing construction, new construction, or a combination of new and existing construction.

Work on bottom chords between panel points L44 and L46 shall not coincide with work on bottom chord lateral bracing between panel points L44 and L46, and work on bottom chords between panel points L70 and L72 shall not coincide with work on bottom chord lateral bracing between panel points L70 and L72.

Truss Anchors/Sliding Bearing Devices: At Abutment 1 and at Pier 5, complete installation of new bearing device at one chord before removal of existing truss anchor at opposite chord. Work may proceed on truss anchors at Abutment 1 and Pier 5 concurrently.

Towers 2 and 4: Connect existing base plate to existing masonry plate before removing lateral or chevron brace connections. Install temporary vertical bracing before removing connections of lower tier (between elevations 18.0 and 59.0) chevron braces. At each tower, only one lower tier chevron brace may be disconnected at one time. Complete work on all lower tier chevrons, transverse horizontal struts at elevation 22.0, and horizontal cross bracing at elevation 22.0 before removing existing north-south horizontal struts at elevation 22.0 between tower legs.

At each tower, complete all work on lower tier chevrons, all tower base shear locks, and transfer girders before raising tower legs or otherwise modifying the base of the tower legs. Raise or lower only one tower leg at a time. Close the bridge to traffic while raising or lowering is in progress.

Tower 3: At each tower leg complete bolting of exterior hold-down girder to leg, longitudinal horizontal strut, and longitudinal chevron before disassembly of gusset plate connection at interior of tower leg.

Existing horizontal cross braces at elevation 22.0 and elevation 88.07 may be used to brace the tower during construction. Stage work to maintain at least one existing brace per elevation between panel points 56 and 58 and one existing brace per elevation between panel points 58 and 60.

Tower 3 Transverse Chevrons: At each transverse chevron braced frame install temporary vertical support before removing the connection of the lower tier (between elevation 18.0 and 56.2) chevron braces. Only one lower tier transverse chevron may be disconnected at a time.

Tower 3 connection to bottom chord, panel point L58: Work on the tower diagonal connections to the bottom chord at panel point L58 at one side of the structure shall be complete before disconnecting the tower diagonal to bottom chord connection at the opposite side of the structure. Work on the tower diagonal connections to bottom chords at panel point L58 shall not coincide with work on the bottom laterals between panel points L56 and L60.

Top of Pier No. 5: Prior to coring vertical holes in the top of Pier No. 5, core 3" diameter horizontal holes and pressure grout horizontal threaded bar anchor with anchorages.

All work on or adjacent to Wanda Street shall be completed by July 1, 1998 to facilitate work on the Carquinez Replacement Project.

10-1.02 WATER POLLUTION CONTROL.

Water pollution control work shall conform to the requirements in Section 7-1.01G, "Water Pollution," of the Standard Specifications, and these Special Provisions.

This project shall conform to the requirements of Permit No.CAS029998 issued by the San Francisco Bay Regional (Region 2) Water Quality Control Board. This permit and amendments thereof, hereafter referred to as the "Permit," regulates storm water discharges associated with construction activities.

Water pollution control work shall conform to the requirements of the "Caltrans Storm Water Quality Handbook, Construction Contractor's Guide and Specifications", dated May 10, 1996, and all addenda thereto issued up to and including the date of advertisement of the bid, hereafter referred to as the "Handbook". Copies of the Handbook may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916)445-3520.

Copies of the Handbook, and Permit are available for review at 111 Grand Avenue Oakland, California 94601. Please call the Toll Bridge Seismic Retrofit Program Duty Senior, telephone number (510) 286-5549 to reserve a copy of the documents at least 24 hours in advance.

The Contractor shall become fully informed of and comply with all applicable provisions of the Handbook, Permit, and federal, state, and local regulations that govern the Contractor's operations and storm water discharges from the project site and areas of disturbance outside the project limits during construction. The Contractor shall maintain a copy of the Permit at the project site and shall make the Permit available to operating personnel during construction activities.

Unless arrangements for disturbance of areas outside the project limits are made by the Department and made part of the contract, it is expressly agreed that the Department assumes no responsibility to the Contractor or property owner whatsoever with respect to any arrangements made between the Contractor and property owner to allow disturbance of areas outside the project limits, and the Contractor shall assume all risks and liabilities and bear all costs in connection with the disturbance of these areas. All areas outside of the project limits disturbed by the Contractor for the prosecution of the work shall be subject to the requirements of this Special Provision. In addition, other requirements may be applicable to areas outside of the project limits disturbed by the Contractor.

The Contractor shall be responsible for all costs and for any liability imposed by law a result of the Contractor’s failure to comply with the requirements set forth in this Special Provision, including but not limited to compliance with all applicable provisions of the Handbook, Permit, and federal, state, and local regulations. For the purposes of this paragraph, liabilities include but are not limited to fines, penalties, or damages whether assessed against the State or the Contractor,

including those levied under the federal Clean Water Act or state Porter Cologne Water Quality Act. The allocation of responsibilities set forth in this paragraph shall be in accordance with Section 7-1.12, "Responsibility for Damage," of the Standard Specifications.

Conformance with the requirements of this Special Provision shall not relieve the Contractor from the Contractor's responsibilities, as provided in Section 7-1.11, "Preservation of Property," and Section 7-1.12, "Responsibility for Damage," of the Standard Specifications.

The Contractor shall, at reasonable times, allow authorized agents of the State Regional Water Quality Control Board, State Water Resources Control Board, U. S. Environmental Protection Agency, and local storm water management agency, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the construction site and the Contractor's facilities pertinent to the work;
2. Have access to and copy any records that must be kept as specified in the Permit;
3. Inspect the construction site and related erosion and sediment control measures; and
4. Sample or monitor for the purpose of ensuring compliance with the Permit.

The Contractor shall notify the Engineer immediately upon request from Regulatory Agencies to enter, inspect, sample, monitor, or otherwise access the project site or the Contractor's records.

STORM WATER POLLUTION PREVENTION PLAN PREPARATION, APPROVAL, AND UPDATES.--As part of the water pollution control work, a Storm Water Pollution Prevention Plan, hereafter referred to as the "SWPPP", is required for this contract. The SWPPP shall conform to the requirements in Section 7-1.01G, "Water Pollution," of the Standard Specifications, the requirements in the Handbook, the requirements of the Permit, and these Special Provisions. Upon the Engineer's approval of the SWPPP, the SWPPP fulfills the Section 7-1.01G of the Standard Specifications requirement for development and submittal of a Water Pollution Control Program.

The objectives of the SWPPP shall be to: identify pollution sources that may adversely affect the quality of storm water discharges associated with the project; and to identify, construct, implement, and maintain water pollution control measures, hereafter referred to as control measures, to reduce to the extent feasible pollutants in storm water discharges from the construction site both during and after construction is completed under this contract.

The SWPPP shall incorporate control measures in all of the following categories:

1. Soil stabilization practices;
2. Sediment control practices;
3. Sediment tracking control practices;
4. Wind erosion control practices;
5. Non-storm water management practices; and
6. Waste management and disposal control practices.

Specific objectives and minimum requirements for each category of control measures are contained in the Handbook.

The Contractor shall consider all control measures and minimum requirements presented in the Handbook for each of the above categories. Where minimum requirements are specified in this Special Provision for any category, they supersede the minimum requirements in the Handbook for the same category. When minimum requirements are specified for any category, the Contractor shall incorporate into the SWPPP and implement on the project one or more of the specified minimum controls required to meet the pollution control objectives for the category. In addition, the Contractor shall consider all other control measures presented in the Handbook and shall incorporate into the SWPPP and implement on the project all control measures required to meet the objectives of the SWPPP. The Contractor shall document the selection process in accordance with the procedure specified in the Handbook.

The following special minimum requirements are established:

Category:	Minimum Requirements:
Nonstorm Water Liquids, Solids, and Waste Management	CD8(2) Paving Operations, CD9(2) Structure Construction and Painting, CD10(2) Material Deliver and Storage, CD11(2) Material Use, CD12(2) Spill Prevention and Control, CD13(2) Solid Waste Management, CD14(2) Hazardous Waste Management, CD15(2) Contaminated Soil Management, CD16(2) Concrete Waste Management, CD18(2) Vehicle and Equipment Cleaning, CD19(2) Vehicle and Equipment Fueling, CD20(2) Vehicle and Equipment Maintenance,
Erosion & Sediment Source Controls	CD24B(2) Temporary Seeding and Planting, CD23(2) Preservation of Existing Vegetation, CD25(2) Mulching, CD26B(2) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets CD31(2) Earth Dikes, drainage Swales, and Lined Ditches
Wind Erosion Controls	CD26B(2) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets
Sediment Treatment Controls	CD29A(2) Stabilized Construction Entrance, CD36(2) Silt Fences, CD37(2) Straw Bale Barrier, CD39(2) Brush or Rock Filter, CD40(2) Storm Drain Inlet Protection

The critical temporary control measures listed below are specified and paid for as separate items of work. These critical temporary control measures shall be incorporated into the SWPPP and constructed in accordance with the Special Provisions listed below. The Contractor shall consider other control measures in accordance with this Special Provision to supplement the critical temporary control measures specified below when necessary to meet the pollution control objectives of the SWPPP.

Critical Temporary Control Measure: Temporary Stockpile Cover.
Special Provision: Temporary Control Measures.
Critical Temporary Control Measure: Temporary Silt Fence.
Special Provision: Temporary Control Measures.
Critical Temporary Control Measure: Temporary Drainage Inlet Protection.
Special Provision: Temporary Control Measures.

The SWPPP shall include, but not be limited to the following items as described in the Handbook and Permit:

1. Source Identification;
2. Erosion and Sediment Controls;
3. Non-Storm Water Management;
4. Waste Management and Disposal;
5. Maintenance, Inspection, and Repair;
6. Training;
7. List of Contractors/Subcontractors;
8. Post-Construction Storm Water Management;
9. Preparer;
10. Copy of the local permit;
11. BMP Consideration Checklist;
12. SWPPP Checklist;
13. Schedule of Values; and
14. Water Pollution Control Drawings.

No work having potential to cause water pollution, as determined by the Engineer, shall be performed until the SWPPP has been approved by the Engineer. Within 20 days after the approval of the contract, the Contractor shall submit 3 copies of the SWPPP to the Engineer. The Contractor shall allow 15 days for the Engineer to review the SWPPP. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the SWPPP within 10 days of receipt of the Engineer's comments. Upon Engineer's approval of the SWPPP, 3 additional copies of the SWPPP incorporating the required changes shall be submitted to the Engineer. Minor changes or clarifications to the initial submittal may be made and attached as amendments to the SWPPP. In order to allow construction activities to proceed, the Engineer may conditionally approve the SWPPP while minor revisions or amendments are being completed.

The Contractor shall amend the SWPPP, graphically and in narrative form, whenever there is a change in construction activities or operations which may affect the discharge of significant quantities of pollutants to surface waters, ground waters, municipal storm drain systems, or when deemed necessary by Engineer. The SWPPP shall also be amended if it is in violation of any condition of the Permit, or has not achieved the general objective of reducing pollutants in storm water discharges. Amendments shall be dated and logged in the SWPPP and attached to the on site document.

The Contractor shall keep a copy of the SWPPP, together with updates, revisions and amendments, at the construction site. The SWPPP shall be made available upon request of a representative of the Regional Water Quality Control Board or local

agency. Requests by the public shall be directed to the Engineer.

By June 15 of each year, the Contractor shall submit an annual certification to the Engineer stating compliance with the requirements governing the Permit. If the project is in non-compliance at any time, the Contractor shall make a written report to the Engineer within 48 hours of identification of non-compliance.

SCHEDULE OF VALUES.--The Contractor shall include in the SWPPP for approval by the Engineer, a schedule of values detailing the cost breakdown of the lump sum item for water pollution control. The schedule of values shall reflect all items of work, quantities, and costs for control measures in the SWPPP, except for critical temporary controls and permanent, post-construction control measures which are listed in this Special Provision but specified as separate items of work. Adjustments in the items of work and quantities listed in the schedule of values shall be made when required to address amendments to the SWPPP.

No adjustment in compensation will be made in the contract lump sum price paid for implementation of water pollution control measures due to any differences between the quantities shown in the schedule of values included in the SWPPP and the quantities required to complete the work as required in these Special Provisions.

The sum of the amounts for the units of work listed in the schedule of values shall be equal to the contract lump sum price for water pollution control.

The schedule of values shall be approved in writing by the Engineer before any progress payment will be made for water pollution control. The approved schedule of values will be used to determine progress payments during the progress of the work, and as the basis for calculating any adjustment in compensation for the item for water pollution control due to changes in the construction work ordered by the Engineer.

SWPPP IMPLEMENTATION.--Upon approval of the SWPPP, the Contractor shall be responsible throughout the duration of the project for installing, constructing, implementing, removing, and disposing all control measures included in the SWPPP. Unless otherwise specified by the Engineer or the Special Provisions, the Contractor's responsibility for SWPPP implementation continues throughout any temporary suspension of work ordered in accordance with Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications. Requirements for installation, construction, implementation, removing, and disposing of all control measures are specified in the Handbook and the Special Provisions.

If the control measures being taken by the Contractor are inadequate to control water pollution effectively, the Engineer may require the Contractor to revise the operations and amend the SWPPP at no additional cost to the State.

Erosion and sediment control measures, including minimum requirements, shall be provided throughout the winter season defined as between September 15 and May 1.

Implementation of erosion and sediment control measures for all soil-disturbed areas of the project site shall be completed, except as provided for below, no later than 20 days prior to the beginning of the winter season or upon start of applicable construction activities for projects which begin either during or within 20 days of the winter season.

Throughout the winter season, the active, soil-disturbed area of the project site shall be no more than 2.5 acres in size. The Engineer may approve on a case-by-case basis expansions of the active, soil-disturbed area limit. The Contractor shall demonstrate the ability and preparedness to fully deploy erosion and sediment control measures to protect all soil-disturbed areas of the project site before the onset of precipitation. The ability and preparedness to deploy control measures requires that the Contractor: maintain a quantity of erosion and sediment materials on site equal to 125 percent of that sufficient to protect all unprotected, soil-disturbed areas on the project site; and maintain a detailed plan for the mobilization of sufficient labor and equipment to fully deploy control measures required to protect all unprotected, soil-disturbed areas on the project site prior to the onset of precipitation. The Contractor shall include a current inventory of control measure materials and the detailed mobilization plan as part of the SWPPP.

Throughout the winter season, active, soil-disturbed areas of the project site shall be considered to be nonactive, soil-disturbed areas whenever soil disturbing activities are expected to be discontinued for a period of 5 or more days. Areas that become nonactive either during the winter season or within 20 days thereof, shall be fully protected with erosion and sediment control measures within 10 days of the discontinuance of soil disturbing activities or prior to the onset of precipitation, whichever is first to occur. Until fully protected, nonactive, soil-disturbed areas shall be considered to be active when applying the active, soil-disturbed area limit discussed above.

Throughout the winter season, active and nonactive, soil-disturbed areas of the project site shall be fully protected at the end of each day with erosion and sediment control measures unless fair weather is predicted through the following work day. The weather forecast shall be monitored by the Contractor on a daily basis. The National Weather Service forecast shall be used. The Contractor may propose an alternative weather forecast for use if approved by

the Engineer. If precipitation is predicted prior to the end of the following work day, construction scheduling shall be modified, as required, and the Contractor shall deploy functioning control measures prior to the onset of the precipitation.

The Contractor shall continue to implement water pollution control measures during any temporary suspension of work due to winter weather.

If the work in any area has not progressed to a point where all or part of the facilities on the SWPPP for that area can be constructed, the Contractor shall construct such supplementary control facilities as are necessary to protect adjacent private and public property.

The Contractor shall implement, year-round and throughout the duration of the project, control measures included in the SWPPP for sediment tracking, wind erosion, non-storm water management, and waste management and disposal.

The Engineer may order suspension of construction operations which create pollution if the Contractor fails to conform to the requirements of this section, "Water Pollution Control," as determined by the Engineer.

INSPECTION AND MAINTENANCE.--To ensure the proper implementation and functioning of control measures, the Contractor shall regularly inspect and maintain the construction site for the control measures identified in the SWPPP. The Contractor shall identify corrective actions and time frames to address any damaged measures or reinitiate any measures that have been discontinued.

The construction site inspection checklist provided in the Handbook shall be used to ensure that the necessary measures are being properly implemented, and to ensure that the control measures are functioning adequately. The Contractor shall submit one copy of each site inspection record to the Engineer.

Inspections of the construction site shall be conducted by the Contractor to identify deficient measures, as follows:

1. Prior to a forecast storm;
2. After each storm event ;
3. At 24 hour intervals during extended precipitation events; and
4. Routinely, on a weekly basis.

If the Contractor or the Engineer identifies a deficiency in the deployment or functioning of an identified control measure, the deficiency shall be corrected by the Contractor immediately, or by a later date and time if requested by the Contractor and approved by the Engineer in writing, but not later than the date and time of the onset of subsequent precipitation events. The correction of deficiencies shall be at no additional cost to the State.

PAYMENT.--The contract lump sum price paid for preparation of the SWPPP shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in developing, obtaining approval of, revising, and amending the SWPPP as required by these Special Provisions.

Payments for preparation of the SWPPP shall be made as follows:

1. When the SWPPP has been approved by the Engineer, a 75 percent payment will be made; and
2. When the project has been completed, the remaining 25 percent payment will be made.

The contract lump sum price paid for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in installing, constructing, implementing, inspecting, maintaining, and disposing of control measures, excluding preparation and amending the SWPPP, as required by these Special Provisions.

The Engineer will retain an amount equal to 25 percent of the estimated value of all contract work performed during estimate periods in which the Contractor fails to conform to the requirements of this section, "Water Pollution Control," as determined by the Engineer.

Retentions for failure to conform to the requirements of this section shall be in addition to all other retentions provided for in the contract. The amounts retained for failure of the Contractor to conform to the requirements of this section will be released for payment on the next monthly estimate for partial payment following the date that an approved SWPPP has been implemented and maintained, and water pollution is adequately controlled as determined by the Engineer.

10-1.03 TEMPORARY CONTROL MEASURES.

Temporary Control Measures shall conform to the requirements in Section 7-1.01G, “Water Pollution”, Section 20 “Erosion Control and Highway Planting” of the Standard Specifications and these special provisions

Conformance with the requirements of this section shall in no way relieve the Contractor from the Contractor's responsibilities, as provided in Section 7-1.11, "Preservation of Property," and Section 7-1.12, "Responsibility for Damage," of the Standard Specifications.

TEMPORARY SILT FENCE.--Temporary silt fence shall be furnished and constructed, maintained and later removed as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

The Contractor shall use temporary silt fence as one of the various measures to prevent water pollution. The

Storm Water Pollution Prevention Plan (SWPPP) shall graphically show the use of temporary silt fence in relation to other water pollution control work specified elsewhere in these special provisions.

MATERIALS.--Materials shall conform to the provisions in Section 20-2, "Materials," of the Standard Specifications and these special provisions.

SEDIMENTATION CONTROL FABRIC.-- Sedimentation control fabric shall be a woven fabric made of polypropylene. The fabric shall be non biodegradable, resistant to sunlight deterioration, inert to most soil chemicals and shall be furnished with sealed edges on all sides to prevent unraveling. The fabric shall also conform to the following minimum requirements:

Grab tensile strength, ASTM D-4632	100-120 lbs.
Trapezoid tear strength, ASTM D-4533	48-50 lbs.
Mullen burst strength, ASTM D3786	250 psi
UV stability	80%
Fabric width	3 feet .

Materials shall not have been used.

EXECUTION.--Wood posts shall be an integral part of the silt fence and shall be packaged with the silt fence fabric. Wood posts shall be a minimum of 4 feet in length.

Concrete footings for wood posts will not be required.

Temporary silt fences shall be maintained to preserve at least a minimum of 70% of the sediment holding capacity. The Contractor shall remove built-up sediments when necessary and as directed by the Engineer. All removed sediments shall be disposed of and protected from further erosion.

Temporary silt fences that are damaged as a result of the Contractors operation shall be repaired or replaced by the Contractor at his expense. The Contractor shall repair any damaged temporary silt fences as directed by the Engineer.

When no longer required for the purpose as determined by the Engineer, temporary silt fence shall be removed. Removed facilities shall become the property of the Contractor and shall be removed from the site of the work.

Holes, depressions or any other ground disturbance caused by the removal of the silt fence shall be backfilled and repaired in accordance with the provisions in the second paragraph of Section 15-1.02, "Preservation of Property," of the Standard Specifications.

MEASUREMENT AND PAYMENT.--The quantity of silt fence to be paid for shall be determined by the linear foot of temporary silt fence installed as measured along the base of the ground at the base of the fence. If the Contractor removes temporary silt fence in order to facilitate any other work, the silt fence shall be replaced by the Contractor at no additional cost to the State.

The contract unit price paid per linear foot for temporary silt fence shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in temporary silt fence, complete in place, including removing and disposing of temporary silt fence, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

TEMPORARY STOCKPILE COVER.-- Temporary stockpile cover as shown on the plans shall be either fabric or plastic sheeting. If fabric is used, the material shall conform to the provisions in the Standard Specifications and these special provisions.

If fabric is used, the fabric shall be a minimum 4-6 ounce slit film woven fabric made of monofilaments of polypropylene. The fabric shall be non biodegradable, resistant to sunlight deterioration, inert to most soil chemicals and furnished with sealed edges on all sides to prevent unraveling. The fabric shall also conform to the following:

Grab tensile strength (minimum)	200-300 lb
Elongation at break, percent min.,	40

If plastic sheeting is used, the sheeting shall be new and a minimum of 12 mil thickness.

Fabric or plastic sheeting shall be placed over the stockpile with a 2.25 ft overlap. A weight such as sandbags or used tires shall be placed on the overlap area at a maximum spacing of 8 ft. Edges shall be embedded a minimum of 6 inches in native soil.

Temporary stockpile cover damaged as a result of the Contractors operations shall be replaced by the Contractor at his expense.

MEASUREMENT AND PAYMENT.-- The quantity of stockpile cover to be paid for shall be determined by the square yard of stockpile cover installed. If the Contractor removes the stockpile cover in order to facilitate any other work, the cover shall be replaced and secured by the contractor at no additional cost to the State.

The contract unit price paid per square yard for temporary stockpile cover shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in temporary stockpile cover, complete in place, including removing of stockpile cover materials, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

TEMPORARY DRAINAGE INLET PROTECTION.--Temporary drainage inlet protection shall be installed, maintained and later removed as shown on the details on the plans, as specified in these special provisions, and as directed by the Engineer.

The Contractor shall use temporary drainage inlet protection as one of the various measures to prevent water pollution. The storm water pollution prevention plan shall graphically show the use of temporary drainage inlet protection in relation to other water pollution control work specified elsewhere in these special provisions.

MATERIALS.--Materials shall conform to the provisions in Section 20-2, "Materials," of the Standard Specifications and these special provisions.

SEDIMENTATION CONTROL FABRIC.-- Sedimentation control fabric shall conform to the requirements in temporary silt fence elsewhere in these specifications.

When no longer required for the purpose, as determined by the Engineer, temporary drainage inlet protection facilities shall be removed. Removed facilities shall become the property of the Contractor and shall be removed from the site of the work.

Temporary drainage inlet protection damaged as a result of the Contractors operations shall be replaced by the Contractor at his expense.

MEASUREMENT AND PAYMENT.--The quantity of temporary drainage inlet protection to be paid for shall be determined by each unit installed. If the Contractor removes the temporary drainage inlet protection in order to facilitate any other work the temporary drainage inlet protection shall be replaced by the contractor at no additional cost to the State.

10-1.04 NON-STORM WATER DISCHARGES.

Non-storm water discharges shall conform to the requirements in Section 7-1.01G, "Water Pollution" of the Standard Specifications and these special provisions

Conformance with the requirements of this section shall in no way relieve the Contractor from the Contractor's responsibilities, as provided in Section 7-1.11, "Preservation of Property," and Section 7-1.12, "Responsibility for Damage," of the Standard Specifications.

FOOTING EXCAVATION AND PILE DEWATER.-- Suspended solids shall be removed during the dewatering operation for piles, as specified in these special provisions.

Suspended solids shall be removed to the extent that visible, floating products are not apparent within the discharge. Also, the discharge shall be of a visible purity such that turbidity and apparent color beyond present natural background levels are not apparent within the receiving water body. The point of effluent discharge shall not cause bottom sediments, aquatic vegetation, or surface soils to become dislodged or disturbed.

The Contractor shall graphically depict the dewatering process within the storm water pollution prevention plan (SWPPP) as specified elsewhere in these special provisions. The graphic shall show both a sectional and plan view that details the removal techniques for suspended solids. The graphic shall define the flow path and placement of pipes, hoses, pumps, and other equipment used to convey the discharge. In addition, the contractor shall provide a sketch that depicts the general position of the apparatus relative to the pile(s) undergoing dewatering and the point of effluent discharge.

The Contractor shall describe within the appropriate sections of the SWPPP, as specified elsewhere in these special provisions, the pile dewatering apparatus. The description shall include, but not be limited to, an estimate of the discharge volume, flow rate, and frequency; location of discharge; and inspection and monitoring procedures related to the discharge.

The Contractor shall conduct a daily inspection of the dewatering equipment when in use to ensure that all components are functional and routinely maintained to prevent leakage prior to removal of suspended solids. Any component of the apparatus that is found to be damaged or to affect the performance of the apparatus shall be either immediately repaired or replaced.

The Contractor shall visually monitor both the discharge and the receiving water body. The observations made during monitoring shall include the color, size of affected area, presence of suspended material, presence of water fowl or aquatic wildlife, wind direction and velocity, tidal condition, atmospheric condition, time, and date. In addition, the Contractor shall supplement the observations with photographs. The contractor shall conduct monitoring, at a minimum, one hour prior to discharge, during the first ten minutes of initiating discharge, every four hours during discharge, and upon cessastion of discharge. The observations shall be recorded daily in a tabular format known as the monitoring report provided within the conceptal storm water pollution prevention plan, as specified elsewhere in these special provisions. The monitoring report, including photographs, shall be provided weekly to the Engineer, or as directed by the Engineer.

Observations which indicate that the discharge is of a visible purity such that turbidity and apparent color are beyond the present natural background levels shall be immediately reported to the Engineer. The discharge activity shall immediately cease, so that corrective actions are undertaken to repair, modify, or replace the

equipment. The commencement of discharge activities shall be allowed upon approval by the Engineer.

MEASUREMENT AND PAYMENT.--Full compensation for conforming to the requirements of this Section shall be considered as included in the contract prices paid for the various items of work involved and no separate payment will be made therefor.

10-1.05 TEMPORARY METAL BEAM GUARD RAILING

Temporary metal beam guard railing shall be furnished and constructed, maintained, and later removed as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

Except as otherwise specified in this section, temporary metal beam guard railing work shall conform to the plan details and the specifications for permanent metal beam guard railing as provided in Section 83-1, "Railings," of the Standard Specifications.

Used materials may be used providing such used materials are good, sound, and are suitable for the purpose intended.

Galvanizing of steel items will not be required.

Treating wood with wood preservatives will not be required.

Steel posts, plates, hardware, threaded rods, and anchor bolts except high strength bolts, may be commercial quality material.

Temporary metal beam guard railing facilities that are damaged from any cause during the progress of the work shall be repaired or replaced by the Contractor at his expense.

When no longer required for the work as determined by the Engineer, temporary metal beam guard railing facilities (including footings and anchors) shall be removed. Removed facilities shall become the property of the Contractor and shall be removed from the site of the work, except as otherwise provided in this section.

Holes and pits caused by the removal of temporary metal beam guard railing facilities shall be backfilled in accordance with the provisions in the second paragraph of Section 15-1.02, "Preservation of Property," of the Standard Specifications.

When the temporary railing is removed, the anchor rods for the temporary cable anchor assemblies shall be cut flush with the concrete anchor blocks. Concrete anchor blocks may be left in place providing the anchors do not conflict with other required work.

Temporary metal beam guard railing, temporary cable anchor assemblies, Type M and Type B and the Type M temporary terminal sections will be measured and paid for in the same manner specified for corresponding items for permanent metal beam guard railing work as provided in Section 83-1.03, "Measurement," and Section 83-1.04, "Payment," of the Standard Specifications.

Full compensation for maintaining, removing, and disposing of temporary metal beam guard railing facilities shall be considered as included in the prices paid for the various contract items for temporary metal beam guard railing work and no additional compensation will be allowed therefor.

10-1.06 TEMPORARY HIGH VISIBILITY BOUNDARY FENCE

Temporary high visibility boundary fence shall be furnished and constructed, maintained, and later removed as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

Attention is directed to "Order of Work" and "Environmentally Sensitive Area" elsewhere in these special provisions regarding the installation of temporary high visibility boundary fence.

Used materials may be used providing such used materials are good, sound, and are suitable for the purpose intended.

Materials may be commercial quality providing the dimensions and sizes of said materials are equal to, or greater than, the dimensions and sizes shown on the plans or specified herein.

FENCE FABRIC:

Material:	Polypropylene
Color:	Orange
Opening Size:	2 in x 2in (max)
Ultraviolet Resistance:	Fully Stabilized
Minimum Fabric Width:	4 ft

Posts shall be either metal or wood at the Contractor's option and shall be suitable for the purpose intended. Post spacing shall be adequate to completely support the fence in an upright position.

Galvanizing and painting of steel items will not be required.

Treating wood with wood preservatives will not be required.

Concrete footings for metal or wood posts will not be required.

Temporary high visibility boundary fence that is damaged from any cause during the progress of the work shall be repaired or replaced by the Contractor at his expense.

When no longer required for the work as determined by the Engineer, temporary high visibility boundary fence shall be removed. Removed facilities shall become the property of the Contractor and shall be removed from the site of the work, except as otherwise provided in this section.

Holes caused by the removal of temporary high visibility boundary fence shall be backfilled in accordance with the provisions in the second paragraph of Section 15-1.02, "Preservation of Property," of the Standard Specifications.

Temporary high visibility boundary fence will be measured and paid for by the linear foot.

The contract price paid per linear foot for temporary high visibility boundary fence shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in temporary high visibility boundary fence, complete in place, including removal when no longer required, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.07 TEMPORARY FENCES

Temporary fences shall be furnished and constructed, maintained, and later removed as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

Except as otherwise specified in this section, temporary fences shall conform to the plan details and the specifications for permanent fences of similar character as provided in Section 80, "Fences," of the Standard Specifications.

Used materials may be used providing such used materials are good, sound, and are suitable for the purpose intended.

Posts shall be metal.

Galvanizing and painting of steel items will not be required.

Concrete footings for metal posts will not be required.

Temporary fences that are damaged from any cause during the progress of the work shall be repaired or replaced by the Contractor at his expense.

When no longer required for the work as determined by the Engineer, temporary fences shall be removed. Removed facilities shall become the property of the Contractor and shall be removed from the site of the work.

Holes caused by the removal of temporary fences shall be backfilled in accordance with the provisions in the second paragraph of Section 15-1.02, "Preservation of Property," of the Standard Specifications.

The temporary fence (Type CL-6) will be measured and paid for in the same manner specified for permanent fences of similar character as provided in Section 80, "Fences," of the Standard Specifications.

Full compensation for maintaining, removing, and disposing of temporary fences shall be considered as included in contract price paid per linear foot for temporary fence (Type CL-6) and no additional compensation will be allowed therefor.

10-1.08 TEMPORARY DECK BRIDGING

Temporary deck bridging to carry vehicular traffic over areas where any portion of bridge deck or expansion joint has been removed shall be designed, furnished, constructed, monitored, maintained and removed in accordance with the requirements of these special provisions.

Approval by the Engineer of the temporary deck bridging working drawings or inspection performed by the Engineer of the temporary deck bridging will in no way relieve the Contractor of full responsibility for the temporary deck bridging.

TEMPORARY DECK BRIDGING DESIGN AND DRAWINGS;.--The Contractor shall submit to the Engineer working drawings and design calculations for the temporary deck bridging. Such drawings and design calculations shall be signed by an engineer who is registered as a Civil Engineer in the State of California. Six sets of drawings and two copies of the design calculations shall be furnished.

Attention is directed to Section 5-1.02, “Plans and Working Drawings” of the Standard Specifications. Working drawings for any part of the temporary deck bridging shall include, but not be limited to: stress sheets, anchor bolt layouts, modifications to existing bridge members, shop details, erection and removal plans, and equipment lists.

The temporary deck bridging working drawings shall include descriptions and values of all loads, including construction equipment loads, descriptions of equipment to be used, complete details and calculations for supporting the loads imposed including vehicle live loadings.

The Contractor shall allow four weeks after complete drawings and all support data are submitted to the Engineer for review of any temporary deck bridging plans.

Should the Engineer fail to complete his review within the time allowed and if, in the opinion of the Engineer, the Contractor’s controlling operation is delayed or interfered with by reason of the delay in temporary deck bridging plan review, the delay will be considered a right of way delay as specified in Section 8-1.09, “Right of Way Delays” of the Standard Specifications.

The Contractor may revise approved temporary deck bridging drawings provided sufficient time is allowed for the Engineer’s approval before construction is started on the revised portions. Such additional time will not be more than that which was originally allowed. Construction of temporary deck bridging shall not begin until the drawings for the temporary deck bridging have been approved.

Temporary deck bridging supports shall be structurally adequate to transmit the loads to the surrounding foundation material or existing structure without overstressing the surrounding foundation material or any member of the existing structure. Temporary deck bridging shall be mechanically connected to the existing structure while subjected to vehicular loads. Temporary deck bridging loads shall not induce permanent forces into the existing structure or produce cracking in the existing structure.

Bracing shall be provided, as necessary, to withstand all imposed loads during placing and removal of any temporary deck bridging. The temporary deck bridging working drawings shall show provisions for such temporary bracing or methods to be used to conform to these requirements during each phase of placement and removal.

TEMPORARY DECK BRIDGING DESIGN CRITERIA;.--The temporary deck bridging shall support dead loads, vehicular live loads, construction equipment loads and additional loads imposed by the Contractor's operations. The construction equipment loads shall be the actual weight of the construction equipment.

As a minimum, the vehicular loading for the temporary deck bridging shall be designed to support the AASHTO HS20-44 and Alternate loadings with 100 percent impact.

The mechanical connections shall be capable of resisting the design forces specified herein.

The surface texture of the temporary deck bridging shall conform to the requirements of "Nonskid Surface" of these special provisions. .

MANUFACTURED ASSEMBLIES;.--Manufactured assemblies shall conform to the provisions in Section 51-1.06A(2), "Design Stresses,. Loadings, and Deflections", of the Standard Specifications and these special provisions.

TEMPORARY DECK BRIDGING CONSTRUCTION;.--Attention is directed to Paragraphs 1 through 7 of Section 51-1.06B, "Falsework Construction", of the Standard Specifications. All reference to falsework in these paragraphs shall also apply to temporary supports.

Should unanticipated displacements, cracking or other damage occur, the construction shall be discontinued until corrective measures satisfactory to the Engineer are performed. Damage to the structure as a result of the Contractor's operations shall be repaired by the Contractor according to the requirements of Section 7-1.11, ""preservation of Property", of the Standard Specifications.

The temporary deck surface shall not deviate more than 1/4 inch vertically or 1/2 inch horizontally from the existing adjacent deck surface.

REMOVING TEMPORARY DECK BRIDGING;.--When work is complete and temporary deck bridging is no longer required, all temporary deck bridging and attachments shall be removed from the existing structure and the concrete surfaces restored to original condition.

NONSKID SURFACE.--, The roadway riding surface of steel plates shall receive a nonskid surface consisting of epoxy mixed with grit. Epoxy shall conform to Section 95, "Epoxy," of the Standard Specifications.

Epoxy shall consist of epoxy conforming to either Section 95-2.01, "Binder (Adhesive), Epoxy Resin Base (State Specification 8040-01F-03)," or Section 95-2.09, "Epoxy Sealant for Inductive Loops (State Specification 8040-21C-06)," of the Standard Specifications.

Grit shall consist of commercial quality aluminum oxide, silicon carbide, or almandite garnet grit particles, screen size 12-30 or 14-36, applied uniformly at the rate of at least 0.3-pound per square foot of surface area.

The finish color of the nonskid surface shall be light gray.

Prior to applying epoxy and grit to galvanized surfaces, the surface to be coated shall be prepared in accordance with Section 59-3.02, "Surface Preparation," of the Standard Specifications.

The Contractor shall submit to the Engineer for approval a method of application stating the spread rate of epoxy and grit and the number of coats. The Contractor shall demonstrate the method of application to the Engineer, prior to placing any nonskid material, by preparing a one square foot sample placed on 1/4 inch hardboard. The nonskid surface shall have a total thickness of between 1/8 inch and 3/16 inch.

At the option of the Contractor, a commercial quality nonskid surface, comprised of a two component ultra violet resistant epoxy and grit of quality equal to the above requirements, may be submitted to the Engineer for approval.

MEASUREMENT AND PAYMENT.--Full compensation for furnishing and placing nonskid surface shall be considered as included in the contract lump sum price paid for temporary deck bridging and no separate payment will be made therefor.

The contract lump sum price paid for temporary deck bridging shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in designing, furnishing, installing, maintaining, removing and replacing as necessary to maintain traffic and finally removing the temporary deck bridging, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.09 COOPERATION

Attention is directed to Sections 7-1.14, "Cooperation," and 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications, "Obstructions" elsewhere in these special provisions and these special provisions.

The Contractor shall be responsible for coordinating with the persons for the various agencies involved on this project as they affect the progress of the work. Key contacts are as follows:

Union Pacific Rail Road (formerly Southern Pacific)
Contact: Manager of Public Projects, Engineering Dept.
Phone: (415) 541-1421
Pacific Gas and Electric Company
Contact: Land Agent
Phone: (510) 674-6433
Pacific Bell Telephone
Contact: Public Works Coordinator

Phone: (510) 823-6791

Crockett COGEN

Contact: Manager

Phone: (510) 787-4102

East Bay Municipal Utilities District

Contact: North Area Supervisor

Phone: (510) 287-0831

TCI

Contact: Construction Supervisor

Phone: (510) 432-0500

Crockett Valona Sewer District

Contact: Manager

Phone: (510) 787-2992

It is anticipated that work will be in progress by other contractors within or adjacent to the limits of this contract.

Contracts which may be in progress during the working period of this contract include but are not necessarily limited to the following:

Contract No. 044974 FasTRAK Project

Contract No. 150954 Traffic Operations System (TOS) Project.

Contract No. 044024 Benicia-Martinez Bridge Retrofit. This is a seismic retrofit project.

Contract No. 0440U4 Benicia-Martinez Bridge Retrofit. This is a seismic retrofit project.

Carquinez Replacement Projects.

Any work within the Contra Costa County right-of-way will require an encroachment permit. All road closures within Contra Costa County will require a road closure permit. The Contractor shall obtain the necessary permits by contacting Contra Costa County at (510) 646-1607.

Work by State maintenance forces will also be in progress within the contract limits during the working period for this contract.

Progress schedules for other work in progress, if available, may be inspected by the Contractor. Such progress schedules are tentative and cannot be guaranteed accurate.

The Contractor shall cooperate with C&H Sugar Company for any work within the C&H property in order for C&H to maintain their operations. Coordination with C&H shall be through the Engineer.

The Contractor shall participate in weekly work planning meetings with the Engineer for the purpose of coordinating his work with the work of other contractors, State, and other agency forces.

10-1.10 PROGRESS SCHEDULE (CRITICAL PATH)

Progress schedules will be required for this contract. Progress schedules shall utilize the Critical Path Method (CPM).

Definitions - The following definitions apply to this section "Progress Schedule (Critical Path)":

1) Activity: Any task, or portion of a project which takes time to complete.
2) Baseline Schedule: The initial CPM schedule representing the Contractor's original work plan, as accepted by the Engineer.
3) Critical Path Method: A mathematical calculation to determine the longest path of work and relative float represented by a graphic representation of the sequence of activities that shows the interrelationships and interdependencies of the elements composing a project.
4) Current Contract Completion Date: The extended date for completion of the contract shown on the weekly statement of working days furnished by the Engineer in accordance with Section 8-1.06, "Time of Completion," of the Standard Specifications.
5) Early Completion Time: The difference in time between the current contract completion date and the Contractor's scheduled early completion date as shown on the accepted baseline schedule, or schedule updates and revisions.
6) Float: The amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any activity or group of activities in the network.
7) Fragnet: A section or fragment of the network diagram comprised of a group of activities.
8) Hammock Activity: An activity added to the network to span an existing group of activities for summarizing purposes.
9) Milestone: A marker in a network which is typically used to mark a point in time or denote the beginning or end of a sequence of activities. A milestone has zero duration, but will otherwise function in the network as if it were an activity.
10) Revision: A change in the future portion of the schedule that modifies logic, adds or deletes activities, or alters activities, sequences, or durations.
11) Tabular Listing: A report showing schedule activities, their relationships, durations, scheduled and actual dates, and float.
12) Total Float: The amount of time that an activity may be delayed without affecting the total project duration of the critical path.
13) Update: The modification of the CPM progress schedule through a regular review to incorporate actual progress to date by activity, approved time adjustments, and projected completion dates.

Preconstruction Scheduling Conference - The Engineer will schedule and conduct a Preconstruction Scheduling Conference with the Contractor's Project

Manager and Construction Scheduler within seven days after the bidder has received the contract for execution. At this meeting, the requirements of this section of the special provisions will be reviewed with the Contractor. The Contractor shall be prepared to discuss its schedule methodology, proposed sequence of operations, and any deviations it proposes to make from the Stage Construction Plans. At this meeting, the Contractor shall submit its proposed work breakdown structure, the associated alpha-numeric coding structure to implement the work breakdown structure and the activity identification system for labeling all work activities. The Engineer shall review and comment on the work breakdown structure, the coding structure and activity identification system within seven days after submission by the Contractor. The Contractor shall make all modifications to the proposed work breakdown structure, the coding structure and activity identification system that are requested by the Engineer, and shall employ that coding, structure and system in its baseline schedule submission.

Interim Baseline Schedule - Within 10 days after approval of the contract, the Contractor shall submit to the Engineer an interim baseline project schedule which will serve as the progress schedule for the first 120 days of the project, or until the baseline schedule is accepted, whichever is sooner. The interim baseline schedule shall utilize the critical path method. The interim baseline schedule shall depict how the Contractor plans to perform the work for the first 120 days of the contract. Additionally, the interim baseline schedule shall show all submittals required early in the project, and shall provide for all permits, and other non-work activities necessary to begin the work. The interim baseline schedule submittal shall include a diskette which contains the data files used to generate the schedule.

The Engineer shall be allowed 15 calendar days to review and accept or reject the interim baseline schedule submitted. Rejected schedules shall be resubmitted to the Engineer within 5 calendar days of receipt by the Contractor of the Engineer's comments, at which time a new 15-calendar day review period by the Engineer will begin.

Baseline Schedule - Within 30 days after approval of the contract, the Contractor shall submit to the Engineer a baseline project schedule. The baseline schedule shall include the activities shown on the interim baseline schedule in the same order and logical relationship as shown in the interim baseline schedule. The baseline project schedule shall have a data date of the day prior to the first working day of the contract and shall not include any completed work to-date. The baseline progress schedule shall meet interim target dates, milestones, stage construction requirements, internal time constraints, show logical sequence of activities, and must not extend beyond the number of days originally provided for in the contract.

The baseline CPM schedule submitted by the Contractor shall have a sufficient number of activities to assure adequate planning of the project and to permit monitoring and evaluation of progress and the analysis of time impacts. The baseline schedule shall depict how the Contractor plans to complete the whole work involved, and shall show all activities that define the critical path.

The baseline progress schedule shall be supplemented with resource allocations for every activity, to a level of detail that facilitates report generation based on labor craft and equipment class for the Contractor and subcontractors. The Contractor shall use average composite crews to display the labor loading of on-site construction activities. The Contractor shall optimize and level labor to reflect a reasonable plan for accomplishing the work of the contract and to assure that resources are not duplicated in concurrent activities. The Contractor shall require each subcontractor to submit in writing a statement certifying that the subcontractor has concurred with the Contractor's CPM, including major updates, and that the subcontractor's related schedule has been incorporated accurately, including the duration of activities and labor and equipment loading. Along with the baseline progress schedule, the Contractor shall also submit to the Engineer time-scaled resource histograms of the labor crafts and equipment classes to be utilized on the contract.

The Engineer shall be allowed 15 calendar days to review and accept or reject the baseline project schedule submitted. Rejected schedules shall be resubmitted to the Engineer within 5 calendar days, at which time a new 15-calendar day review period by the Engineer will begin.

Project Schedule Reports - Schedules submitted to the Engineer including baseline and interim baseline schedules shall include time scaled network diagrams. Network diagrams shall be based on early start and early finish dates of activities shown. The network diagrams submitted to the Engineer shall also be accompanied by the computer-generated mathematical analysis tabular reports for each activity included in the project schedule. Three different report sorts shall be provided: Early Start, Total Float, and Activity Number, which shall show all predecessors and successors for each activity. The mathematical analysis tabular reports (8 1/2" x 11" size) shall be submitted to the Engineer and shall include, at a minimum, the following:

1) Data date
2) Predecessor and successor activity numbers and descriptions;
3) Activity number and description;
4) Activity codes;
5) Schedule, and actual and remaining duration for each activity;
6) Earliest start date (by calendar date);
7) Earliest finish date (by calendar date);
8) Actual start date (by calendar date);
9) Actual finish date (by calendar date);

10) Latest start date (by calendar date);
11) Latest finish date (by calendar date);
12) Identify actual non-working days
13) Identify activity calendar type
14) Float, in work days;
15) Percentage of activity complete and remaining duration for incomplete activities; and
16) Imposed constraints.

Networks shall be drafted time scaled to show a continuous flow of information from left to right. The primary paths of criticality shall be clearly and graphically identified on the networks. The network diagram shall be prepared on E-size sheets (36" x 48"), shall have a title block in the lower right-hand corner, and a timeline on each page. Exceptions to the size of the network sheets and the use of computer graphics to generate the networks shall be subject to the approval of the Engineer.

Schedule network diagrams and computer tabulations shall be submitted to the Engineer for acceptance in the following quantities:

a) 2 sets of the Network Diagrams;
b) 2 copies of the computer tabulation reports (8 1/2" x 11" size); and
c) 3 computer diskettes.

Should the baseline schedule or schedule update, submitted for acceptance, show variances from the requirements of the contract, the Contractor shall make specific mention of the variations in the letter of transmittal, in order that, if accepted, proper adjustments to the project schedule can be made. The Contractor will not be relieved of the responsibility for executing the work in strict accordance with the requirements of the contract documents. In the event of a conflict between the requirements of the contract documents and the information provided or shown on an accepted schedule, the requirements of the contract documents shall take precedence.

Each schedule submitted to the Engineer shall comply with all limits imposed by the contract, with all specified intermediate milestone and completion dates, and with all constraints, restraints or sequences included in the contract. The degree of detail shall include factors including, but not limited to:

1) Physical breakdown of the project;
2) Contract milestones and completion dates, substantial completion dates, constraints, restraints, sequences of work shown in the contract, the planned substantial completion date, and the final completion date;
3) Type of work to be performed, the sequences, and the major subcontractors involved;
4) All purchase, submittals, submittal reviews, manufacture, tests, deliver, and installation activities for all major materials and equipment.
5) Preparation, submittal and approval of shop and working drawings and material samples, showing time, as specified elsewhere, for the Engineer's review. The same time frame shall be allowed for at least one resubmittal on all major submittals so identified in the contract documents;
6) Identification of interfaces and dependencies with preceding, concurrent and follow-on contractors, railroads, and utilities as shown on the plans or specified in the specifications;
7) Identification of each and every utility relocation and interface as a separate activity, including activity description and responsibility coding that identifies the type of utility and the name of the utility company involved.
8) Actual tests, submission of test reports, and approval of test results;
9) All start-up, testing, training, and assistance required under the Contract;
10) Punchlist and final clean-up;
11) Identification of any manpower, material, or equipment restrictions, as well as any activity requiring unusual shift work, such as double shifts, 6-day weeks, specified overtime, or work at times other than regular days or hours; and
12) Identification of each and every ramp closing and opening event as a separate one-day activity, including designation by activity coding and description that it is a north-bound, south-bound, east-bound, west-bound, and entry or exit ramp activity.

Each construction activity shall have a duration of not more than 20 working days, and not less than one working day unless permitted otherwise by the Engineer. All activities in the schedule, with the exception of the first and last activities, shall have a minimum of one predecessor and a minimum of one successor. The baseline schedule shall not attribute negative float to any activity. Float shall not be considered as time for the exclusive use of or benefit of either the State or the Contractor but shall be considered as a jointly owned, expiring resource available to the project and shall not be used to the financial detriment of either party. Any accepted schedule, revision or update having an early completion date shall show the time between the early completion date and the current Contract Completion Date as "project float".

The Contractor shall be responsible for assuring that all work sequences are logical and the network shows a coordinated plan for complete performance of the work. Failure of the Contractor to include any element of work required for the performance of the contract in the network shall not relieve the Contractor from completing

all work within the time limit specified for completion of the contract. If the Contractor fails to define any element of work, activity or logic, and the omission or error is discovered by either the Contractor or the Engineer, it shall be corrected by the Contractor at the next monthly update or revision of the schedule.

Monthly Update Schedules - The Contractor shall submit a Monthly Update Schedule to the Engineer once in each month. The proposed update schedule prepared by the Contractor shall include all information available as of the 20th calendar day of the month, or other date as established by the Engineer. A detailed list of all proposed schedule changes such as logic, duration, lead/lag, additions and deletions shall be submitted with the update.

The monthly update schedule submitted to the Engineer shall be accompanied by a Schedule Narrative Report. The Schedule Narrative Report shall describe the physical progress during the report period, plans for continuing the work during the forthcoming report period, actions planned to correct any negative float predictions, and an explanation of potential delays or problems and their estimated impact on performance, milestone completion dates and the overall project completion date. In addition, alternatives for possible schedule recovery to mitigate any potential delay or cost increases shall be included for consideration by the Engineer. The report shall follow the outline set forth below:

Contractor's Schedule Narrative Report Outline:

1) Contractor's Transmittal Letter
2) Work completed during the period
3) Description of the current critical path
4) Description of problem areas
5) Current and anticipated delays
    a) Cause of the delay
    b) Corrective action and schedule adjustments to correct the delay
    c) Impact of the delay on other activities, milestones, and completion dates
6) Changes in construction sequences
7) Pending items and status thereof
    a) Permits
    b) Change Orders
    c) Time Extensions
    d) Non-Compliance Notices
8) Contract completion date(s) status
    a) Ahead of schedule and number of days
    b) Behind schedule and number of days
9) Include updated Network Diagram and Reports

The Contractor shall provide to the Engineer a 31/2" electronic disk of the schedule, together with printed copies of the network diagrams and tabular reports described under "Project Schedule Reports", and the Schedule Narrative Report.

The monthly update of the schedule shall be for the period from the last update to the current cut-off date, and for the remainder of the project. The current period's activities shall be reported as they actually took place and designated as actually complete, if actually completed, in the schedule updates.

Portions of the network diagram on which all activities are complete need not be reprinted and submitted in subsequent updates. However, the electronic disk file of the submitted schedule and the related reports shall constitute a clear record of progress of the work from award of contract to final completion.

The Contractor will be permitted to show early or late completion on schedule updates and revisions. The Engineer may use the updates and revisions, and other information available, in evaluating the effect of changes, delays, or time savings on the critical path and the accepted schedule current at the time to determine if there is an applicable adjustment of time, if any, to any target date or completion date due to the changes, delays, or time savings.

On a date determined by the Engineer, the Contractor shall meet with the Engineer to review the monthly schedule update. At the monthly progress meeting, the Contractor and the Engineer will review the updated schedule and will discuss the content of the Narrative Report. The Engineer shall be allowed 15 days after the meeting to review and accept or reject the update schedule submitted. Rejected schedules shall be resubmitted to the Engineer within 15 calendar days, at which time a new 15-calendar day review period by the Engineer will begin.

Schedule Revisions - If the Contractor desires to make a change to the accepted schedule, the Contractor shall request permission from the Engineer in writing, stating the reasons for the change, and proposed revisions to activities, logic and duration. The Contractor shall submit for acceptance the affected portions of the project schedule and an analysis to show the effect on the entire project. The Engineer will provide a response within 10 days. No revision to the accepted baseline schedule or the schedule updates shall be made without the prior written approval of the Engineer.

The Engineer will request the Contractor to submit a proposed revised schedule within 15 days when:

a) there is a significant change in the Contractor's operations that will affect the critical path;
b) the current updated schedule indicates that the contract progress is 30 calendar days or more behind the planned schedule, as determined by the Engineer; or
c) the Engineer determines that an approved or anticipated change will impact the critical path, milestone or completion dates, contract progress, or work by other contractors.

The Engineer shall be allowed 15 days to review and accept or reject a schedule revision. Rejected schedule revisions shall be revised and resubmitted to the Engineer within 15 calendar days, at which time a new 15-calendar day review period by the Engineer will begin. Only upon approval of a change by the Engineer shall it be reflected in the next schedule update submitted by the Contractor.

Schedule Time Extension Requests - When the Contractor requests a time extension due to contract change orders or delays, the Contractor shall submit to the Engineer a written Time Impact Analysis illustrating the influence of each change or delay on the current contract completion date or milestone completion date, utilizing the current accepted schedule. Each Time Impact Analysis shall include a fragnet demonstrating how the Contractor proposes to incorporate the Change Order or delay into the current schedule. The fragnet shall include the sequence of new and existing activity revisions that are proposed to be added to the accepted baseline project schedule or current schedule in effect at the time the change or delay is encountered, to demonstrate the influence of the delay and the proposed method for incorporating the delay and its impact into the schedule.

Each Time Impact Analysis shall demonstrate the estimated time impact based on the events of delay, the anticipated or actual date of the contract change order work performance, the status of construction at that point in time, and the event time computation of all activities affected by the change or delay. The event times used in the analysis shall be those included in the latest update of the current schedule in effect at the time the change or delay was encountered.

Time extensions will be granted only to the extent that equitable time adjustments for the activity or activities affected exceed the total or remaining float along the critical path of activities at the time of actual delay, or at the time the contract change order work is performed. Float time is not for the exclusive use or benefit of the Engineer or the Contractor, but is an expiring resource available to all parties as needed to meet contract milestones and the contract completion date. Time extensions will not be granted nor will delay damages be paid unless:

a) the delay is beyond the control and without the fault or negligence of the Contractor and its subcontractors or suppliers, at any tier; and,
b) the delay extends the actual performance of the work beyond the applicable current contract completion date and the most recent date predicted for completion of the project on the accepted schedule update current as of the time of the delay or as of the time of issuance of the contract change order.

Time Impact Analyses shall be submitted in triplicate within 15 days after the delay occurs or after issuance of the contract change order.

Approval or rejection of each Time Impact Analysis by the Engineer will be made within 15 days after receipt of the Time Impact Analysis, unless the review is delayed by subsequent meetings and negotiations. A copy of the Time Impact Analysis approved by the Engineer shall be returned to the Contractor and the accepted schedule revisions illustrating the influence of the contract change orders or delays shall be incorporated into the project schedule during the first update after approval.

Final Schedule Update - Within 15 days after the acceptance of the contract by the Director, the Contractor shall submit a final update of the schedule with actual start and actual finish dates for all activities. This schedule submission shall be accompanied by a certification, signed by an officer of the company and the Contractor's Project Manager stating "To the best of my knowledge, the enclosed final update of the project schedule reflects the actual start and completion dates of the activities contained herein."

Equipment and Software - The Contractor shall provide for the State's exclusive possession and use a complete computer system specifically capable of creating, storing, updating and producing CPM schedules. Before delivery and setup of the computer system, the Contractor shall submit to the Engineer for approval a detailed list of all computer hardware and software the Contractor proposes to furnish. The minimum computer system to be furnished shall include the following:

1) Complete computer system, including keyboard, mouse, 17 inch color SVGA monitor (1,024x768 pixels), Intel Pentium 200 MHZ micro processor chip, or equivalent, or better.

2) Computer operating system software, compatible with the selected processing unit, for Windows 95 or later, or equivalent.

3) Minimum sixty-four (64) megabytes of random access memory (RAM).

4) A two-gigabyte minimum hard disk drive, a 1.44 megabyte 3 l/2 inch floppy disk drive, 16x speed minimum CD-ROM drive, and ethernet card.

5) A color-ink-jet plotter with a minimum 8 megs RAM, capable of 300 dots per inch color, 600 dots per inch monochrome, or equivalent plotter capable of printing fully legible, timescaled charts, and network diagrams, in four colors, with a minimum size of 36 inches by 48 inches (E size) and is compatible with the selected system.
6) CPM software shall be Primavera Project Planner, version 2.0 for Windows 95, or later.

The computer hardware and software furnished shall be compatible with that used by the Contractor for the production of the CPM progress schedule required by the Contract, and shall include original instruction manuals and other documentation normally provided with the software.

The Contractor shall furnish, install, set up, maintain and repair the computer hardware and software ready for use at a location determined by the Engineer. The hardware and software shall be installed and ready for use by the first submission of the baseline schedule. The Contractor shall provide 24 hours of formal training for the Engineer in the use of the hardware and software to include schedule analysis, reporting, resource and cost allocations.

All computer hardware and software furnished shall remain the property of the Contractor and shall be removed by the Contractor upon acceptance of the contract when no claims involving contract progress are pending. When claims involving contract progress are pending, computer hardware or software shall not be removed until the final estimate has been submitted to the Contractor.

Payment - Progress schedule (critical path) will be paid for at a lump sum price. The contract lump sum price paid for progress schedule (critical path) shall include full compensation for furnishing all labor, materials (including computer hardware and software), tools, equipment, and incidentals; and for doing all the work involved in preparing, furnishing, updating and revising CPM progress schedules; maintaining and repairing the computer hardware; and training the Engineer in the use of the computer hardware and software; as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Payments for progress schedule (critical path) will be made as follows:

Interim baseline schedule accepted, then 10 percent payment for progress schedule (critical path) will be made.

Baseline schedule accepted, then 10 percent payment for progress schedule (critical path) will be made.

Monthly update schedules accepted, then 75 percent payment for progress schedule (critical path) will be made equally for each update.

Final schedule update accepted, then 5 percent payment for progress schedule (critical path) will be made.

The Department will retain an amount equal to 25 percent of the estimated value of the work performed during the first estimate period in which the Contractor fails to submit an interim baseline, baseline, revised or updated CPM schedule conforming to the requirements of this section, as determined by the Engineer. Thereafter, on subsequent successive estimate periods the percentage the Department will retain will be increased at the rate of 25 percent per estimate period in which acceptable CPM progress schedules have not been submitted to the Engineer. Retentions for failure to submit acceptable CPM progress schedules shall be additional to all other retentions provided for in the contract. The retention for failure to submit acceptable CPM progress schedules will be released for payment on the next monthly estimate for partial payment following the date that acceptable CPM progress schedules are submitted to the Engineer.

The adjustment provisions in Section 4-1.03, "Changes," of the Standard Specifications, shall not apply to the item of progress schedule (critical path). Adjustments in compensation for the project schedule will not be made for any increased or decreased work ordered by the Engineer in furnishing project schedules.

10-1.11 ELECTRONIC MOBILE DAILY DIARY COMPUTER SYSTEM

The Contractor shall provide for the State's exclusive possession and use a complete electronic mobile daily diary computer system, to allow State personnel to record observation (diary) data in the field using Personal Digital Assistants (PDAs), and in the office using desktop workstation(s). Recorded data will be uploaded to a database maintained on an Oracle server. Diary information in the database shall be capable of being edited and printed in the form of an Engineer's Daily Report from desktop workstations connected to the database via a local area network. The system will also provide other reports required by the Engineer, as well as user friendly and rapid retrieval of daily reports and other information from the database for research purposes.

The Engineer may use the furnished computer hardware, software, and instruction manual for any purposes related to the subject project. Before delivery and set up of the computer system the Contractor shall submit to the Engineer for approval a detailed list of all computer hardware and software the Contractor proposes to furnish. All computer hardware and software furnished shall remain the property of the Contractor and shall be removed by the Contractor upon acceptance of the contract when no claims are pending and after the final estimate has been submitted to the Contractor.

The electronic mobile daily diary computer system furnished shall meet the requirements described below for function, data, hardware, and support.

FUNCTIONAL REQUIREMENTS.--The Contractor shall provide not later than 5 days after the beginning of the contract completion time a computer system that complies with the following minimum functional specifications:

Data Collection Subsystem

1. Accept input of observation data.

General data

Allow input of data that applies to all observation data sets:

- Inspector ID: agency-specific code; allow up to 10 alphanumeric characters.
- Inspector password: general text field; allow up to 10 characters.
- Inspector name: general text field; allow up to 30 characters.
- Inspector title: general text field; allow up to 30 characters.

Daily contract observation data

Collect one or more contract observation data sets per contract per inspector per day:

- Observation date: month, day & year.
- Contract ID: agency-specific code; allow up to 15 alphanumeric characters.
- Uniqueness guarantor: time and time of creation of the data set.
- Weather condition, am and pm: agency-specific code of up to 10 alphanumeric characters.
- Temperature, high and low: signed numeric value of up to 3 digits (degrees Fahrenheit or Celsius).
- Humidity, high and low: percentage value (0 to 100%).
- Start and stop time for inspector shift (24-hour clock; values at the half hour).
- Start and stop time for jobsite shift (24-hour clock; values at the half hour).
- Level of inspection: values are “continuous”, “intermittent” and “no inspection”.
- Inspector signature: digital image of signature.

Laborer observation data

Collect multiple labor observations per observation data set:

- Contract item or Contract Change Order (CCO): sequential number; allow up to 6 digits.
- Contractor ID: agency-specific code; allow up to 10 alphanumeric characters.
- Critical Path Method next work (CPM) activity code: agency-specific code; allow up to 10 alphanumeric characters.
- Structure/Line: agency-specific code; allow up to 10 alphanumeric characters.

Location/Station: general text field; allow up to 60 characters.

- Laborer name: last, first, & middle initial.
- Labor classification: agency-specific code; allow up to 10 alphanumeric characters.
- Trainee status: Boolean value.
- Hours: numeric value (0 to 24; up to 2 places behind the decimal point).
- Hours type flag: flag value to indicate regular vs. overtime hours.
- Force account flag: Boolean value (CCO observations only).

Equipment observation data

Collect multiple equipment observations per observation data set:

- Contract item or CCO: sequential number; allow up to 6 digits.
- Contractor ID: agency-specific code; allow up to 10 alphanumeric characters.
- CPM activity code: agency-specific code; allow up to 10 alphanumeric characters.
- Stucture/Line: agency-specific code; allow up to 10 alphanumeric characters.
- Location/Station: general text field; allow up to 60 characters.
- Equipment ID: contractor-specific code; allow up to 10 alphanumeric characters.
- Equipment description (“new” equipment only): general text field; allow up to 60 characters.
- Rental status: Boolean value.
- Hours: numeric value (0 to 24; up to 2 places behind the decimal point).
- Hours type flag: flag value to indicate regular vs. overtime vs. idle hours.
- Force account flag: Boolean value (CCO observations only).

Pay Items observation data

Collect multiple pay items observations per observation data set:

- Contract item or CCO: sequential number; allow up to 6 digits.
- Contractor ID: agency-specific code; allow up to 10 alphanumeric characters.
- CPM activity code: agency-specific code; allow up to 10 alphanumeric characters.
- Stucture/Line: agency-specific code; allow up to 10 alphanumeric characters.
- Location/Station: general text field; allow up to 60 characters.
- Load ticket ID: Contractor-specific value; allow up to 15 alphanumeric characters.
- Quantity: numeric value; floating point (11,2) specification.
- Lot number: Contractor-specific value; allow up to 15 alphanumeric characters.

- Lab release number: contractor-specific value; allow up to 15 alphanumeric characters.
- Force account flag: Boolean value (CCO observations only).
- Units type (force account observations only): agency-specific code; allow up to 10 alphanumeric characters.
- Material type (force account observations only): general text field; allow up to 60 characters.

Remarks data

Collect multiple remarks per observation data set:

- Contract item or CCO (optional): sequential number; allow up to 6 digits.
- Contractor ID (optional): agency-specific code; allow up to 10 alphanumeric characters.
- CPM activity code: agency-specific code; allow up to 10 alphanumeric characters.
- Stucture/Line: agency-specific code; allow up to 10 alphanumeric characters.
- Location/Station: general text field; allow up to 60 alphanumeric characters.
- Remark type: agency-specific code; allow up to 10 alphanumeric characters.
- Remark text: general text field; allow up to 2,000 characters.
- Force account flag: Boolean value (CCO observations only).

2. Provide meaningful display of coded information.

- Display contract descriptions in addition to contract numbers.
- Display item/CCO descriptions in addition to item/CCO numbers.
- Display CPM activity descriptions in addition to CPM activity codes.
- Display Contractor names in addition to Contractor IDs.
- Display equipment descriptions in addition to equipment IDs.
- Display labor classification descriptions in addition to labor classification codes.
- Display material types and units of measure based on contract item number.
- Display weather condition descriptions in addition to weather condition codes.

3. Facilitate entry of inspection data.

In general, methods of data entry shall require the minimum number of actions or keystrokes from the user as is practical

- Provide pick lists from the central database for entry of the following fields,:
  - ◊ Contract numbers.
  - ◊ Contract item numbers.
  - ◊ Contractor IDs.
  - ◊ Laborers.
  - ◊ Labor classifications.
  - ◊ Equipment.
  - ◊ Remark types.
  - ◊ Weather conditions (am and pm).

Also provide alphabetical tabs for navigating the list of laborer.

- Provide option of handwriting or typewriter keypad entry for the following fields:
  - ◊ Inspector ID, password, name, and title.
  - ◊ CPM activity code.
  - ◊ Load ticket number.
  - ◊ Lot number.
  - ◊ Lab release number.
  - ◊ Materials location.
  - ◊ Remark text.
  - ◊ Laborer name for “new” people.
  - ◊ Equipment ID and description for “new” equipment.
- Provide option of handwriting or numeric keypad entry for the following fields:
  - ◊ Contract item number.
  - ◊ Materials quantity.
  - ◊ Temperatures (high and low).
  - ◊ Humidity (high and low).
- Provide “clock” controls for entry of the following fields:
  - ◊ Inspector shift hours.
  - ◊ Jobsite shift hours.
  - ◊ Hours (labor & equipment observations).
- Provide calendar keypad entry for the following fields:
  - ◊ Observation date.
- Provide checkboxes for entry of the following Boolean fields:
  - ◊ Trainee status.
  - ◊ Rental status.
  - ◊ Force account status.
- Provide radio buttons for entry of the following fields:
  - ◊ Hours type flag (regular, overtime, idle).
- Provide popup menu for entry of the following fields:
  - ◊ Level of inspection.

- Copy into labor & equipment observations relevant ratebook codes and values from the central database.
- Provide option to use handwriting or typewriter keypad to enter equipment ID for equipment observations and look up the corresponding piece of equipment, as an alternative to choosing the piece of equipment from a list.
- Provide option to change the labor classification for a labor observation even if the laborer name and classification have been selected from a list (to allow observations of laborers working out of their normal classes).

4. Store observation data sets.
   - Store all entered data on the mobile platform for up to 100 observations (any combination of types) per contract observation data set.
   - Store data for up to 30 observation data sets on the mobile platform.
   - Store or backup data on non-volatile memory to guard against data loss.

5. Support review and modification of observation data sets.
   - Allow user to select observation data sets from a list by identifying:
     ◊ Engineer ID.
     ◊ Observation date.
     ◊ Contract number.
   - Once a data set is selected, display all observation entries in an overview list. Allow list to be sorted by observation type, contract item, or Contractor. Also allow list to be restricted by observation type (labor, equipment, materials, or remarks) so that additional data can be displayed for the observations (e.g., labor name, hours & hours type for labor entries).
   - Provide option to duplicate observation entries from the list, optionally setting item number & hours fields to new values.
   - Allow list entries to be selected and edited.
   - Allow user to update weather condition and shift hour data.
   - Allow user to duplicate entire observation data sets to a new date selected by the user.
   - Allow user to delete observation data sets (after confirmation).

6. Communicate with database server to upload diaries and download control tables.
   - Allow user to mark diaries as “done” and collect a signature image at that time. After the diary has been signed, prohibit any other modifications to the diary. If diary is marked “undone” then allow modifications but throw away signature, so that a new signature is always required at whatever point the diary is marked “done” (i.e., ready for transmission).
   - Connect to communications server via direct serial connection, providing database user ID and password.
   - Send observation data.
     ◊ Select for transmission all observation data sets marked “done” that have not yet been transmitted.
     ◊ Output a serial stream containing the observation data sets to be transmitted.
     ◊ Display status during transmission and provide confirmation that data was sent to the server.
     ◊ Set a flag in transmitted data sets to indicate that they have been transmitted.
     ◊ Be capable of handling unexpected interruptions in the communication link.
   - Receive control table data.
     ◊ Automatically request all necessary control table downloads, providing both user ID and date of last download.
     ◊ Accept a serial stream containing control table updates.
     ◊ Display status during transmission and provide confirmation that data was received from the server.
     ◊ Set the date of last update for received control tables.
     ◊ Be capable of handling unexpected interruptions in the communication link.

7. Provide additional productivity support.
   - Display a list of names with addresses, phone numbers, radio call numbers and vehicle IDs. List entries must be transparently downloaded from a central database along with other control table data.
   - Provide a programmable scientific calculator option.

8. Provide adequate hardware functionality for hand-held computer.

- Allow data (other than signature image) to be entered with choice of either pen or keyboard.
- Weigh less than 2 pounds.
- Battery to have a life of at least 4 continuous hours between chargings.
- Provide "instant on" capability.
- Operate within a temperature range of 32 to 104 degrees Fahrenheit (similar to most electronic calculators).
- Backlit screen

Database Communication Subsystem

1. Connect to mobile platform and database server:
   - Connect to mobile platform via direct serial connection.
   - Accept database user ID and password from mobile platform.
   - Use the user ID and password to connect to Oracle database for read/write access, either locally or across a local area network.

2. Upload observation data.
   - Accept upload requests and data from the mobile device.
   - Drive data recognition and database write functions from an editable configuration file.
   - Write observation data to an Oracle database.
   - Be capable of handling unexpected interruptions in the communication link.

3. Download control data.
   - Accept download requests from the mobile device.
   - Drive data selection and database read functions from an editable configuration file and information (user ID and date of last download) supplied by the mobile device, to limit downloads to only the required data.
   - Read information from an Oracle database and output it to the mobile device.
   - Be capable of handling unexpected interruptions in the communication link.

4. Output audit and debugging data.
   - Provide an option to create archive files for data uploads.
   - Provide an option to create trace file output for data uploads.

5. Provide status/feedback on server operations.
   - Display status and information regarding in-progress data transmissions.
   - Provide optional trace window to display low-level actions of the server application in readable form.

6. Allow administrator to control the server application.
   - Allow administrator to start/stop communication activity.
   - Allow administrator to select connection port and configuration file.
   - Allow administrator to select archive and trace options.

Data Access Subsystem

1. Connect to database server and validate user name and password for authority to access data.
2. View observation data:
   - Retrieve observation data sets based on date, inspector, and/or contract item number, CCO number, or CPM activity code.
   - Display observation data sets on-line in a screen version of Daily Diaries.
   - Print observation data sets in a paper version of Daily Diaries. Diaries shall include the following information:
     - ◊ First page header: Caltrans logo, contract number & description, date, workday, jobsite and inspector shift hours, weather am/pm, temperature hi/lo, humidity hi/lo, inspector name and signature, page number.
     - ◊ Subsequent page header: contract number & description, date, workday, inspector name, page number.
     - ◊ Report body: summary of items of work performed, list of laborers, list of equipment, list of pay items, list of general remarks; each section sorted by Structure/Line.
     - ◊ Report footer: "end of report" indicator.
   - Print a special "CCO diary" to show only observations for a specified CCO.
   - Print a special "activity diary" to show only observations for a specified CPM activity.
   - Compute and display/print the California Department of Transportation (Caltrans) construction workday for each diary.

3. Edit observation data:

- Retrieve observation data sets based on inspector and approval status.
- Display observation data sets on-line in a screen version of Daily Diaries.
- Allow observation data sets to be edited on-line.
- Allow observation data sets to be created on-line.
- Allow remark text to be imported from text files.
- Print observation data sets in a paper version of Daily Diaries.
- Print "CCO diary" to show only observations for a specified CCO.
- Print "activity diary" to show only observations for a specified CPM activity.
- Compute and display/print the Caltrans construction workday for each diary.

4. Approve observation data:
   - Retrieve observation data sets based on inspector, supervisor, and approval status.
   - Display observation data sets on-line in a screen version of Daily Diaries.
   - Allow observation data sets to be approved or rejected on-line.
   - Print observation data sets in a paper version of Daily Diaries.
   - Print "CCO diary" to show only observations for a specified CCO.
   - Print "activity diary" to show only observations for a specified CPM activity.
   - Compute and display/print the Caltrans construction workday for each diary.

5. Report observation data.
   - Display/print an inspector work summary report by date, supervisor, inspector, contract.
   - Display/print a labor compliance report by date, Contractor, employee, contract.
   - Display/print an item detail report for labor hours by date, Contractor, contract, item/CCO/activity, structure/line.
   - Display/print an item detail report for equipment hours by date, Contractor, equipment ID, contract, item/CCO/activity, structure/line.
   - Display/print an item detail report for pay items by date, Contractor, contract, item/CCO/activity, structure/line.
   - Display/print an item detail report for remarks by date, remark type, contract, item/CCO/activity, structure/line.
   - Display/print an extra work report for labor hours by date, Contractor, contract, CCO.
   - Display/print an extra work report for equipment hours by date, Contractor, equipment ID, contract, CCO.
   - Display/print an extra work report for pay items by date, Contractor, contract, CCO.

6. Prepare source sheets for use in pay estimates.
   - Allow source sheets to be selected by contract, item and month.
   - Provide storage for estimate data on a per-item basis:
     - ◊ Original estimate quantity, changes due to CCO, and current estimate quantity.
     - ◊ Quantity previously paid, quantity paid this month, total paid to date.
   - Automatically retrieve all pay item observations for the given item and the given month and calculate the total.
   - Allow monthly total to be adjusted and reason for adjustment to be recorded.
   - Print the resulting source sheets.

7. Allow maintenance of control table data in the Oracle database:
   - Provide the ability to add, modify or delete entries in the database control tables:
     - ◊ Users (inspectors).
     - ◊ Weather conditions.
     - ◊ Labor classifications
     - ◊ Remark types.
     - ◊ Titles.
     - ◊ Name/phone list.
     - ◊ Contractors.
     - ◊ Laborers.
     - ◊ Equipment.
     - ◊ Contracts.
     - ◊ Contract items.
     - ◊ CCOs.
     - ◊ CPM activity codes.
     - ◊ Inspector assignments to contracts.
     - ◊ Contractor assignments to contract items.
   - Provide the ability to import lists of laborers & equipment from contractors into the database.
   - Maintain integrity of database constraints during edit and import processes.

8. Provide the capability of generating diagnostic reports to identify the following:
   - Duplication of labor, equipment, and materials entries on all diaries for any given date.

- Notification of labor and equipment entries as “new”.

HARDWARE REQUIREMENTS.--The Contractor shall furnish all hardware required for the electronic mobile daily diary computer system, including PDAs, desktop systems, servers, printers, and miscellaneous hardware. The minimum requirements for the various classes of hardware are as follows:

- PDA: Apple Newton 2000 Message Pad, or 100% compatible with 5 MB RAM card, 8MB ROM charging station, carrying case, and Newton OS 2.0.
- PC P166MMX, 24 RAM, 2.5 GB, 16X CD-ROM, and Windows NT user (client) license.
- Printer: HP LaserJet 5-series or 100% compatible.
- Network: Ethernet network with twisted-pair wiring and passive hub.

The Contractor shall supply hardware for the system in the following quantities.

- 35 – PDA and accessories as described above.
- 04 – desktop workstations as described above.
- 01 – printers as described above.
- as need it – misc. network hardware and cables as described above.
- 06 – PDA keyboards.
- 04 – PDA print packs.
- 35– Oracle Workgroup Server licenses.
- 200 - WriteRight screen enhancers
- 100 - Replacement styluses for PDAs

SUPPORT REQUIREMENTS.--The Contractor shall furnish all support required for the electronic mobile daily diary computer system. The minimum requirements for support are as follows:

- Installation: initial on-site installation and verification of hardware, software and networks.
- Training: initial on-site training for one half day for up to (35) Caltrans inspectors and database/system administrators.
- Telephone and e-mail support: the Caltrans system administrator may submit operational questions by telephone during normal business hours or by electronic mail at any time. Emergencies will receive immediate attention, and other questions will be answered within one business day.
- Software updates: occasional maintenance updates to the application software, as needed.
- On-site visits: scheduled visits to the installation site to check system operation, provide “refresher” or advanced training, install software updates, etc., as agreed with the Engineer.

The Contractor shall furnish support required for the Electronic Mobile Daily Diary Computer System for a period of 24 months following award of contract.

PAYMENT.--Attention is directed to Sections 9-1.06, "Partial Payments", and 9-1.07, "Payments after Acceptance", of the Standard Specifications and these special provisions. Payment for providing and implementing this Mobile Daily Diary Computer System will be made on a lump sum basis, in three milestones as follows:

- Milestone 1: This milestone will be satisfied upon delivery and installation of hardware and database software as described under "Hardware Requirements", above. Payment for milestone 1 = 45% of total item lump sum cost.
- Milestone 2: This milestone will be satisfied upon acceptance of the system by the Engineer as functionally complete per these specifications. Payment for milestone 2 = 25% of total item lump sum cost.
- Milestone 3: This milestone will be satisfied upon completion of initial training for Caltrans personnel. Training shall be held at a time and location approved by the Engineer. Payment for milestone 3 = 15% of total item lump sum cost.
- Milestone 4: This milestone will be satisfied upon completion of the third of three feedback sessions between the Electronic Mobile Daily Diary Computer System vendor and Caltrans engineers. Payment for milestone 4 = 15% of total item lump sum cost.

Mobile Daily Diary Computer System will be paid at a lump sum price.

The contract lump sum price paid for the Electronic Mobile Daily Diary Computer System shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in supplying the Mobile Daily Diary Computer System, complete and in place, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.12 ELECTRONIC MOBILE DAILY DIARY SYSTEM DATA DELIVERY

Attention is directed to Sections 5-1.10, "Equipment and Plants," and 7-1.01A(3), "Payroll Records," of the Standard Specifications, and these special provisions.

The Contractor shall submit to the Engineer a list of each piece of equipment and its identifying number, type, make, model and rate code in accordance with the Department of Transportation publication entitled “Labor Surcharge and Equipment Rental Rate” which is in effect on the date upon the work is performed, and the names,

labor rates and work classifications for all field personnel employed by the Contractor and all subcontractors in connection with the public work, together with such additional information as is identified below. This information shall be updated and submitted to the Engineer weekly through the life of the project.

This personnel information will only be used for this mobile daily diary computer system and it will not relieve the Contractor and subcontractors from all the payroll records requirements as required by Section 7-1.01A(3), "Payroll Records," of the Standard Specifications.

The Contractor shall provide the personnel and equipment information not later than 11 days after the contract award for its own personnel and equipment, and not later than 5 days before start of work by any subcontractor for the labor and equipment data of that subcontractor.

The minimum data to be furnished shall comply with the following specifications:

Data Content Requirements.--

1. The Contractor shall provide the following basic information for itself and for each subcontractor that will be used on the contract:

Company name.	Alphanumeric; up to 30 characters.
Address (line 1).	Alphanumeric; up to 30 characters.
Address (line 2).	Alphanumeric; up to 30 characters.
Address (city).	Alphanumeric; up to 30 chars.
Address (2-letter state code).	Alphanumeric; up to 2 characters.
Address (zip code)	Alphanumeric; up to 14 characters.
Contact name.	Alphanumeric; up to 30 characters
Telephone number (with area code).	Alphanumeric; up to 20 characters.
Company code: short company name.	Alphanumeric; up to 10 characters.
DBE status (Caltrans-supplied codes)	Alphanumeric; up to 10 characters.
Ethnicity for DBE status (Caltrans-supplied codes).	Alphanumeric; up to 10 characters.
List of laborers to be used on this contract (detail specified below).	
List of equipment to be used on this contract (detail specified below).	

For example, one such set of information for a company might be:

XYZ Company, Inc.
1240 9th Street Suite 600
Oakland, CA 94612
John Smith
(510) 834-9999
XYZ
MBE
Black

2. The Contractor shall provide the following information for each laborer who will be used on the contract:

Company code (as defined above).	Alphanumeric; up to 10 characters.
Last name.	Alphanumeric; up to 20 characters.
First name.	Alphanumeric; up to 15 characters.
Middle initial.	Alphanumeric; up to 1 characters.
Labor classification (Caltrans-provided codes).	Alphanumeric; up to 10 characters.
Hourly rate.	Alphanumeric; up to (6,2)
Trainee status (Y/N).	Alphanumeric; up to 1 characters
Ethnicity (Caltrans-provided codes).	Alphanumeric; up to 10 characters.
Gender.	Alphanumeric; up to 1 characters.

For example, one such set of information might be:

XYZ
Gonzalez
Hector
V
OPR
22.75
N
Hispanic
M

3. The Contractor shall provide the following information for each piece of equipment that will be used on the contract:

Company code (as defined above).	Alphanumeric; up to 10 characters.
Company's equipment ID number.	Alphanumeric; up to 10 characters.
Company's equipment description.	Alphanumeric; up to 60 characters.
Equipment type	Alphanumeric; up to 60

(from Caltrans ratebook).	characters.
Equipment make (from Caltrans ratebook).	Alphanumeric; up to 60 characters.
Equipment model (from Caltrans ratebook).	Alphanumeric; up to 60 characters.
Equipment rate code (from Caltrans ratebook).	Alphanumeric; up to 10 characters
Hourly rate.	Alphanumeric; up to (6,2)

For example, one such set of information might be:

XYZ
B043
CAT TRACTOR D-6C
TRACC
CAT
D-6C
3645
28.08

Data Delivery Requirements.--

1. All data described in" Data Requirements" of this section shall be delivered to the Department electronically, on 3 1/4" floppy disks compatible with the Microsoft Windows operating system. The Contractor shall provide a weekly disk and hard copy of the required correct updated personnel and equipment information for the Contractor and all the subcontractors and verified correct by the Engineer.
2. Data of each type of described in the previous section (contractor, labor, and equipment information) will be delivered separately, each type in one or more files on floppy disk. Any given file may contain information from one contractor or from multiple contractors, but only one type of data (contractor, labor, or equipment information).
3. The file format for all files delivered to Caltrans shall be standard tab-delimited, plain text files. Characteristics of this type of file are:

    - All data is in the form of plain ASCII characters.
    - Each row of data (company, person, equipment) is delimited by a carriage return character.
    - Within rows, each column (field) of data is delimited by a tab character. This type of file is the most standard type for interchange of formatted data; it can be created and read by all desktop spreadsheet and desktop database applications.

4. The files shall have the following columns (i.e., each row shall have the following fields):

    - Contractor info: 11 columns (fields) as specified in "Data Requirements #1", above.
    - Labor info: 9 columns (fields) as specified in "Data Requirements #2", above.
    - Equipment info: 8 columns (fields) as specified in "Data Requirements #3", above.

    For each type of file, columns (fields) must be in the order specified under "Data Requirements", above. All columns (fields) described under "Data Requirements" must be present for all rows, even if some column (field) values are empty. The first row of each file may contain column headers (in plain text) rather than data, if desired.

5. Column (field) contents must conform to the data type and length requirements described in the "Data Requirement" section, above. In addition, column (field) data must conform to the following restrictions:

    - Labor classification codes must conform to a list of standard codes that will be supplied by Caltrans.
    - DBE status codes must conform to a list of standard codes that will be supplied by Caltrans.
    - Ethnicity codes must conform to standard codes that will be supplied by Caltrans.
    - Data in the "trainee status" column must be either "Y" or "N".
    - Data in the "gender" column must be either "M" or "F".
    - Data in laborer last name, first name and middle initial fields shall be all uppercase. Any letters in the equipment number field shall likewise be uppercase.
    - Equipment owner's description may not be omitted. (The description, together with the equipment number, is how the equipment will be identified in the field.)
    - Equipment type, make, model, and ratebook code shall conform to the Department of Transportation Publication entitled “Labor Surcharge and Equipment Rental Rate”, which is in effect on the date upon the work is performed. If the equipment in question does not have an entry in the book then alternate, descriptive entries may be made in these fields.

6. The name of each file must indicate its contents, e.g., "XYZlab.txt" for laborers from XYZ Company, Inc. Each floppy disk supplied to Caltrans must be accompanied by a printed list of

the files it contains with a brief description of the contents of each file.

PAYMENT.-- Payment for providing electronic mobile daily diary computer system data delivery will be made on a lump sum basis .The lump sum bid price for electronic mobile daily diary computer system data delivery will be made according to the following schedule:

The Contractor will receive not more than 5 per cent per month of the total bid price for electronic mobile daily diary computer system data delivery .

After the completion of the work, 100 per cent payment will be made for electronic mobile daily diary computer system data delivery less the permanent deduction, if any, for failure to deliver complete weekly electronic mobile daily diary computer system data in each month.

The contract lump sum price paid for electronic mobile daily diary computer system data delivery shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in electronic mobile daily diary computer system data delivery as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

In the event the Contractor fails to deliver complete weekly electronic mobile daily diary computer system data in each month , the Department will retain 5 per cent of the total bid price for electronic mobile daily diary computer system data delivery until the data is delivered.

10-1.13 OBSTRUCTIONS

Attention is directed to Sections 8-1.10, "Utility and Non-Highway Facilities," and 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

The Contractor's attention is directed to the existence of certain facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 psi gauge; underground electric supply system conductors or cables, with potential to ground of more than 300 volts, either directly buried or in duct or conduit which do not have concentric grounded conductors or other effectively grounded metal shields or sheaths.

The Contractor's attention is directed to the existence of air lines, water lines, electrical conduits and wiring, and communication conduits and wiring plus access walkways, handrails and ladders, and construction/maintenance travelers installed on the bridge some of which are not depicted in the plans. Attention is also directed to a Materials Handout entitled "Bridge Utility and Maintenance Equipment On Eastbound (1958) Carquinez Bridge". Except for the Pac Bell fiber optic cable, the P G & E high pressure gas line, navigation radar reflectors, navigation lights and beacons, and conduits and wiring supplying power to the navigation lights, the Contractor may, with prior approval by the Engineer, relocate or temporarily remove utilities and other obstructions as shown in the "Bridge Utility and Maintenance Equipment Work" that interfere with the work. The Contractor is responsible for reinstalling all utilities removed and for demonstrating to the Engineer that the reinstalled utilities perform their function. Navigation lights and radar reflectors shall remain in service at all times. Where a navigation facility conflicts with the retrofit work, a replacement shall be in place and demonstrated as functional before the existing equipment is taken out of service. Temporary service or permanently relocated service for navigation lights shall be installed and connected to the power source and navigation light fixture before the existing service is removed. If construction/maintenance travelers are removed by the Contractor they shall not be reinstalled.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	1-800-642-2444 1-800-227-2600
Underground Service Alert-Southern California (USA)	1-800-422-4133 1-800-227-2600

The Contractor shall notify the Engineer ten days in advance of performing any work in the vicinity of existing Service Authority for Freeways and Expressways (SAFE) callboxes.

Existing "SAFE" callboxes where shown on the plans will be relocated by others during the progress of the contract. The Contractor shall make necessary arrangements with the relocating agency, through the Engineer, and shall submit a schedule of work, verified by a representative of the relocating agency, to the Engineer. The Contractor shall allow at least 5 working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications, for the relocating agency to complete each callbox relocation after said notification is received by the Engineer.

The Contractor shall schedule his work to keep the existing call boxes in operation at all times until the new relocated call boxes are complete and operational.

The Contractor shall provide to the Engineer a safety plan for the protection of the PG&E 26” Gas Riser and

Pipeline prior to doing any excavation work at Bents A9E through A13E, Bents D5 and D6, and Port Street realignment.

The Contractor shall notify the Engineer and the Union Pacific 24-hour Telecommunications "Call Before You Dig" number 1-800-336-9193 at least 48 hours prior to performing any work on Union Pacific Railroad Company property. No work shall be performed on Union Pacific Railroad Company property until optical conduit structures have been located and flagged by Union Pacific Telecommunications personnel.

It is anticipated that the following utility facilities will be relocated prior to the dates shown.

Utility	Location	Date
Pacific Bell Fiberoptics cable (abandon only within project limits)	Between Bent D5 and Pier 5, below bridge deck on eastbound structure, on face of Abutment 1	10/31/97
PG&E 26" Gas Line (U/G)	Between Bents D5 and A13E	11/30/97
PG&E Gas Line (U/G)	North of Abutment 1	9/22/97
PG&E 8" Gas Line	Between Bents D5 and A12E	11/30/97
PG&E 22" Gas Line	At Bents D2 and D3	8/15/97
PG&E Electrical Poles	At Port and Wanda and Vista del Rio	10/31/97
Pacific Bell Telephone Ductbank	At Bent A3E	10/31/97
EBMUD 8" Waterline &Fire Hydrant	Dowrelio Street at Port Street	8/28/97

In locations where paving operations will be conducted, the contractor shall reference all manholes, water valve street pots, and pull boxes in advance of the paving operation. The top of all manholes, water valve street pots and pull boxes shall be protected from the asphalt concrete during paving operations by means of plywood covers or as approved by the Engineer.

The Contractor shall notify PG&E in writing one-month prior to completing the east side retrofit work on the “A4E” Mainspan as described in “Order of Work” of these special provisions.

Installation of the following utility facilities will require coordination with the Contractor's operations. The Contractor shall make necessary arrangements with the utility company, through the Engineer, and shall submit a schedule of work, verified by a representative of the utility company, to the Engineer. The schedule of work shall provide not less than the following number of working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications for the utility company to complete their work.

Utility	Old Location	New Location	Working Days
PG&E 26” Gas Riser and Pipeline	riser at Bent A13E, pipeline on West side of bridge, above bottom chord.	riser at Pier 5, northeast corner / pipeline on east side of bridge	see Table 1
EBMUD 16" Water Line	Port Street	As indicated on plans	30

Within one month of contract approval as stated in Section 4 of these special provisions, the Contractor shall arrange coordination meetings with PG&E and EBMUD. At these meetings the Contractor shall explain to the utility companies the project schedule as it affects the relocations of their facilities.

The work by PG&E is generally as follows:

1. Excavate and install pipe anchor assembly and vault northeast of Abutment 1.
2. Construct a new pipeline on hangers constructed by the Contractor. The pipe will be pushed onto the bridge from the north end after the Contractor’s retrofit work in the bottom chord area of the east truss is completed.
3. Construct a new pipeline riser at Pier 5 on hangers constructed by the Contractor, after the Contractor’s retrofit work at Pier 5 is completed.
4. Install new pipeline in 30" casing jacked under railroad tracks between Pier 5 and Bent A13E. The earliest start date for this work is 170 working days after contract award.
5. Activate the new pipe line, then remove the existing gas line on the west side of the 1958 EB bridge and the riser at Bent A13E. No work by the Contractor in the bottom chord area of the west truss or at Bent A13E shall be done until the existing gas line and riser has been removed by PG&E.

The Contractor shall make available to PG&E certain areas within the project limits for the work by PG&E. The work areas required by PG&E are generally as indicated in Table 1.

No work shall be done on the west truss, at Bent A13E, or at the west side of the north abutment until the old gas line has been deactivated by PG&E, nor shall work be done on the east truss, at Pier 5, or at the east side of the north abutment after the new gas line has been

activated by PG&E without the express written approval of the Engineer.

Table 1: PG&E Gas Pipeline Work Areas

Location	Descrip-tion of Work	Approx. Duration	Remark
East shoulder north of abutment 1	Construct pipe anchor and vault, stockpile pipe materials	10 weeks	Begin after Abutment 1 work is complete 4 weeks before start of pipe installa-tion
East truss Abut 1 to Pier 5	Pipeline installation	6 weeks	Begin after retrofit and pipeline hanger work completed on East Truss
Pier 5, Bent A13E	Pipeline riser installa-tion and installa-tion of new pipeline under railroad tracks	2 weeks	Begin after retrofit work completed in Pier 5
Median north of bridge, and west side of bridge between Abutment 1 and Bent A13E	Remove old pipeline and riser	3 weeks	Must be completed before beginning of retrofit work on West Truss and Bent A13E.

The Work by EBMUD is generally as follows:

EBMUD will install a new waterline between Dowrelio Road and the intersection of Port and Wanda to replace the existing 16-inch waterline in Port Street. The Contractor shall coordinate with EBMUD to allow EBMUD to install the new pipeline prior to paving work on Wanda Street and Port Street.

In the event that the utility facilities mentioned above are not removed or relocated by the times specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by said times, the State will compensate the Contractor for such delays to the extent provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications, and not otherwise, except as provided in Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications.

10-1.14 DUST CONTROL

Dust control shall conform to the provisions in Section 10, "Dust Control," of the Standard Specifications and these special provisions.

No dust palliative shall be used for the alleviation or prevention of dust nuisance.

Water shall be used to control dust for any work within the C&H property. If Contractor dust control measures are not sufficient to prevent the deposition of dust on the C&H trailers, the Contractor shall clean the C&H trailers, at the Contractor's expense, to remove any residual dust.

10-1.15 MOBILIZATION

Mobilization shall conform to the provisions in Section 11, "Mobilization," of the Standard Specifications.

10-1.16 CONSTRUCTION AREA SIGNS

Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least 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 are not limited to the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	1-800-642-2444 1-800-227-2600
Underground Service Alert-Southern California (USA)	1-800-422-4133 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 there are 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 Tested Signing and Delineation Materials" elsewhere in these special provisions.

10-1.17 MAINTAINING TRAFFIC

Attention is directed to Sections 7-1.08, "Public Convenience," 7-1.09, "Public Safety," and 12, "Construction Area Traffic Control Devices," of the Standard Specifications and to the Section entitled "Public Safety" elsewhere in these special provisions, and these special provisions. Nothing in these special provisions shall be construed as relieving the Contractor from the responsibilities specified in Section 7-1.09.

The Contractor shall provide the Engineer, prior to establishing a lane closure, a contingency plan in the event of an equipment breakdown or materials failure which would delay opening the lane or lanes within the time limits specified elsewhere in these special provisions. Such contingency plan should include standby equipment and stockpiled materials for temporary use.

Acceptance of the contingency plan by the Engineer shall not relieve the Contractor from the requirement of opening the lane or lanes to public traffic as specified in "Traffic Control System for Lane Closure" of these special provisions. Full compensation for providing the contingency plan and implementing the plan shall be included in the various items of work requiring lane closures.

Should the Contractor fail to provide all lanes ready for use by public traffic at the times specified in the "Lane Closure Charts", damages will be assessed. For each 10 minute period, or fraction thereof, that all lanes are not available for use by public traffic, damages will amount to:

TOTAL CLOSURE OF EASTBOUND CARQUINEZ BRIDGE (BR. NO. 23-15R)

Specific 10-Minute Period (Lanes not available for use by public traffic)	Rate for Each Specific 10-Minute Period
10.1 to 180.0 minutes	$ 46,000
After 180 minutes	Zero

LANE CLOSURE ON ROUTE 80

Specific 10-Minute Period (Lanes not available for use by public traffic)	Rate for Each Specific 10-Minute Period
10.1 to 180.0 minutes	$ 10,000
After 180 minutes	Zero

The State will deduct such amount from any monies due, or that may become due, from the Contractor. It is expressly agreed upon by the parties that these specific damages to public traffic are uncertain and cannot be ascertained with any degree of accuracy and that, therefore, they are liquidated damages established at the time of entering the contract.

Traffic on Route 80 shall be rerouted from the bridge site during the jacking of tower legs and superstructure on the "A4E" main span. Traffic on Route 80 shall be rerouted from the bridge site during the jacking of superstructure on the "A4E" approach spans. During jacking of the tower legs, the approach span superstructure and at other times that the nature of the work requires the bridge to be closed to public traffic, the bridge closures shall conform to the requirements of these special provisions. Attention is also directed to “Steel Structures” of these special provisions.

The minimum size specified for Type II flashing arrow signs in the table following the second paragraph of Section 12-3.03, "Flashing Arrow Signs," of the Standard Specifications is amended to read "36 inches by 72 inches".

In the Standard Plans, Note 10 on Standard Plan T10, Note 9 on Standard Plan T10A, Note 5 on Standard Plan T11, Note 6 on Standard Plan T12, Note 5 on Standard Plan T13, and Note 4 on Standard Plan T14 are revised to read:

All traffic cones used for night lane closures shall have reflective cone sleeves as specified in the specifications.

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

During the hours of darkness traffic cones shall be affixed with reflective cone sleeves. The reflective sheeting of sleeves on the traffic cones shall be visible at 1,000 feet at night under illumination of legal high beam headlights, by persons with vision of or corrected to 20/20.

Reflective cone sleeves shall conform to the following:

1. Removable flexible reflective cone sleeves shall be fabricated from the reflective sheeting specified in the special provisions, have a minimum height of 13 inches and shall be placed a maximum of 3 inches from the top of the cone. The sleeves shall not be in place during daylight hours.
2. Permanently affixed semitransparent reflective cone sleeves shall be fabricated from the semitransparent reflective sheeting specified in the special provisions, have a minimum height of 13 inches, and shall be placed a maximum of 3 inches from the top of the cone. Traffic cones with semitransparent reflective cone sleeves may be used during daylight hours.
3. Permanently affixed double band reflective cone sleeves shall have 2 white reflective bands. The top band shall be 6 inches in height, placed a maximum of 4 inches from the top of the cone. The lower band shall be 4 inches in height, placed 2 inches

below the bottom of the top band. Traffic cones with double band reflective cone sleeves may be used during daylight hours.

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.

The moveable concrete barrier shall conform to the provisions in the section "Moveable Concrete Barrier" elsewhere in these special provisions. At locations shown on the plans, moveable concrete barrier shall be used on the Approach Structure and Main Spans, to facilitate closing and re-opening lanes, and to provide a safer environment for both the traveling public and workers.

The C16 and C17 designations of the signs shown on the detail "Entrance Ramp Without Turning Pockets" of Standard Plan T14 are amended to designate the signs as R16 and R17, respectively.

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

Local streets may be closed, fully or partially, in accordance with Table A, except as otherwise provided in these special provisions.

TABLE A

LOCAL STREET NAME (SEGMENT)	TRAFFIC MAINTENANCE PROVISION FOR VEHICULAR TRAFFIC
Vista Del Rio (140 feet northwest of freeway centerline to Pomona Street)	May be closed full-time for up to four months; at other times, with prior approval of the Engineer, may be closed between 8:00 pm and 7:00 am.
Pomona Street (within approximately 200 feet of freeway centerline)	Typically maintain one lane for each direction of traffic. With prior approval of the Engineer, may be reduced to a total of one 16-foot wide lane between 8:00 pm and 7:00 am, while traffic is handled with alternating one-way flows as per Standard Plan T13.
Sixth Avenue (Pomona Street to Ceres Street)	May be reduced to one 14-foot wide northbound-only lane for up to 6 months
Ceres Street (approximately 125 feet northwest of freeway centerline to Sixth Avenue)	May be closed full-time for up to 6 months; may be closed at other times, with prior approval of the Engineer. Wanda Street may not be closed when Ceres Street is closed.
Ceres Street (Sixth Avenue to Port Street)	Ceres Street shall be changed to one-way eastbound when Ceres Street is closed below bridge approach structures and/or when Sixth Avenue is reduced to one-way northbound temporarily.
Wanda Street (Ceres Street to Port Street)	May be closed full-time for up to 6 months; may be closed at other times, with prior approval of the Engineer. Ceres Street may not be closed when Wanda Street is closed. Must be finished by June 6, 1998.
Port Street (Wanda Street to Dowrelio Drive)	Typically maintain one lane for each direction of traffic. With prior approval of the Engineer, may be reduced to a total of one 12-foot wide lane for up to 24 hours, while traffic is handled with alternating one-way flows as per Standard Plan T13.

The Contractor shall provide local access, at all times, for the following streets:

Dowrelio Drive - access from Port Street.
Sixth Avenue - local access to east side between Pomona and Ceres Streets.
Ceres Street - local access between west of Carquinez Bridges and Wanda Street.
Port Street - local access between Ceres and Wanda Streets.

The Contractor shall provide an 11 ft lane on Wanda Street available for use by emergency vehicles.

Traffic Operations System (TOS) shall remain operational during retrofit construction and the Contractor shall provide full replacement and/or relocation of all TOS equipment affected by the project as described in "Signals, Lighting and Electrical Systems " elsewhere in these special provisions.

SCHEDULING CLOSURES.--On or before Wednesday of each week the Contractor shall furnish to

the Engineer a schedule of all proposed lane and ramp closures for the following Monday. Any request for changes to the weekly schedule shall be submitted to the Engineer for approval at least 24 hours prior to the proposed change or as required by the Engineer.

All requests must indicate the closure date(s), time(s) of closure, county, route, direction, post mile, description of facility closed (lane, on/off-ramp, connector ramp, collector road, shoulder, median, bridge, etc.).

Approval or denial of lane closure requests will be determined by 10:00 a.m. on the Friday preceding the week of the requested work. Approval does not allow closures other than the date, time, and location indicated. For closures that are postponed due to weather or other unforeseen circumstances, previously approved requests may be submitted for consideration of rescheduling during the week and will be approved only after a case-by-case review by the Engineer.

Request for approval for unforeseen lane closures may be submitted at any time, but immediate review/approval cannot be guaranteed. Those conflicting with previously approved closures will be denied. For critical unforeseen lane closure requests that must be responded to immediately, the Engineer shall be immediately contacted for timely resolution.

Curbside bus stops are located along both sides of Pomona Street, directly below the bridge approach structures. The southerly bus stop includes a portable shelter. The Contractor shall temporarily relocate the bus stops, shelter and related signs as required to allow accomplishing the work, to continue transit service, and in a manner approved by the Engineer. Pedestrian movements occur along Vista Del Rio and Pomona Street. The Contractor shall also maintain pedestrian movements in a manner approved by the Engineer. If deemed necessary by the Engineer, the Contractor shall construct pedestrian walkways along Pomona Street and Vista del Rio prior to commencing any work that could adversely affect pedestrian traffic. Pedestrian walkways shall be covered and shall have a minimum inside vertical clearance of eight feet and a minimum width of four feet. All construction of the covered pedestrian walkway shall conform to all requirements of the latest edition of the Uniform Building Code and as directed by the Engineer. Pedestrian walkways and the relocation of bus stops, the shelter and related signs will not be measured nor paid for. Full compensation for pedestrian walkways and the relocation of bus stops, the shelter and related signs shall be considered as included in the contract prices for other items of work involved and no additional compensation will be allowed therefor.

In addition to the provisions set forth in "Public Safety", elsewhere in these special provisions, whenever work to be performed on the freeway traveled way (except the work of installing, maintaining, and removing traffic control devices) is within 6 feet of the adjacent traffic lane, the adjacent traffic lane shall be closed.

Personal vehicles of the Contractor's employees shall not be parked within the right of way.

Contractor’s vehicles and personal vehicles of the Contractor’s employees shall not be parked in the parking lots both east and west of the Toll Plaza or in or around the maintenance facility on the north side of the roadway.

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

Whenever vehicles or equipment are parked on the shoulder within 6 feet of a traffic lane, the shoulder area shall be closed as shown on the plans.

Lanes and ramps shall be closed only during the hours shown on the charts included in this section "Maintaining Traffic." Except work required under said Sections 7-1.08 and 7-1.09, work that interferes with public traffic shall be performed only during the hours shown for lane closures.

Designated legal holidays are: January 1st, the third Monday in February, March 31, the last Monday in May, July 4th, the first Monday in September, November 11th, Thanksgiving Day, and December 25th. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When November 11th falls on a Saturday, the preceding Friday shall be a designated legal holiday.

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 his written approval. All other modifications will be made by contract change order.

LANE CLOSURE CHART NO. 1

Location: EASTBOUND ROUTE 80 FROM SOUTH OF CUMMINGS SKYWAY TO SOUTH OF TOLL PLAZA (Work Area Protected by Using Moveable Concrete Barrier)

Lane Requirements and Hours of Work

FROM HOUR TO HOUR	AM														PM										
Mondays through Thursdays																									
Fridays																									
Saturdays																									
Sundays																									
Day before Designated legal holiday																									
Designated Legal Holidays																									

Legend:

- No lane closure allowed.
- A minimum of one traffic lane shall be open for use by public traffic
- A minimum of two adjacent traffic lanes shall be open for use by public traffic
- A minimum of three adjacent traffic lanes shall be open for use by public traffic.

REMARKS:

All lanes on the Eastbound Carquinez Bridge may be closed between 12:30 AM and 4:00 AM, Tuesdays and Thursdays only, for the duration of the project and as approved by the Engineer, when required in the interests of public safety.

LANE CLOSURE CHART NO. 2

Location: EASTBOUND ROUTE 80 FROM SOUTH OF CUMMINGS SKYWAY TO SOUTH OF TOLL PLAZA (Work Area Protected by Using Portable Channelizing Devices)

Lane Requirements and Hours of Work

FROM HOUR TO HOUR	AM												PM											
Mondays through Thursdays																								
Fridays																								
Saturdays																								
Sundays																								
Day before Designated legal holiday																								
Designated Legal Holidays																								

Legend:

- No lane closure allowed.
- A minimum of one traffic lane shall be open for use by public traffic
- A minimum of two adjacent traffic lanes shall be open for use by public traffic
- A minimum of three adjacent traffic lanes shall be open for use by public traffic.

REMARKS:

All lanes on the Eastbound Carquinez Bridge may be closed between 12:30 AM and 4:00 AM, Tuesdays and Thursdays only, for the duration of the project and as approved by the Engineer, when required in the interests of public safety.

LANE CLOSURE CHART NO. 3

Location: WESTBOUND ROUTE 80 FROM MAGAZINE TO CUMMINGS SKYWAY																								
Lane Requirements and Hours of Work																								
	AM												PM											
FROM HOUR TO HOUR																								
Mondays through Thursdays																								
Fridays																								
Saturdays																								
Sundays																								
Day before Designated legal holiday																								
Designated Legal Holidays																								

MULTILANE

Legend:

	No lane closure allowed.
	A minimum of one traffic lane shall be open for use by public traffic
	A minimum of two adjacent traffic lanes shall be open for use by public traffic

REMARKS:

RAMP CLOSURE CHART NO. 1

Location: EASTBOUND ROUTE 80 ON-RAMP FROM POMONA

Lane Requirements and Hours of Work

	AM												PM											
FROM HOUR TO HOUR																								
Mondays through Thursdays	■	■	■	■	■	■	■	■	■										■	■	■	■	■	
Fridays	■	■	■	■	■	■	■	■	■												■	■	■	
Saturdays	■	■	■	■	■	■	■												■	■	■	■	■	
Sundays	■	■	■	■	■	■	■	■													■	■	■	
Day before Designated legal holiday	■	■	■	■	■	■	■	■	■												■	■	■	
Designated Legal Holidays	■	■	■	■	■	■	■	■													■	■	■	

Legend:

RAMPS

☐ No ramp closure allowed.

■ Ramp may be completely closed.

REMARKS:

1. Only one ramp, either the Eastbound On-Ramp or Eastbound Off-Ramp, may be closed at any one time.
2. When Eastbound On-Ramp is closed, the ramp shall have provisions for a continuous 11 ft wide lane on the ramp for use by emergency vehicles at all times.
3. The Eastbound On-Ramp shall have a minimum of 1000 ft parallel lane plus a 300 ft taper for acceleration at all times.
4. The Eastbound On-Ramp shall be closed when 2 or more lanes are closed on the 1958 EB Bridge.
5. The Eastbound On-Ramp shall be closed for all of Stage 3.
6. See Detour Plan in Plans.

RAMP CLOSURE CHART NO. 2

Location: EASTBOUND ROUTE 80 OFF-RAMP TO SAN PABLO AVENUE																							
Lane Requirements and Hours of Work																							
	AM												PM										
FROM HOUR TO HOUR																							
Mondays through Thursdays																							
Fridays																							
Saturdays																							
Sundays																							
Day before Designated legal holiday																							
Designated Legal Holidays																							

Legend:

RAMPS

☐ No ramp closure allowed.

▨ Ramp may be completely closed.

REMARKS:

1. Only one ramp, either the Eastbound On-Ramp or Eastbound Off-Ramp, may be closed at any one time.
2. Only three (3) closures, as approved by the Engineer, will be allowed for this ramp.
3. See Detour Plan in Plans.

10-1.18 TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE

A traffic control system shall consist of closing traffic lanes and ramps in accordance with the details shown on the plans, the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, the provisions under "Maintaining Traffic" and "Construction Area Signs" elsewhere in these special provisions and these special provisions.

The provisions in this section will not relieve the Contractor from the responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.09, "Public Safety," of the Standard Specifications.

During traffic stripe operations and pavement marker placement operations using bituminous adhesive, traffic shall be controlled, at the option of the Contractor, with either stationary or moving type lane closures. During all other operations traffic shall be controlled with stationary type lane closures. The Contractor's attention is directed to the provisions in Section 84-1.04, "Protection From Damage," and Section 85-1.06, "Placement," of the Standard Specifications.

If 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 the component to its original condition or replace the component and shall restore the component to its original location.

STATIONARY TYPE LANE CLOSURE.--When lane and ramp closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the Contractor so elects, the components may be stored at selected central locations, approved by the Engineer, within the limits of the highway right of way.

Each vehicle used to place, maintain and remove components of a traffic control system on multilane highways shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining, or removing the components. Vehicles equipped with Type II flashing arrow sign not involved in placing, maintaining, or removing the components when operated within a stationary type lane closure shall only display the caution display mode. The sign shall be controllable by the operator of the vehicle while the vehicle is in motion. The flashing arrow sign shown on the plans shall not be used on the vehicles which are doing the placing, maintaining and removing of components of a traffic control system, and shall be in place before a lane closure requiring its use is completed.

MOVING TYPE LANE CLOSURE.--Flashing arrow signs used in moving lane closures shall be truck-mounted. Changeable message signs used in moving lane closure operations shall conform to Section 12-3.12, "Portable Changeable Message Signs," of the Standard Specifications, except the signs shall be truck-mounted and the full operation height of the bottom of the sign may be less than 7 feet above the ground, but should be as high as practicable.

Truck-mounted crash cushions (TMCC) for use in moving lane closures shall be any of the following approved models, or equal:

(1)

Hexfoam TMA Series 3000 and
Alpha 1000 TMA Series 1000 and
Alpha 2001 TMA Series 2001

Manufacturer:	Distributor(Northern):
Energy Absorption Systems, Inc. One East Wacker Drive Chicago, IL 60601-2076 Telephone (312) 467-6750	Traffic Control Service, Inc. 8585 Thys Court Sacramento, CA 95828 Telephone (800) 884-8274 FAX (916) 387-9734
	Distributor(Southern):
	Traffic Control Service, Inc. 1881 Betmor Lane Anaheim, CA 92805 Telephone (800) 222-8274

(2)

Cal T-001 Model 2 or Model 3

Manufacturer:	Distributor:
Hexcel Corporation 11711 Dublin Blvd. P.O. Box 2312 Dublin, CA 94568 Telephone (510) 828-4200	Hexcel Corporation 11711 Dublin Blvd. P.O. Box 2312 Dublin, CA 94568 Telephone (510) 828-4200

(3)

Renco Rengard Model Nos.
CAM 8-815 and RAM 8-815

Manufacturer:	Distributor:
Renco Inc. 1582 Pflugerville Loop Road P.O. Box 730 Pflugerville, TX 78660-0730 Telephone (800) 654-8182	Renco Inc. 1582 Pflugerville Loop Road P.O. Box 730 Pflugerville, TX 78660-0730 Telephone (800) 654-8182

Each TMCC shall be individually identified with the manufacturer's name, address, TMCC model number, and a specific serial number. The names and numbers shall

each be a minimum 1/2 inch high, and located on the left (street) side at the lower front corner. The TMCC shall have a message next to the name and model number in 1/2 inch high letters which states, "The bottom of this TMCC shall be ___ inches ± ___ inches above the ground at all points for proper impact performance." Any TMCC which is damaged or appears to be in poor condition shall not be used unless recertified by the manufacturer. The Engineer shall be the sole judge as to whether used TMCCs supplied under this contract need recertification. Each unit shall be certified by the manufacturer to meet the requirements for TMCCs in accordance with the standards established by the Transportation Laboratory Structures Research Section.

Approvals for new TMCC designs proposed as equal to the above approved models shall be in accordance with the procedures (including crash testing) established by the Transportation Laboratory Structures Research Section. For information regarding submittal of new designs for evaluation contact:

Transportation Laboratory
Structures Research Section
P.O. Box 19128
5900 Folsom Boulevard
Sacramento, CA 95819

New TMCCs proposed as equal to approved TMCCs or approved TMCCs determined by the Engineer to need recertification shall not be used until approved or recertified by the Transportation Laboratory Structures Research Section.

PAYMENT.--The contract lump sum price paid for traffic control system shall include full compensation for furnishing all labor (except for flagging costs), materials (including signs), tools, equipment and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control system as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Flagging costs will be paid for as provided in Section 12-2.02, "Flagging Costs," of the Standard Specifications.

The adjustment provisions in Section 4-1.03, "Changes," of the Standard Specifications, shall not apply to the item of traffic control system. Adjustments in compensation for traffic control system will be made only for increased or decreased traffic control system required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary. Such adjustment will be made on a force account basis as provided in Section 9-1.03, "Force Account Payment," of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

Traffic control system required by work which is classed as extra work, as provided in Section 4-1.03D of the Standard Specifications, will be paid for as a part of the extra work.

10-1.19 TRAFFIC CONTROL (CROSSOVER DETOUR)

Traffic control (crossover detour) shall consist of traffic control in accordance with the details shown on the plans for Stage 2B and Stage 3B, as directed by the Engineer, the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, the provisions under "Maintaining Traffic" and "Construction Area Signs" elsewhere in these special provisions and these special provisions.

The provisions in this section will not relieve the Contractor from the responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.09, "Public Safety," of the Standard Specifications.

If any component in the traffic control (crossover detour) is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair the component to its original condition or replace the component and shall restore the component to its original location.

The components of traffic control (crossover detour) include construction area signs, temporary crash cushion module, temporary railing (Type K), flashing arrow signs, Type III barricade, object markers, warning lights and cones.

Construction area signs, Type III barricade, temporary railing (Type K) and temporary crash cushion module shall conform to the provisions in Section "Construction Area Signs," "Barricades," "Temporary Railing," and "Temporary Crash Cushion Module" elsewhere in these special provisions.

Warning lights shall be furnished, placed and maintained at the locations shown on the plans or as directed by the Engineer.

If warning lights are displaced or are not in an upright position, from any cause, during the progress of the work, the Contractor shall immediately repair and repaint or replace the warning lights in their original locations.

At the end of each night's work, all warning light units shall be removed from the traveled way. If the Contractor so elects, the warning light units may be stored at selected central locations, approved by the Engineer, within the limits of the highway right of way. Full compensation for placing, removing and storing warning light units daily as the work progresses shall be considered as included in the contract unit price paid for traffic control (crossover detour) and no additional compensation will be allowed therefor.

Each warning light unit shall consist of a lighting unit, housing, batteries and mounting hardware. The units shall be assembled for a complete, self-contained, warning light

which can be delivered to the site and mounted on barricades.

Warning lights on barricades shall be installed to a minimum mounting height of 36 inches to the bottom of the lens.

Warning lights are portable, lens directed, enclosed lights. The color of the lights emitted shall be yellow in a steady-burn mode.

Lights shall be maintained so as to be capable of being visible on a clear night from a distance of 3000 feet.

The lens shall be illuminated by means of electric lamp behind the lens and shall be externally illuminated by retro-reflective elements built into the lens.

The lens shall be bidirectional lens and shall not be less than seven inches in diameter, including a retro-reflector ring of approximately $^1/_2$" width around a minimum of 300° of the periphery.

Lens shall be of one-piece construction of plastic.

Housing is defined as the case containing the batteries and circuitry. The housing shall be constructed of No. 18 U.S. Standard Gauge Steel or any other material which by engineering judgement is considered capable of withstanding considerable abuse. The case must be secured by a locking device.

The housing and the lens frame, if of corrodable metal, shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry, shall completely obscure the metal substrate. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint shall not chip or crack, and if scratched with a knife shall not powder.

The case shall be so constructed and closed as to exclude moisture that would affect the specified operation of the light. The case shall have a weephole to allow the escape of moisture.

Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 Lux.

Warning lights shall be in accordance with the Institute of Transportation Engineers Purchase Specification for Flashing and Steady Burn Warning Lights or as approved by the Engineer.

The light distribution shall have a minimum lateral width of ±9 degrees and a minimum vertical height of ±5 degrees from the optical axis of the system. The luminous intensity shall not drop below 2.0 candelas during the first 168 hours of continuous burning. S.A.E. (Society of Automotive Engineers) Standard J 575, most recent edition, shall be used to test the intensity of the light. The specific intensity of the retroreflection at an observation angle of 0.2 degrees and a light incidence angle of zero (0) degrees shall not be less than 1.67 candelas/lux. Reflex-reflection shall be tested in accordance with the most recent edition of S.A.E. Standard J 594.

Warning lights furnished shall be tested in accordance with the latest revision of A.T.S.A (American Traffic Services Association) Test Procedure T-101.

If the light uses an incandescent lamp, the chromaticity of the lens color shall be defined by the trilinear coordinates of the C.I.E. Standards (Commission International d'Eclairage).When tested with illuminants from 2856K to 2366K, the lens color shall fall within the area of the Chromaticity Diagram according to the 1931 C.I.E. Standard Observer defined by the following coordinates:

X	Y	Z
0.543	0.452	0.005
0.548	0.452	0.000
0.584	0.411	0.005
0.589	0.411	0.000

If the light uses other than an incandescent lamp, the light output shall be in the same range as the light obtained with the incandescent lamp and the specific lens.

The minimum relative luminous transmittance of the lens with illuminant at 2856 shall be 0.440.

The lens material shall be plastic capable of producing a lens that can meet the chromaticity and luminous transmission requirements of this specification. The lens material shall meet the test requirements set forth in the most recent edition of S.A.E. Standard J 576 (Society of Automotive Engineers, Inc. "Lighting Equipment and Photometric Tests") except that the exposure time and conditions (S.A.E. Standard, Paragraph 3.4.3) for the purpose of this standard shall be one year.

Warning lights shown on the plans as part of a traffic control system shall be considered as part of that traffic control (crossover detour) and will be paid for as specified under "Traffic Control(Crossover Detour)," elsewhere in these special provisions.

MEASUREMENT AND PAYMENT.--Traffic control (crossover detour) will be measured by each time the crossover detour is used.

The contract unit price paid for traffic control (crossover detour) shall include full compensation for furnishing all labor, materials (including signs), tools, equipment and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing, resetting and disposing of the components of the traffic control (crossover detour) as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The adjustment provisions in Section 4-1.03, "Changes," of the Standard Specifications, shall not apply to the item of traffic control (crossover detour). Adjustments in compensation for traffic control (crossover detour) will be made only for increased or decreased traffic control (crossover detour) required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control (crossover detour). Such adjustment will be made on a force account basis as provided in Section 9-1.03, "Force Account Payment," of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

Traffic control (crossover detour) required by work which is classed as extra work, as provided in Section 4-1.03D of the Standard Specifications, will be paid for as a part of the extra work.

Traffic control for lane and ramp closures required for the crossover detour shall be paid for as part of the item for traffic control system, elsewhere in these special provisions.

10-1.20 TEMPORARY PAVEMENT DELINEATION

Temporary pavement delineation shall be furnished, placed, maintained and removed in accordance with the provisions in Section 12-3.01, "General," of the Standard Specifications and these special provisions. Nothing in these special provisions shall be construed as to reduce the minimum standards specified in the Manual of Traffic Controls published by the Department or as relieving the Contractor from the responsibilities specified in Section 7-1.09, "Public Safety," of the Standard Specifications.

GENERAL.--Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled way to public traffic. Laneline or centerline pavement delineation shall be provided at all times for traveled ways open to public traffic. On multilane roadways (freeways and expressways) edgeline delineation shall be provided at all times for traveled ways open to public traffic.

All work necessary, including any required lines or marks, to establish the alignment of temporary pavement delineation shall be performed by the Contractor. Surfaces to receive temporary pavement delineation shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation.

Temporary pavement markers and removable traffic tape which is applied to the final layer of surfacing or existing pavement to remain in place or which conflicts with a subsequent or new traffic pattern for the area shall be removed when no longer required for the direction of public traffic, as determined by the Engineer.

TEMPORARY LANELINE AND CENTERLINE DELINEATION.--Whenever lanelines or centerlines are obliterated and temporary pavement delineation to replace the lines is not shown on the plans, the minimum laneline and centerline delineation to be provided for that area shall be temporary reflective pavement markers placed at longitudinal intervals of not more than 24 feet. The temporary reflective pavement markers shall be the same color as the laneline or centerline the pavement markers replace. Temporary reflective pavement markers shall be, at the option of the Contractor, one of the temporary pavement markers listed for short term day/night use (14 days or less) or long term day/night use (6 months or less) in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Temporary reflective pavement markers shall be placed in accordance with the manufacturer's instructions and shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used to place pavement markers in areas where removal of the pavement markers will be required.

Temporary laneline or centerline delineation consisting entirely of temporary reflective pavement markers placed on longitudinal intervals of not more than 24 feet, shall be used on lanes opened to public traffic for a maximum of 14 days. Prior to the end of the 14 days the permanent pavement delineation shall be placed. If the permanent pavement delineation is not placed within the 14 days, the Contractor shall provide additional temporary pavement delineation and the cost thereof shall be borne by the Contractor. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent pavement delineation for the area, as determined by the Engineer.

Full compensation for furnishing, placing, maintaining and removing the temporary reflective pavement markers, used for temporary laneline and centerline delineation for those areas where temporary laneline and centerline delineation is not shown on the plans and for providing equivalent patterns of permanent traffic lines for those areas when required, shall be considered as included in the contract prices paid for the items of work that obliterated the laneline and centerline pavement delineation and no separate payment will be made therefor.

TEMPORARY EDGELINE DELINEATION.--On multilane roadways (freeways and expressways) whenever edgelines are obliterated and temporary pavement delineation to replace those edgelines is not shown on the plans, the edgeline delineation to be provided for those areas adjacent to lanes open to public traffic shall be as follows:

Temporary pavement delineation for right edgelines shall, at the option of the Contractor, consist of either a solid 4-inch wide traffic stripe of the same color as the stripe the temporary edgeline delineation replaces, or traffic cones, portable delineators or channelizers placed at longitudinal intervals not to exceed 100 feet.

Temporary pavement delineation for left edgelines shall, at the option of the Contractor, consist of either solid 4-inch wide traffic stripe of the same color as the stripe the temporary edgeline delineation replaces, or traffic cones, portable delineators or channelizers placed at longitudinal intervals not to exceed 100 feet; or temporary reflective pavement markers placed at longitudinal intervals of not more than 6 feet. Temporary

pavement markers used for temporary left edgeline delineation shall be one of the types of temporary pavement markers listed for short term day/night use (14 days or less) or long term day/night use (6 months or less) in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Four-inch wide traffic stripe placed for temporary edgeline delineation which will require removal shall conform to the requirements of temporary traffic stripe (tape) specified herein. Where removal of the 4-inch wide traffic stripe will not be required painted traffic stripe conforming to the requirements of temporary traffic stripe (paint) specified herein may be used. The quantity of temporary traffic stripe (tape) or temporary traffic stripe (paint) used for this temporary edgeline delineation will not be included in the quantities of tape or paint to be paid for.

The lateral offset for traffic cones, portable delineators or channelizers used for temporary edgeline delineation shall be as determined by the Engineer. If traffic cones or portable delineators are used as temporary pavement delineation for edgelines, the Contractor shall provide personnel to remain at the jobsite to maintain the cones or delineators during all hours of the day that they are in use.

Channelizers used for temporary edgeline delineation shall be the surface mounted type and shall be orange in color. Channelizer bases shall be cemented to the pavement in the same manner provided for cementing pavement markers to pavement in the section of these special provisions entitled "Pavement Markers," except epoxy adhesive shall not be used to place channelizers on the top layer of pavement. Channelizers shall be, at the Contractor's option, one of the surface mount types (36") listed in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Temporary edgeline delineation shall be removed when no longer required for the direction of public traffic, as determined by the Engineer.

The quantity of channelizers used as temporary edgeline delineation will not be included in the quantity of channelizers to be paid for. Full compensation for furnishing, placing, maintaining and removing the temporary edgeline delineation for those areas where temporary edgeline delineation is not shown on the plans shall be considered as included in the contract prices paid for the items of work that obliterated the edgeline pavement delineation and no separate payment will be made therefor.

TEMPORARY TRAFFIC STRIPE (TAPE).-- Temporary traffic stripe consisting of removable traffic stripe tape shall be applied at the locations shown on the plans. The temporary traffic stripe tape shall be complete in place at the location shown, prior to opening the traveled way to public traffic.

Removable traffic stripe tape shall be the temporary removable type traffic stripe tape listed in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Removable traffic stripe tape shall be applied in accordance with the manufacturer's installation instructions and shall be rolled slowly with a rubber tired vehicle or roller to ensure complete contact with the pavement surface. Traffic stripe tape shall be applied straight on tangent alignment and on a true arc on curved alignment. Traffic stripe tape shall not be applied when the air or pavement temperature is less than 50° F., unless the installation procedures to be used are approved by the Engineer, prior to beginning installation of the tape.

TEMPORARY PAVEMENT MARKERS.-- Temporary pavement markers shall be applied at the locations shown on the plans. The pavement markers shall be applied complete in place at the location shown, prior to opening the traveled way to public traffic.

Temporary pavement markers shown on the plans shall be, at the option of the Contractor, one of the temporary reflective pavement markers for long term day/night use (6 months or less) listed in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Temporary pavement markers shall be placed in accordance with the manufacturer's instructions and shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used in areas where removal of the pavement markers will be required.

Where the temporary pavement delineation shown on the plans for lanelines or centerlines consists entirely of a pattern of broken traffic stripe and pavement markers, the Contractor may use groups of the temporary reflective pavement markers for long term day/night use (6 months or less) listed in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions, in place of the temporary traffic stripe tape or painted temporary traffic stripe. The groups of pavement markers shall be spaced as shown on the plans for a similar pattern of permanent traffic line, except pavement markers shown to be placed in the gap between the broken traffic stripe shall be placed as part of the group to delineate the pattern of broken temporary traffic stripe. The kind of laneline and centerline delineation selected by the Contractor shall be continuous within a given location. Payment for temporary pavement markers used in place of temporary traffic stripe will be made on the basis of the theoretical quantities of temporary traffic stripe (tape), temporary traffic stripe (paint) and temporary pavement markers required for the pattern the pavement markers replace.

Reflective pavement markers conforming to the requirements of "Pavement Markers" of these special provisions may be used in place of temporary reflective pavement markers for long term day/night use (6 months or less) except at locations to simulate patterns of broken traffic stripe. Placement of the reflective pavement markers used for temporary pavement markers shall conform to said section "Pavement Markers" of these special provisions except; the waiting period requirements

before placing the pavement markers on new asphalt concrete surfacing as specified in Section 85-1.06, "Placement," of the Standard Specifications shall not apply and epoxy adhesive shall not be used to place pavement markers in areas where removal of the pavement markers will be required.

MEASUREMENT AND PAYMENT.--Temporary traffic stripe (tape) will be measured and paid for by the linear foot, measured along the line of the stripe, with deductions for gaps in broken traffic stripes. Double and 8-inch temporary traffic stripes, shown on the plans as tape, will be measured as 2 temporary traffic stripes (tape).

Temporary pavement markers, shown on the plans, will be measured and paid for as units in the same manner specified for reflective pavement markers as provided in Section 85-1.08, "Measurement," and Section 85-1.09, "Payment," of the Standard Specifications. Temporary pavement markers, used for temporary laneline and centerline delineation for areas which are not shown on the plans will not be included in the quantities of temporary pavement markers to be paid for. Full compensation for removing temporary pavement markers, when no longer required, shall be considered as included in the contract unit price paid for temporary pavement marker and no separate payment will be made therefor.

The contract price paid per linear foot for temporary traffic stripe (tape) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in applying, maintaining and removing the temporary traffic stripe tape, complete in place, as shown on the plans, as specified in the Standard Specification and these special provisions, and as directed by the Engineer.

10-1.21 BARRICADES

Barricades shall be furnished, placed, and maintained at the locations designated by the Engineer, shown on the plans, or specified and shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Type II reflective sheeting for stripes on barricade rail faces shall conform to the requirements specified under "Prequalified and Tested Signing and Delineation Materials," elsewhere in these special provisions.

Construction area sign and marker panels conforming to the requirements in Section 12-3.06, "Construction Area Signs," of the Standard Specifications shall be installed on barricades as directed by the Engineer at the locations shown on the plans.

Sign panels for construction area signs and marker panels installed on barricades shall conform to the requirements of sign panels for stationary mounted signs in Section 12-3.06A, "Stationary Mounted Signs," of the Standard Specifications.

Full compensation for furnishing, installing, maintaining, and removing construction area signs and markers on barricades shall be considered as included in the contract unit price or prices paid for the type or types of barricade and no separate payment will be made therefor.

Barricades shown on the plans as part of a traffic control system or traffic control (crossover detour) will be paid for as provided in "Traffic Control System for Lane Closure" or "Traffic Control (Crossover Detour)," elsewhere in these special provisions, and will not be included in counts for payment for barricades.

10-1.22 PORTABLE CHANGEABLE MESSAGE SIGN

Portable changeable message signs shall be furnished, placed, operated, and maintained at locations shown on the plans and shall conform to the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Attention is directed to "Maintaining Traffic" of these special provisions concerning the use of the portable changeable message signs.

10-1.23 TEMPORARY RAILING

Temporary railing (Type K) shall be placed at the locations shown on the plans, specified in these special provisions or in the Standard Specifications or ordered by the Engineer, and shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Temporary railing (Type K) fabricated prior to January 1, 1993, with one longitudinal No. 5 reinforcing steel bar near the top in lieu of the 2 longitudinal No. 5 reinforcing steel bars near the top, as shown on the plans, may be used.

The Contractor's attention is directed to the provisions in "Public Safety" and "Order of Work" elsewhere in these special provisions.

Temporary railing (Type K) placed in accordance with the provisions in "Public Safety" elsewhere in these special provisions will not be measured nor paid for.

Reflectors and adhesive for temporary railing (Type K) shall be furnished by the Contractor. Reflectors shall be, at the option of the Contractor, one of the non-impactable type concrete barrier markers listed in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions. Adhesive for mounting reflectors shall be per manufacturers recommendations and as approved by the Engineer.

Full compensation for reflectors and adhesive shall be considered as included in the contract price paid per linear foot for temporary railing (Type K) and no separate payment will made therefor.

Temporary railing (Type K) shown on the plans as part of the traffic control (crossover detour) will be measured and paid for as provided in "Traffic Control

(Crossover Detour)," elsewhere in these special provisions and will not be included in counts for payment for temporary railing (Type K).

10-1.24 CHANNELIZERS

Channelizers shall be surface mounted type and shall be furnished, placed and maintained at the locations shown on the plans and shall conform to the provisions in Sections 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Channelizers shall conform to the provisions in "Prequalified and Tested Signing and Delineation Materials," elsewhere in these special provisions.

Channelizer posts shall be orange in color.

At the option of the Contractor, channelizer bases may be cemented to the pavement using hot melt bitumen adhesive and in the same manner provided for cementing pavement markers to pavement in the section of these special provisions entitled "Pavement Markers."

10-1.25 TEMPORARY CRASH CUSHION MODULE

This work shall consist of furnishing, installing and maintaining sand filled temporary crash cushion modules in groupings or arrays at each location shown on the plans, specified in the special provisions or directed by the Engineer. The grouping or array of sand filled modules shall form a complete sand filled temporary crash cushion in accordance with the details shown on the plans and these special provisions.

Attention is directed to "Public Safety" and "Order of Work" of these special provisions.

GENERAL.--Whenever the work or the Contractor's operations establishes a fixed obstacle, the exposed fixed obstacle shall be protected with a sand filled temporary crash cushion. The sand filled temporary crash cushion shall be in place prior to opening the lanes adjacent to the fixed obstacle to public traffic.

Sand filled temporary crash cushions shall be maintained in place at each location, including times when work is not actively in progress. Sand filled temporary crash cushions may be removed during a work period for access to the work provided that the exposed fixed obstacle is 15 feet or more from a lane carrying public traffic and the temporary crash cushion is reset to protect the obstacle prior to the end of the work period in which the fixed obstacle was exposed. When no longer required, as determined by the Engineer, sand filled temporary crash cushions shall be removed from the site of the work.

MATERIALS.--At the Contractor's option, the modules for use in sand filled temporary crash cushions shall be either of the following types or equal:

Energite Inertial Modules

Manufacturer:

Energy Absorption Systems, Inc.
One East Wacker Drive
Chicago, IL 60601-2076
Telephone (312) 467-6750

Distributor(Northern):

Traffic Control Service, Inc.
8585 Thys Court
Sacramento, CA 95828
Telephone (800) 884-8274
FAX (916) 387-9734

Distributor(Southern):

Traffic Control Service, Inc.
1881 Betmor Lane
Anaheim, CA 92805
Telephone (800) 222-8274

or Fitch Inertial Modules

National Distributor:

Roadway Safety Service, Inc.
700-3 Union Parkway
Ronkonkoma, NY 11779

Distributor:

Singletree Sales Company
1533 Berger Drive
San Jose, CA 95112
Telephone (800) 822-7735

Modules contained in each temporary crash cushion shall be of the same type at each location. The color of the modules shall be the standard yellow color as furnished by the vendor, with black lids. The modules shall exhibit good workmanship free from structural flaws and objectionable surface defects. The modules need not be new. Good used undamaged modules conforming to color and quality of the types specified above may be utilized. If used Fitch modules requiring a seal are furnished, the top edge of the seal shall be securely fastened to the wall of the module by a continuous strip of heavy duty tape.

Modules shall be filled with sand in accordance with the manufacturer's directions, and to the sand capacity in pounds for each module as shown on the plans. Sand for filling the modules shall be clean washed concrete sand of commercial quality. At the time of placing in the modules, the sand shall contain not more than 7 percent water, as determined by California Test 226.

Modules damaged due to the Contractor's operations shall be repaired immediately by the Contractor at his expense. Modules damaged beyond repair, as determined by the Engineer, due to the Contractor's operations shall be removed and replaced by the Contractor at his expense.

INSTALLATION.--Temporary crash cushion modules shall be placed on movable pallets or frames conforming to the dimensions shown on the plans. The pallets or frames shall provide a full bearing base beneath the modules. The modules and supporting pallets or frames shall not be moved by sliding or skidding along the pavement or bridge deck.

A Type R or P marker panel shall be attached to the front of the crash cushion as shown on the plans, when the closest point of crash cushion array is within 12 feet of the traveled way. The marker panel, when required, shall be firmly fastened to the crash cushion with commercial quality hardware or by other methods approved by the Engineer.

At the completion of the project, temporary crash cushion modules, sand filling, pallets or frames, and marker panels shall become the property of the Contractor and shall be removed from the site of the work. Temporary crash cushion modules shall not be installed in permanent work.

MEASUREMENT AND PAYMENT.--Temporary crash cushion modules will be measured by the unit determined from the actual count of modules used in the work or ordered by the Engineer at each location. Temporary crash cushion modules placed in accordance with the provisions in "Public Safety" elsewhere in these special provisions and modules placed in excess of the number specified or shown will not be measured nor paid for.

Temporary crash modules shown on the plans as part of a traffic control (crossover detour) or moveable concrete barrier will be paid for as provided in "Traffic Control (Crossover Detour)" or in "Moveable Concrete Barrier."

Repairing modules damaged by public traffic will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications. Modules damaged beyond repair by public traffic, when ordered by the Engineer, shall be removed and replaced immediately by the Contractor. Modules replaced due to damage by public traffic will be measured and paid for as temporary crash cushion module.

If the Engineer orders a lateral move of sand filled temporary crash cushions and the repositioning is not shown on the plans, moving the sand filled temporary crash cushion will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications and such temporary crash cushion modules will not be counted for payment in the new position.

The contract unit price paid for temporary crash cushion module shall include full compensation for furnishing all labor, materials (including sand, pallets or frames and marker panels), tools, equipment and incidentals, and for doing all work involved in furnishing, installing, maintaining, moving and resetting during a work period for access to the work, and removing from the site of the work when no longer required (including those damaged by public traffic) the sand filled temporary crash cushion modules, complete in place, as shown on the plans, as specified in these special provisions and as directed by the Engineer.

10-1.26 EXAMINATION OF EXISTING NON-HIGHWAY FACILITIES.

After the contract has been awarded and before commencement of work, authorized representatives of the Contractor and the State will make a thorough joint examination of all existing buildings, roads, parking lots, and other improvements in the vicinity of the work which might be damaged by operations of the Contractor. The scope of the examination will include cracks in the structures, settlement, leakage, failed pavement and the like.

The Contractor shall be responsible for contacting Department of Transportation maintenance forces to arrange for access for the purpose of conducting examinations of existing facilities including crack monitoring.

Cracks in the existing facilities shall be monitored with the use of an approved calibrated crack monitoring device at locations designated by the Engineer

Full compensation for the examination of existing facilities and monitoring existing cracks, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

The Contractor shall arrange through the Engineer for a survey of the existing facilities in the work area. The Contractor shall contact the County of Contra Costa at (510) 646-1607 to schedule the joint inspection.

10-1.27 MOVEABLE CONCRETE BARRIER

Where shown on the plans, temporary concrete barrier shall consist of Moveable Concrete Barrier (MCB) placed and shifted by a barrier transfer and transport machine as specified in these special provisions.

Attention is directed to the sections, "Public Safety" and "Maintaining Traffic" of these special provisions.

Where MCB is used as barrier along a lane closure, the operations of moving the MCB into place, and shifting MCB to it’s planned storage location, shall be performed only during those hours when lane closures are allowed for the lanes involved. The transfer and transport vehicle shall not encroach into any lane open to public traffic during barrier shifting operations. Where operation of the barrier requires that the transfer and transport machine be operated in an adjacent traffic lane, said adjacent lane shall be closed during operations of placement and removal of barrier by the transfer and transport machine. The Contractor shall conduct his work so all operations of the transfer and transport machine, including closure of any adjacent lanes, are performed during the hours when lane closures are allowed for the lanes involved.

When moving the MCB, the approach end shall be offset a minimum of 15 feet from the edge of the traffic lane open to public traffic. The MCB shall be installed on a skew toward the edge of the traffic lane of not more than one foot transversely to 10 feet longitudinally with respect to the edge of the traffic lane. If the 15-foot minimum offset cannot be achieved, the approach end of the MCB

shall be protected by an array of temporary crash cushion modules or truck-mounted crash cushion (TMCC) or other protective measures as approved by the Engineer.

Temporary crash cushion modules shall conform to the provisions in "Temporary Crash Cushion Module" elsewhere in these special provisions.

Truck-mounted crash cushions (TMCC) shall conform to the provisions in "Traffic Control System for Lane Closure" elsewhere in these special provisions.

The MCB shall consist of reinforced precast concrete sections. The barrier section shall be 32" high, 24" wide at the base, and 37" long; the nominal length of the barrier pin to pin shall be 39.7" long. The top of the barrier shall be "T" shaped to permit it to be picked up by the transfer equipment. The MCB shall have a minimum weight of 425 pounds per foot of length. The basic shape of the barrier shall be the "New Jersey Shape" modified at the top with the "Tee-Head."

There shall be four (4) 7/8" threaded bolts extending the length of each section that will accommodate four (4) steel hinges - two (2) on each end - set in recesses formed in the barrier. The sections are connected by a 1-1/8" hinge pin that fits through the barrier hinges forming a continuous wall the desired length. All steel hardware shall be "black," (not galvanized or painted), unless otherwise specified. The barrier section shape and hinge pin design will permit the connected sections to be picked up off the road bed and rotated a minimum of 18 degrees about the horizontal axis so that they can be transferred across the roadway by transfer vehicle.

A transfer vehicle must be able to pick up and move continuous lengths of the MCB a minimum of 4 feet to a maximum of 18 feet, across the roadway. The equipment used to move the MCB shall not extend into active traffic during the transfers of barrier.

Barriers will be manufactured by either the wetcast or drycast methods. Minimum concrete strength shall be 4,000 psi. All surface voids or rock pockets shall be repaired. Surface "bugholes" caused by trapped airbubbles shall be permitted. Air entrainment shall be as specified by the ordering agency, +/- 1-1/2%.

Materials shall conform to the following specifications, or equal:

Reinforcing bars	Grade 40 or 60
Steel Hinges	ASTM A36
Through Rod	ASTM A36
Nuts	IFI 7/8 UNC STD HEX NUT
Washers	IFI 7/8 MEDIUM DUTY SPRING LOCK WASHERS
Hinge Pin	AISI 4140 or 4142

The MCB and the transfer and transport vehicle shall be as manufactured by Barrier Systems, Inc., 1100 East William Street, Suite 206, Carson City, Nevada 89701, telephone (702) 885-2500, or equal.

Arrangements have been made with the manufacturer of the MCB, to ensure that Contractor can lease or rent the Moveable Concrete Barrier and transfer transport vehicle from the above named source.

The price quoted by the manufacturer for the above Moveable Concrete Barrier will be $54.00 per linear foot based upon a two (2) year lease, F.O.B. a location to be determined at a later date, not to exceed 75 miles from the site of the project.

The price quoted by the manufacturer for the above transfer and transport machine will be $200,000.00 per unit based on two required units and upon a two (2) year lease, F.O.B. 180 River Road, Rio Vista, California 94571.

The above prices are exclusive of federal, state, and local taxes and will be firm for all orders placed on or before November 1, 1997, provided delivery is accepted within 120 days after the order is placed. All bidders should obtain a complete quote from Barrier Systems Inc.

The Contractor shall provide manufacturer certified trained operators for the transfer and transport machine, and said machine shall be maintained including fueling and lubrication by the Contractor. Damaged units of the Moveable Concrete Barrier shall be replaced by the Contractor. Transfer and transport machine that is damaged or not in good working order shall be replaced by the Contractor at the Contractor's expense. If the damage to the MCB or transfer and transport machine was caused by public traffic, as determined by the Engineer, the State will bear the cost of repair or replacement of the machine or MCB units involved.

Full compensation for conforming to the requirements in this section including furnishing and installing TMCC and temporary crash cushion modules, shall be considered as included in the contract price paid per linear foot for moveable concrete barrier and no additional compensation will be allowed therefor.

Moveable concrete barrier will be measured and paid for by the linear foot as designated in the Engineer's Estimate.

The contract price paid per linear foot for moveable concrete barrier shall include full compensation for furnishing all labor, materials, tools, equipment, two (2) transfer vehicles, and incidentals for doing all the work involved in unloading, setting up, placing, removing, storing, maintaining, moving to new locations, replacing and disposing of components of moveable concrete barrier, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Barrier markers for MCB shall be furnished by the Contractor. Barrier markers shall be mounted only on the top of the MCB and space as shown on the plans. Barrier markers shall be, as approved by the Engineer, one of the non-impactable type concrete barrier markers listed in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions. Adhesive for mounting barrier markers shall be per manufacturers recommendations and as approved by the Engineer.

If the MCB is placed on a skew, the marker shall be installed at the end of the skew nearest the traveled way. Type P marker panels shall conform to the provisions in

Section 82, "Markers and Delineators," except that the Contractor shall furnish said marker panels.

Full compensation for barrier markers, adhesive, and Type P marker panels shall be considered as included in the contract price paid per linear foot for moveable concrete barrier and no separate payment will made therefor.

10-1.28 EXISTING HIGHWAY FACILITIES

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

Except as otherwise provided for damaged materials in Section 15-2.04, "Salvage," of the Standard Specifications, the materials to be salvaged shall remain the property of the State, and shall be cleaned, packaged, bundled, tagged, and hauled to the District recycle center at the San Francisco -Oakland Bay Bridge warehouse supply area adjacent to the San Francisco-Oakland Bay Bridge Toll Plaza and stockpiled.

The Contractor shall notify the Engineer and the District Recycle Coordinator, telephone (510)286-6111 a minimum of 48 hours prior to hauling salvaged material to the Recycle Center.

The recycle center is open from 8:00 AM to Noon, and from 1:00 PM to 2:30 PM Mondays through Fridays except legal holidays.

EXISTING CONSTRUCTION/MAINTENANCE TRAVELERS.--The existing original construction/maintenance travelers located in each span of the "A4E" Mainspans are unsafe and are no longer used by the State for any purpose. They may also interfere with the retrofit work shown on the plans. At the option of the Contractor, the existing construction/maintenance travelers may be left in place, removed or they may be refurbished and repaired for use by the Contractor. If the Contractor elects to remove, or to refurbish and repair the travelers for use during the retrofit work they shall become the Contractor's property and shall be removed upon completion of the work unless directed otherwise by the Engineer.

Plans of the existing bridges may be requested by fax from the Office of Structure Maintenance and Investigations, 1801 30th Street, Sacramento, CA, Fax (916) 227-8357.

Plans of existing bridges available to the Contractor are reproductions of the original contract plans with significant changes noted and working drawings and do not necessarily show normal construction tolerances and variances. Where dimensions of new construction required by this contract are dependent on the dimensions of existing bridges, the Contractor shall verify the controlling field dimensions and shall be responsible for adjusting dimensions of the work to fit existing conditions.

Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety shall conform to the Construction Safety Orders Title 8, of the California Code of Regulations including Section 5158, "Other Confined Space Operations."

The existing paint systemsconsist of red lead and phenolic aluminum paints containing concentrations of metals such as lead, chromium and zinc. Any work that disturbs the existing paint system will expose workers to health hazards and will (1) produce debris containing heavy metal in amounts that exceed the thresholds established in Titles 8 and 22 of the California Code of Regulations or (2) produce toxic fumes when heated. All debris produced when the existing paint system is disturbed shall be contained.

DEBRIS CONTAINMENT AND COLLECTION PROGRAM.-- Prior to starting work, the Contractor shall submit to the Engineer a debris containment and collection program for debris produced when the existing paint system is disturbed, such as water blast with recirculated and filtered water for removing lead based paint, in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. If a water blast method is used, the use of flash rust inhibitors will not be permitted. The program shall identify materials, equipment and methods to be used when the existing paint system is disturbed and shall include working drawings of any containment system, loads applied to the bridge by any containment structure, and provisions for ventilation and air movement for visibility and worker safety.

The control and disposal of water and residue shall be described within the storm water pollution plan (SWPPP) as specified elsewhere in these special provisions. The SWPPP shall at a minimum, depict and describe the procedural and structural methods of detaining, collecting, and disposing the water and residue associated with the coring operations. Sufficient reduncy, acceptable to the Engineer, shall be incorporated into the procedural and structural methods such that the water and residue are not conveyed into or become present in drainage systems or the Carquinez Strait. In addition, the SWPPP shall provide a description of the inspection and monitoring procedures related to the control of water and residue.

If the measures being taken by the Contractor are inadequate to provide for the containment and collection of debris produced when the existing paint system is disturbed, the Engineer will direct the Contractor to revise the operations and the debris containment and collection program. The directions will be in writing and will specify the items of work for which the Contractor's debris containment and collection program are inadequate. No further work shall be performed on the items until the debris containment and collection programs are adequate and, if required, a revised program has been approved for

the containment and collection of debris produced when the existing paint system is disturbed.

The Engineer will notify the Contractor of the approval or rejection of any submitted or revised debris containment and collection program within 2 weeks of submittal of the Contractor's program or revised program.

The State will not be liable to the Contractor for failure to approve all or any portion of an originally submitted or revised debris containment and collection program, nor for any delays to the work due to the Contractor's failure to submit acceptable programs.

SAFETY AND HEALTH PROVISIONS.--Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety shall conform to the Construction Safety Orders Title 8, of the California Code of Regulations including Section 1532.1, "Lead."

The Contractor shall furnish to the Engineer a written Code of Safe Practices, and have an Injury and Illness Prevention Program, and a Hazard Communication Program in accordance with the provisions of Construction Safety Orders 1509 and 1510.

Prior to starting work that disturbs the existing paint system and at such times when revisions to the program are required by Section 1532.1, "Lead," the Contractor shall submit the compliance programs required in subsection (e)(2), "Compliance Program," of Section 1532.1, "Lead," of the Construction Safety Orders to the Engineer in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The compliance programs shall include the data specified in subsections (e)(2)(B) and (e)(2)(C) of Section 1532.1, "Lead." Approval of the compliance programs by the Engineer will not be required. The compliance programs shall be reviewed and signed by a Certified Industrial Hygienist (CIH) who is certified in comprehensive practice by the American Board of Industrial Hygiene (ABIH). The Industrial Hygienist or the duly designated competent person shall not be employed or compensated by any subcontractor, or by any person or entities hired, paid or associated with any subcontractor, except the Contractor, or others that provide service or materials to the project. Copies of all air monitoring or jobsite inspection reports made by or under the direction of the CIH in accordance with Section 1532.1, "Lead," shall be furnished to the Engineer within 10 days after date of monitoring or inspection.

DEBRIS HANDLING.--Temporary storage on the ground of the debris produced when the existing paint system is disturbed will not be permitted. Debris accumulated inside the containment system shall be removed before the end of each work shift. Debris shall be stored in approved leak proof containers and shall be handled in such a manner that no spillage will occur.

Disposal of debris produced when the existing paint system is disturbed shall be performed in accordance with all applicable Federal, State and Local hazardous waste laws. Laws that govern this work include:

1. Health and Safety Code, Division 20, Chapter 6.5 (California Hazardous Waste Control Act).
2. Title 22; California Code of Regulations, Chapter 30 (Minimum Standard for Management of Hazardous and Extremely Hazardous Materials).
3. Title 8, California Code of Regulations.

Except as otherwise provided below, debris produced when the existing paint system is disturbed shall be disposed of by the Contractor at an approved Class 1 disposal facility in accordance with the requirements of the disposal facility operator. The debris shall be hauled by a transporter currently registered with the California Department of Toxic Substances Control using correct manifesting procedures and vehicles displaying current certification of compliance. The Contractor shall make all arrangements with the operator of the disposal facility and perform any testing of the debris required by the operator.

At the option of the Contractor, the debris produced when the existing paint system is disturbed shall be disposed of by the Contractor at a facility equipped to recycle the debris, subject to the following requirements:

Copper slag abrasive blended by the supplier with a calcium silicate compound shall be used for blast cleaning.

The debris produced when the existing paint system is disturbed shall be tested by the Contractor to confirm that the solubility of the heavy metals is below regulatory limits and that the debris may be transported to the recycling facility as a non-hazardous waste.

The Contractor shall make all arrangements with the operator of the recycling facility and perform any testing of the debris produced when the existing paint system is disturbed that is required by the operator.

WORK AREA MONITORING--The Contractor shall perform work area monitoring of the ambient air and water in and around the work area at the bridge site to verify the effectiveness of the containment system. The work area monitoring shall consist of collecting, analyzing and reporting of air and water test results, and recommending any required corrective action when specified exposure levels are exceeded. The work area monitoring shall be carried out under the direction of a CIH. The Industrial Hygienist or the duly designated competent person shall not be employed or compensated by any subcontractor, or by any person or entities hired, paid or associated with any subcontractor, except the Contractor, or others that provide service or materials to the project. The samples shall be collected at locations designated by the Engineer. The locations for work area monitoring shall be as follows:

LOCATION A
CARQUINEZ BRIDGE ON RAMP "D" LINE
(Bridge No. 23-15 R)
Work area monitoring on the “D” Line

LOCATION B
CARQUINEZ BRIDGE APPROACH SPANS "A4E" LINE
(Bridge No. 23-15 R)
Work area monitoring on the “A4E” Line Approach Spans

LOCATION C
CARQUINEZ BRIDGE MAIN SPANS "A4E"
(Bridge No. 23-15 R)
Work area monitoring on the “A4E” Line Main Spans

Air samples shall be collected and analyzed in accordance with National Institute for Occupational Safety and Health (NIOSH) methods. Lead air samples shall be collected and analyzed in accordance with NIOSH Method 7082, with a limit of detection of at least 0.5 $\mu g/m^3$. Air samples for other metals shall be collected and analyzed in accordance with NIOSH Method 7300, with a limit of detection of at least one percent of the appropriate Permissible Exposure Limits (PELs) of California/Occupational Safety and Health Administration (Cal/OSHA). Alternative methods of sample collection and analysis, with equivalent limits of detection, may be used at the option of the Contractor.

The airborne metals exposure, outside either the containment system or work areas, shall not exceed the lower of either: (1) 10 percent of the Action Level specified for lead by Section 1532.1, "Lead," or (2) 10 percent of the appropriate PELs specified for other metals by Cal/OSHA.

The air samples shall be collected every day for the first week and at least once per week during progress of work that disturbs the existing paint system. All air samples shall be analyzed within 48 hours at a facility accredited by the Environmental Lead Laboratory Accreditation Program of the American Industrial Hygiene Association (AIHA). When corrective action is recommended by the CIH, additional samples may be required by the Engineer to be taken, at the Contractor's expense.

Ten water samples shall be collected prior to start of work, and thirty water samples shall be collected at various times during the contract, as determined by the Engineer. Water samples shall be analyzed for turbidity, total suspended solids and total heavy metals in accordance with Methods 180.1, 160.2, and the 200 series respectively in "Methods of Chemical Analysis of Water and Wastes" published by the United States Environmental Protection Agency.

There shall be no increase in the concentrations of heavy metal on the area affected when the existing paint system is disturbed. Any increase in the concentrations of heavy metal, after completion of work that disturbs the existing paint system, shall be removed at the Contractor's expense.

Air and water sample laboratory analysis results, including results of additional samples taken after corrective action as recommended by the CIH, shall be submitted to the Engineer. The results shall be submitted both verbally within 48 hours after sampling and in writing with a copy to the Contractor, within 5 days after sampling. Sample analysis reports shall be prepared by the CIH as follows:

For both air and water sample laboratory analysis results, the date and location of sample collection, sample number, contract number, bridge number, full name of the structure as shown on the contract plans, and District-County-Route-Post mile will be required.

For air sample laboratory analysis results, the following will be required:

1. Start time, end time and duration of sample collection.
2. Start time and end times of surface preparation operations on the day of sample collection.
3. Concentrations of PM-10 expressed as micrograms PM-10 per standard cubic meter of air.
4. Concentrations of heavy metals expressed as micrograms per standard cubic meter of air.
5. List of emission control measures in place when air samples were taken.
6. Air sample results shall be compared to the appropriate PELs.
7. Chain of custody forms.
8. Corrective action recommended by the CIH to ensure airborne metals exposure, outside either the containment system or work areas, is within specified limits.

For water sample laboratory analysis results, the concentrations of heavy metal expressed as parts per billion, the concentrations of turbidity expressed as nephelometric turbidity units and the concentrations of total suspended solids expressed as milligrams per liter will be required.

CONTAINMENT SYSTEM.--The containment system shall consist of, at the option of the Contractor, (1) a ventilated containment structure, or (2) vacuum shrouded surface preparation equipment and drapes, tarps or other materials, or (3) equivalent containment system. The containment system shall contain all water, resulting debris, and visible dust produced when the existing paint system is disturbed.

The containment system shall provide the clearances specified under "Maintaining Traffic" of these special provisions, except that a vertical clearance of 15 feet and a horizontal clearance of 32 feet shall be provided for the passage of public traffic below the bridge and a vertical clearance of 15 1/2 feet and a horizontal clearance of 52 feet shall be provided for the passage of public traffic on the “A4E” main spans.

The Contractor's containment system may extend below the bridge superstructure on the "A4E" mainspan. Temporary vertical clearance shall be maintained in accordance with the requirements of the Coast Guard Preconstruction Checklist.

The containment system shall provide minimum clearances as required under "Relations with Railroad Company" of these special provisions for the passage of railroad traffic.

The ventilated containment structure shall conform to the provisions for falsework in Section 51-1.06, "Falsework," of the Standard Specifications.

The minimum total design load of the ventilated containment structure shall consist of the sum of the dead and live vertical loads and horizontal wind loading. Dead load shall consist of the actual weight of the ventilated containment structure. Live loads shall consist of a uniform load of not less than 45 pounds per square foot, which includes 20 pounds per square foot of sand load, applied over the area supported, and in addition, a moving 1000 pound concentrated load shall be applied to produce maximum stress in the main supporting elements. The ventilated containment structure shall be designed for a minimum of a 60 mph wind force. Wind forces shall be determined in accordance with Section 3.15 of the Bridge Design Specifications. Attention is also directed to "Equipment Loading on Bridges" of these special provisions.

The ventilated containment structure may be supported with either rigid or flexible supports. The rigid or flexible containment materials on the containment structure shall retain air borne particles but may allow air flow through the containment materials. Flexible materials shall be supported and fastened to prevent escape of abrasive and blast materials due to whipping from traffic or wind and to maintain the clearances.

All mating joints between the ventilated containment structure and the bridge shall be sealed. Sealing may be by overlapping of seams when using flexible materials or by using tape, caulking, or other sealing measures.

Multiple flap overlapping door tarps shall be used at entry ways to the ventilated containment structure to prevent dust or debris from escaping.

Baffles, louvers, flapper seals or ducts shall be used at make-up air entry points to the ventilated containment structure to prevent escape of abrasives and resulting surface preparation debris.

The ventilated containment structure shall be properly maintained while work is in progress and shall not be changed from the approved working drawings without prior approval of the Engineer.

The ventilation system in the ventilated containment structure shall be of the forced input air flow type with fans or blowers.

Negative air pressure shall be employed within the ventilated containment structure and will be verified by visual methods by observing the concave nature of the containment materials while taking into account wind effects, or by using smoke or other visible means to observe air flow. The input air flow shall be properly balanced with the exhaust capacity throughout the range of operations.

The exhaust air flow of the ventilation system in the ventilated containment structure shall be forced into dust collectors (wet or dry) or bag houses.

If at any time during the execution of work, the containment and ventilation system fails to contain all abrasives and resulting surface preparation debris, the Contractor shall immediately suspend all operations except those intended to minimize adverse impact to the environment. The Engineer may also order either or both of the following: Other similar work shall also be suspended and written program shall be revised, or portions thereof, to correct any defects or deficiencies. Operations shall not resume until modifications to the operation or written program have been made to correct the cause of failure.

PROTECTIVE WORK CLOTHING AND HYGIENE FACILITIES.--Wherever there is exposure or possible exposure to heavy metals or silica dust at the bridge site, the Contractor shall, for not more than 3 State personnel: (1) furnish, clean and replace protective work clothing and (2) provide access to hygiene facilities. The furnishing, cleaning and replacement of protective work clothing, and hygiene facilities shall conform to the provisions of subsections (g), "Protective work clothing and equipment," and (i), "Hygiene facilities and practices," of Section 1532.1, "Lead," of the Construction Safety Orders.

The protective work clothing and access to hygiene facilities shall be provided during exposure or possible exposure to heavy metals or silica dust at the bridge site and application of the undercoats of paint.

Protective work clothing and hygiene facilities shall be inspected and approved by the Engineer before being used by State personnel.

The protective work clothing shall remain the property of the Contractor at the completion of the contract.

PAYMENT.--Work area monitoring will be paid for on the basis of a lump sum price for the various locations shown in the Engineer's Estimate.

The contract lump sum price paid for work area monitoring shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in collecting and analyzing of samples of ambient air and water for turbidity, total suspended solids and heavy metals, complete in place, including reporting the test results, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for the containment system, protective work clothing and access to hygiene facilities for State personnel; and handling of debris produced when the existing paint system is disturbed, including testing, hauling, treatment, disposal fees and local taxes, shall be considered as included in the contract price paid for the item of work requiring the disposal of the debris produced

when the existing paint system is disturbed and no additional compensation will be allowed therefor.

Existing footing concrete which is below ground and outside of the footing limits shown on the contract plans or original contract plans shall be removed as directed by the Engineer and such work will be paid for as extra work as provided in Section 4-l.03D of the Standard Specifications.

10-1.28A SALVAGE AND REINSTALL STRUCTURAL ELEMENTS

Salvage and reinstall structural elements shall consist of removing, storing and reinstalling or replacing miscellaneous facilities associated with the bridge retrofit in accordance with the details shown on the plans and as specified these special provisions. Salvaging existing facilities shall conform to the requirements of Section 15-2.04, "Salvage," of the Standard Specifications. Reinstalling existing facilities shall conform to the requirements of Section 15-2.05, "Reconstruction" of the Standard Specifications. The locations for salvage and reinstall structural elements shall be defined as follows:

LOCATION B
CARQUINEZ BRIDGE ON RAMP "A4E" LINE APPROACH SPANS
(Bridge No. 23-15 R)
Salvaging and reinstalling the walkway and pipe railing on Bent A11E of the "A4E" Line Approach Span

LOCATION C
CARQUINEZ BRIDGE APPROACH SPANS "A4E" LINE MAIN SPANS
(Bridge No. 23-15 R)
Salvaging and reinstalling structural elements on the "A4E" Line Main Spans including: the wooden stairs, finger joints, handrail and curb supports at Abutment 1

As-built plans for the wooden stair at Abutment 1 of the "A4E" Main Span are shown on the sheets titled: "East Carquinez Bridge, Maintenance Safety Improvements--Walkway and Stairway at Abutment No. 1" sheet and "Stairway-Abutment No. 1" sheet. If the Contractor chooses to dispose of the existing wooden stairs and mounting bracket, and replace them with newly built stairs and bracket, the new items shall be constructed in accordance with the as-built drawings.

Finger joint bars removed shall be located and numbered upon removal and shall reinstalled in the same locations, and as directed by the Engineer.

Expansion anchor bolts and resin capsule anchors for reattaching the handrail posts and walkway support frames shall conform to the requirements of Section 75-1.03, "Miscellaneous Bridge Metal," of the Standard Specifications.

Touch up galvanizing shall be applied to salvaged and reinstalled structural elements where existing steel surfaces have been abraded or damaged, where any welding has been performed and as directed by the Engineer. Galvanizing touchup and repair shall conform to the requirements of Section 75-1.05, "Galvanizing," of the Standard Specifications.

The contract lump sum price paid for salvage and reinstall structural elements for the various locations shown in the Engineer's estimate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in salvage and reinstall structural elements, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.28B RESET BENCHMARKS

This work shall consist of installing and surveying new benchmarks as shown on the plans or as directed by the Engineer and as specified in these special provisions.

Where existing benchmarks are to be left in place, and are not shown to be covered by new retrofit concrete, they shall be protected from damage.

Existing benchmarks to be reset shall be reset using new marker disks at the locations shown on the plans. Marker disks will be State-furnished. Markers shall be placed into the nonshrink grout before the grout has acquired its initial set and shall be firmly embedded into the grout.

Non shrink grout used to set the disks into cored holes shall conform to "Non Shrink Grout" of these special provisions.

Prior to covering the existing benchmarks, and after installing the new benchmarks, both the new and the old benchmarks shall be surveyed by a Land Surveyor, who is registered in the State of California. Survey notes with the locations and elevations of the new benchmarks shall be submitted to the State.

Attention is directed to "Order of Work" of these special provisions for requirements concerning installation of new benchmarks.

Quantities of reset benchmark will be determined from actual count of the new benchmarks installed in the completed work.

The contract unit price paid for reset benchmark shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing and surveying benchmarks, complete in place, including protecting existing benchmarks and surveying benchmarks to be replaced and newly installed benchmarks, as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

10-1.28C ABANDON CULVERTS

Existing culverts , where shown on the plans to be abandoned, shall be abandoned in place or at the option of the Contractor, the culverts shall be removed and disposed of. All resulting openings into existing structures, that are to remain in place, shall be plugged with commercial quality concrete containing not less than 470 pounds of cement per cubic yard.

Abandoning culverts in place shall conform to the following:

> Culverts, 24 inches in diameter and larger, to be abandoned, shall be backfilled with sand by any method, acceptable to the Engineer, which completely fills the pipe. Sand backfill material shall be clean, free draining, and free from roots and other deleterious substances.
>
> The ends of culverts shall be securely closed by a 0.5-foot thick tight fitting plug or wall of commercial quality concrete.

Culverts shall not be abandoned until their use is no longer required. The Contractor shall notify the Engineer in advance of any intended culvert abandonment.

If the Contractor elects to remove and dispose of any culvert which is specified to be abandoned, as provided herein, any sand backfill specified for such pipe will be measured and paid for in the same manner as if the culvert has been abandoned in place.

Sand backfill will be measured by the cubic yard determined from the dimensions of the culverts to be abandoned.

The contract price paid per cubic yard for sand backfill shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in backfilling pipes with sand, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for plugs, structure excavation, and backfill, shall be considered as included in the contract unit price paid for abandon culvert , and no additional compensation will be allowed therefor.

10-1.28D REMOVE GUARD RAILING AND DOUBLE METAL BEAM BARRIER

Existing guard railing and double metal beam barrier, where shown on the plans to be removed, shall be removed and disposed of.

10-1.28E REMOVE PAVEMENT MARKERS

Existing pavement markers, when no longer required for traffic lane delineation as directed by the Engineer, shall be removed and disposed of.

10-1.28F REMOVE PAINTED AND THERMOPLASTIC TRAFFIC STRIPES AND PAINTED PAVEMENT MARKINGS

Painted and thermoplastic traffic stripes and painted pavement markings–to be removed will be designated by the Engineer.

Where blast cleaning is used for the removal of painted traffic stripes and pavement markings or for removal of objectionable material, and such removal operation is being performed within 10 feet of a lane occupied by public traffic, the residue including dust shall be removed immediately after contact between the sand and the surface being treated. Such removal shall be by a vacuum attachment operating concurrently with the blast cleaning operation.

The control and disposal of residue shall be described within the storm water pollution plan (SWPPP) as specified elsewhere in these special provisions. The SWPPP shall at a minimum, depict and describe the procedural and structural methods of detaining, collecting, and disposing the residue associated with the blast cleaning operations. Sufficient redundancy, acceptable to the Engineer, shall be incorporated into the procedural and structural methods such that the residues are not conveyed into or become present in drainage systems, San Pablo Bay, or Carquinez Strait.

Nothing in these special provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.09, "Public Safety," of the Standard Specifications.

10-1.28G REMOVE DRAINAGE FACILITIES

Existing culverts and inlets where shown on the plans to be removed, shall be completely removed and disposed of.

The second paragraph in Section 15-2.07, "Payment," of the Standard Specifications is amended to read:

> The above prices and payments shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in completing the operations as shown on the plans, except excavation and backfill, and as specified in these specifications and the special provisions, and as directed by the Engineer.

The third paragraph in Section 15-2.07, "Payment," of the Standard Specifications is amended to read:

> Excavation required to remove drainage facilities will be paid for as drainage excavation (hazardous). Backfill will be paid for as drainage backfill (Class 3 AB) in paved areas and as

drainage backfill (imported borrow) in unpaved areas, respectively.

10-1.28H REMOVE ROADSIDE SIGNS

Existing roadside signs, at locations shown on the plans to be removed, shall be removed and disposed of.

Sign panels, as shown on the plans, shall be salvaged.

Existing roadside signs shall not be removed until replacement signs have been installed or until the existing signs are no longer required for the direction of public traffic, unless otherwise directed by the Engineer.

Full compensation for salvaging sign panels shall be considered as included in the contract unit price paid for remove roadside sign and no separate payment will be made therefor.

10-1.28I RECONSTRUCT CHAIN LINK FENCE

Existing chain link fence shall be removed and reconstructed as shown on the plans.

Fence removed in excess of that required for reconstructing chain link fence shall be disposed of. Full compensation for removing and disposing of excess fence shall be considered as included in the contract price paid per linear foot for reconstruct chain link fence and no separate payment will be made therefor.

10-1.28J REMOVE CHAIN LINK FENCE

Existing chain link fence shall be removed as shown on the plans.

10-1.28K RESET PARKING BUMPER

Existing parking bumper, shall be removed and reset as shown on the plans.

The contract unit price paid for reset parking bumper shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in reset parking bumper, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.28L RELOCATE ROADSIDE SIGNS

Existing roadside signs shall be removed and relocated at new locations shown on the plans.

Each roadside sign shall be installed at the new location on the same day said sign is removed from its original location.

Two holes shall be drilled in each existing post as required to provide a breakaway feature as shown on the plans.

10-1.28M OBLITERATE SURFACING

Existing surfacing, when no longer required for the passage of public traffic, shall be obliterated at the locations shown on the plans.

Surfacing shall not be obliterated by the earth cover method.

Obliteration shall consist of rooting, plowing, pulverizing or scarifying the existing surfacing as specified in Section 15-2.02A, "Obliterating Roads and Detours," of the Standard Specifications.

10-1.28N PLANE ASPHALT CONCRETE PAVEMENT

Existing asphalt concrete pavement shall be planed at the locations and to the dimensions shown on the plans.

Except as provided herein, planing asphalt concrete pavement shall be performed, at the option of the Contractor, either by the cold planing or heater planing method. The use of the heater planing method shall be subject to approval of the local Air Pollution Control Officer.

Cold planing machines shall be equipped with a cutter head not less than 30 inches in width and shall be operated so as not to produce fumes or smoke. The cold planing machine shall be capable of planing the pavement without requiring the use of a heating device to soften the pavement during or prior to the planing operation.

Heater planing machines shall have, in combination or separately, a means for heating and cutting the asphalt concrete surface and blading the displaced material into windrows in one continuous forward motion. Heat shall be applied uniformly to the area to be planed and shall be accurately controlled according to conditions and road surfacing being planed. The cutting width of the blade shall be not less than 3 feet.

Heater planing operations shall not be performed at any time where there is danger of igniting entrapped gases from sewers or gas mains, if an open flame is used in the heater. The heater planing method shall not be used in areas where the heat generated by the heater planing equipment may damage adjacent shrubs or the foliage on overhanging tree limbs.

The depth, width and shape of the cut shall be as indicated on the typical cross sections or as directed by the Engineer. The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform. Planing asphalt concrete pavement operations shall be performed without damage to the surfacing to remain in place.

Planed widths of pavement shall be continuous except for intersections at cross streets where the planing shall be carried around the corners and through the conform lines. Following planing

operations, a drop-off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic.

Where transverse joints are planed in the pavement at conform lines no drop-off shall remain between the existing pavement and the planed area when the pavement is opened to public traffic. If asphalt concrete has not been placed to the level of existing pavement before the pavement is to be opened to public traffic a temporary asphalt concrete taper shall be constructed. Asphalt concrete for temporary tapers shall be placed to the level of the existing pavement and tapered on a slope of 30:1 or flatter to the level of the planed area.

Asphalt concrete for temporary tapers shall be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers shall be completely removed, including the removal of all loose material from the underlying surface, before placing the permanent surfacing. Such removed material shall be disposed of outside the highway right of way in accordance with the provisions in Section 7-1.13 of the Standard Specifications.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be removed and disposed of outside the highway right of way in accordance with the provisions in Section 7-1.13 of the Standard Specifications. Removal operations of planed material shall be concurrent with planing operations and follow within 50 feet of the planer, unless otherwise directed by the Engineer.

The removal and disposal of planed material and residue shall be described within the storm water pollution plan (SWPPP) as specified elsewhere in these special provisions. The SWPPP shall at a minimum, depict and describe the procedural and structural methods of detaining, collecting, and disposing the planed material and residues associated with the planing of asphalt concrete. Sufficient redundancy, acceptable to the Engineer, shall be incorporated into the procedural and structural methods such that the planed material and residues are not conveyed into or become present in drainage systems, San Pablo Bay, or Carquinez Strait.

Plane asphalt concrete pavement will be measured by the square yard for the depth (maximum) designated in the Engineer's Estimate. The quantity to be paid for will be the actual area of surface planed for the depth (maximum) designated in the Engineer's Estimate, irrespective of the number of passes required to obtain the depth shown on the plans.

The contract price paid per square yard for plane asphalt concrete pavement for the depth (maximum) designated in the Engineer's Estimate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in planing asphalt concrete surfacing and disposing of planed material, including furnishing the asphalt concrete for and constructing, maintaining, removing, and disposing of temporary asphalt concrete tapers, as specified in these special provisions and as directed by the Engineer.

10-1.28O REMOVE RETAINING WALL (PORTION)

Remove retaining wall (portion) shall conform to the provisions in Section 15-3, "Removing Concrete," of the Standard Specifications and these special provisions.

The pay quantities of remove retaining wall (portion) to be removed will be measured by the cubic yard, measured before and during removal operations.

Concrete removed shall be disposed of in accordance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

The contract price paid per cubic yard for remove retaining wall (portion) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing retaining wall (portion) including removal of piles, footing and supports and backfilling with imported borrow as specified in the Standard Specifications and these special provisions and as directed by the Engineer.

10-1.28P BRIDGE REMOVAL

Removing portions of bridge shall conform to the requirements in Section 15-4, "Bridge Removal," of the Standard Specifications and these special provisions.

Attention is directed to section "Obstructions" in these special provisions for removal and reinstallation items not mentioned below.

Attention is directed to “Steel Structures” in these special provisions for removal of structural steel.

LOCATION A
CARQUINEZ BRIDGE ON RAMP "D" LINE
(Bridge No. 23-15 R)
Remove portions of footings, columns and restrainers as shown on the plans.

LOCATION B
CARQUINEZ BRIDGE APPROACH SPANS "A4E" LINE
(Bridge No. 23-15 R)
Remove portions of abutments, footings, columns and restrainers as shown on the plans.

LOCATION C
CARQUINEZ BRIDGE MAIN SPANS "A4E"
(Bridge No. 23-15 R)

Remove portions of abutment, wingwall, footings and backwalls, Pier 5 partial footing removal, and partial removals at Piers 2, 3 , and 5 and handrail removals, as shown on the plans.

Work under bridge removal also includes miscellaneous concrete chipping and grinding, concrete removal, lost form removal and temporary bracing.

Work under bridge removal shall also include temporary removal, storage and restoration and or rerouting of all miscellaneous existing facilities attached to bridge portions being removed including such items as electrical conduits, air and water lines.

Work under bridge removal shall also include temporary removal, storage and restoration of miscellaneous existing facilities attached to or conflicting with bridge portions being removed, or blocking other items of work. Not all miscellaneous facilities requiring temporary removal and reinstallation are shown on the plans. The Contractor shall demonstrate to the Engineer that restored facilities are in good working order.

Where existing bolts or bar reinforcing steel would protrude from the finished surface of the concrete in areas where the Contractor has performed bridge removal, the bolt or bar reinforcing shall be removed to a depth of 2 inches by 3 inch diameter coring and then flame cutting the bolt or bar reinforcing. Slag and carbon from flame cutting shall be cleaned from the hole by mechanical means. The resulting hole shall be patched with nonshrink grout in accordance with the requirements in "Nonshrink Grout" of the these special provisions except that curing by water ponding shall not be required.

All removed materials that are not to be salvaged or used in the reconstruction shall become the property of the Contractor and shall be disposed of outside the highway right of way in accordance with the provisions in Section 7-1.13 of the Standard Specifications.

The Contractor shall submit a complete bridge removal plan to the Engineer detailing procedures and sequence for removing concrete portions of the "A4E"