TRANSPORTATION AGENCY FOR MONTEREY COUNTY

NOTICE TO BIDDERS

and

SPECIAL PROVISIONS

FOR CONSTRUCTION OF THE FORT ORD REGIONAL TRAIL AND GREENWAY (FORTAG) CANYON DEL REY SEGMENT 1

IN VARIOUS CITIES IN MONTEREY COUNTY, CALIFORNIA

In District 05 on Route 218

NTB and Special Provisions dated Dec. 1, 2023	**Caltrans Standard Specifications dated 2022**
Project Plans dated Dec. 1, 2023	**Caltrans Standard Plans dated 2022**

TAMC Project No. 7300.01.CDR.01
Federal Aid Project No. ATPSB1L-6143(088)

APPROVED: Todd Muck

Todd Muck, Executive Director, TAMC

DATE: 12/11/2023

Transportation Agency for Monterey County (TAMC)
55-B Plaza Circle, Salinas, CA 93901, 831-775-0903

December 1, 2023

SPECIAL NOTICES

- The Bidder must submit its bid with a minimum price for plant establishment work. The plant establishment period is 90-days. See section 2-1.09.

FORTAG Canyon Del Rey Segment Project

Contract No. XXXX

DESIGN OVERSIGHT APPROVAL	REGISTRATION NO.	DATE
PRINTED NAME SIGNATURE Jeff Payne	C47708	4/28/23

Approved as to impact on State facilities and conformance with applicable State standards and practices as described in the A&E Consultant Services manual

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

STRUCTURES

NARCISO R. ZERMENO, SE
REGISTERED STRUCTURAL ENGINEER

ROADWAY

LINDSEY VAN PARYS, PE
REGISTERED CIVIL ENGINEER

LANDSCAPING

THOMAS HESSEL
REGISTERED LANDSCAPE ARCHITECT

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FORT ORD REGIONAL TRAIL AND GREENWAY
CANYON DEL REY SEGMENT
FEDERAL AID PROJECT No. ATPSB1L-6143(088)

NOTICE TO BIDDERS

Bids Submission Deadline: **Thursday, January 25, 2023, at 2:00 p.m.** At this time bids will be opened and read aloud at the offices of the Transportation Agency for Monterey County (TAMC) Conference Room at 55-B Plaza Circle, Salinas, California, 93901.

An electronic bidding process has been adopted for this solicitation. A link to the electronic bid system website is posted at https://www.tamcmonterey.org/bids-and-proposals. Bid Forms, Contract Documents and Addenda, if issued, will be available from the electronic bidding system. Paper bids will not be accepted. Electronic bids must be submitted through the electronic bidding system. The results of the bid opening will be posted on the electronic bidding system website.

The work, in general, consists of construction of a paved multi-use recreational trail through the City of Del Rey Oaks from Fremont Boulevard to Del Rey Woods Elementary in the City of Seaside, as shown on the project Plans, and as described in the Standard Specifications, Standard Plans, and these Special Provisions. The Engineer's Construction Cost Estimate for the project is $12,296,500. Bids are required for the entire work described herein.

A non-mandatory Pre-Bid Meeting is scheduled for **Tuesday, January 9, 2024, at 10:00 a.m**. at the Charlie Benson Memorial Hall, Del Rey Oaks City Hall, 650 Canyon Del Rey, Del Rey Oaks, CA 93940. This meeting will allow bidders to ask questions and provide an opportunity to review and inspect project conditions following the Pre-Bid meeting. Statements made at the Pre-Bid meeting and site walk shall not alter or modify the project documents in any way unless incorporated into an addendum.

Submit all bidder inquiries directly through the electronic bidding system. Bidder inquiries must be received by **Friday, January 12, 2024, by 2:00 p.m**. All responses to bidder inquiries and addenda, if any, will be available on the electronic bidding system. It is each bidder's responsibility to check the website for these documents.

At the time of the bid opening, the successful Bidder must be legally entitled to perform contracts requiring a Class "A" General Engineering Contractor's license or a combination of Specialty Class "C" licenses sufficient to cover all of the work to be performed by him. Any Bidder or contractor not so licensed shall be subject to all penalties imposed by law including, but not limited to, any appropriate disciplinary action by the Contractor's State Licensing Board.

There are Federal Funds on this project. In compliance with the federal trainee the number of trainees or apprentices for this contract is 14.

The DBE/UDBE/DVBE Contract goal is ten (10) percent.

A Bid Bond, issued by an admitted corporate surety company, in an amount equal to at least ten percent (10%) of the total bid amount must accompany the bid.

The successful bidder shall furnish a payment bond and a performance bond each in the amount of one hundred percent (100%) of the Contract.

No bidder may withdraw its bid for a period of ninety (90) calendar days after the date set for the opening of bids.

This project is partially or completely federally funded. Federal and/or State prevailing wage rates, whichever are higher, shall apply. Contractor and all subcontractors shall be responsible for determining which prevailing wage rate applies to the corresponding labor classification to be used in the execution of this contract and shall pay accordingly. Contractor and all subcontractors shall, if applicable, comply with the provisions of the Davis-Bacon Act and all amendments thereto (see also Division I General Provisions, Section 7 Legal Relations and Responsibility to the Public elsewhere in these Special Provisions).

The Federal minimum wages shall be based on the wages that the United States Secretary of Labor determines to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State of California.

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 State General Prevailing Wage Rates for this project, available at the TAMC offices located at 55 B Plaza Circle, Salinas, CA 93901 (831-775-0903) and available from the California Department of Industrial Relations' Internet website at http://www.dir.ca.gov/dlsr/PWD/Northern.html.

Prevailing wage rates are required to be posted at the jobsite.

In accordance with the provisions of Sections 1725.5, 1771.1, 1771.3, and 1771.4 of the Labor Code, this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal (subject to the requirements of Section 4104 of the Public Contract Code), or engage in the performance of any contract for public work, as defined by that chapter of the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5 of the Labor Code.

In accordance with the provisions of Section 1773.3 of the Labor Code, TAMC shall provide notice to the Department of Industrial Relations (DIR) of the award of any public works contract subject to the requirements of Chapter 1 of the Labor Code, within five days of the award. The notice shall be transmitted electronically in a format specified by the DIR (see https://www.dir.ca.gov/pwc100ext/) and shall include the name of the contractor, any subcontractor listed on the successful bid, the bid and contract award dates, the contract amount, the estimated start and completion dates, job site location, and any additional information the DIR specifies that aids in the administration and enforcement of this chapter.

If there is a difference between the Federal minimum wage rates predetermined by the Secretary of Labor and the State General prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. TAMC will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate, which most closely approximates the duties of the employees in question.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Public Contract Code Section 22300, the Contractor may substitute securities for any moneys withheld by TAMC to ensure performance under the Contract.

In addition to these provisions, all bidders must maintain compliance with Caltrans Local Assistance Procedures Manual Exhibit 12-G, found at the following link and incorporated in whole with this Notice to Bidders:

https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/lapm/c12/12g.pdf

TAMC reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding.

Todd Muck
Executive Director, Transportation Agency
For Monterey County (TAMC)

12/11/23
Date

COPY OF BID ITEM LIST

Base Bid

ITEM NO.	FINAL PAY ITEM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
1		999990	Mobilization (5%)	LS	1
2		070030	Lead Compliance Plan	LS	1
3		120200	Temporary Facilities	LS	1
4		120090	Construction Area Signs	LS	1
5		130100	Job Site Management	LS	1
6		130300	Prepare Storm Water Pollution Prevention Plan	LS	1
7		130330	Storm Water Annual Report	EA	2
8		130505	Move-In/Move-Out (Temporary Erosion Control)	EA	2
9		130530	Temporary Hydraulic Mulch (Bonded Fiber Matrix)	SQYD	1,790
10		130610	Temporary Check Dam	LF	37
11		130620	Temporary Inlet Protection	EA	16
12		130640	Temporary Fiber Roll	LF	5,596
13		130680	Temporary Silt Fence, High Visibility Orange	LF	2,212
14		130710	Temporary Construction Entrance (Type 2)	EA	2
15		130730	Street Sweeping	LS	1
16		130900	Temporary Concrete Washout	LS	1
17		160110	Temporary High Visibility Fencing (ESA)	LF	1,684
18		198051	Temporary Shoring	LS	1
19		141103	Remove Yellow Thermoplastic Traffic Stripe (Hazardous Waste)	LF	2,293
20		160120	Remove Tree	EA	33
21		151000	Remove and Salvage Existing Light Pole	EA	6
22		170105	Clearing and Grubbing	AC	3
23		190101	Roadway Excavation	CY	13,280
24		190102	Export Excavation	CY	2,070
25	F	192037	Structure Excavation (Retaining Wall)	CY	1,910
26	F	193013	Structure Backfill (Retaining Wall)	CY	1,180
27		210270	Rolled Erosion Control Product (Netting)	SQFT	42,907
28		210300	Hydromulch	SQFT	48,343
29		210430	Hydroseed	SQFT	48,343
30		210610	Compost (CY)	CY	295
31		210630	Incorporate Materials	SQFT	48,343
32		205035	Wood Mulch	CY	140
33		200111	Decorative Boulders	EA	80
34		202006	Soil Amendment	CY	130

ITEM NO.	FINAL PAY ITEM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
35		204011	Plant (Group K) (24" Box Tree)	EA	12
36		204011	Plant (Group K) (15 Gal. Tree)	EA	27
37		204035	Plant (Group A) (NO. 1)	EA	854
38		204036	Plant (Group B) (NO. 5)	EA	102
39		204099	Plant Establishment Work (90 days)	LS	1
40		841000	Polymer Cement Surface System Pavement Markings (Endurablend)	SF	1,110
41		205034	Decomposed Granite	SF	5,500
42		201000A	Arbor Structure (Poligon)	EA	1
43		206005	Edging (Metal)	LF	57
44		208649	Quick coupler valve	EA	17
45		208574	1.5" Gate Valve (Shut off valves)	EA	7
46		206562	1" Remote Control Valve	EA	7
47		206564	1.5" Remote Control Valve (Master Valve with Flow Sensor)	EA	2
48		206751	12 Station Irrigation Controller	EA	2
49		208220	1/2" Drip In-Line Tubing	SF	11,273
50		208301	Irrigation Controller Enclosure Cabinet	EA	2
51		200114	Rock blanket	SF	850
52		201000B	Furniture: Bollards	EA	2
53		201000C	Furniture: Camber Bench	EA	6
54		201000D	Furniture: Cordia Trash/Recycle	EA	8
55		201000E	Furniture: Bay City Bike Rack	EA	1
56		201000F	Furniture: MDF Hydration Station	EA	3
57		201000G	Furniture: Picnic Table	EA	1
58		201000H	Tennis Net Post	EA	4
59		208690	Irrigation Sleeve	LF	200
60		201000I	Del Rey Oaks Signage	LS	1
61		201000J	Butterfly Garden Signage	LS	1
62		201000K	Steel Raised Garden Planters	EA	6
63		208445	Tree Well Sprinkler Assembly	EA	45
64		208450	1" Drip Valve Assembly	EA	7
65		208598	Plastic Pipe (Schedule 40) (Supply Line)	LF	2,251
66		208594	Plastic Pipe (Schedule 40) (Lateral Line)	LF	2,461
67		201000L	Picket Fence	LF	120
68		720110	Small-Rock Slope Protection (3"-6" size rip rap cobble)	SQYD	7
69		260203	Aggregate Base (Class 2)	CY	1,956

ITEM NO.	FINAL PAY ITEM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
70		377501	Slurry Seal	SQFT	91,728
71		371000	Tennis Court Crack Seal and Resurfacing	LS	1
72		390132	Hot Mix Asphalt (Type A)	TON	1,542
73		394073	Place Hot Mix Asphalt Dike (Type A)	LF	54
74		398100	Remove Asphalt Concrete Dike	LF	138
75		701000	G3 Catch Basin	EA	4
76		701001	24" x 24" Concrete Drainage Inlet	EA	2
77		701002	18" x 18" Drainage Inlet	EA	1
78		701003	GOL (7') Catch Basin	EA	1
79		701004	G0L (10') Catch Basin	EA	3
80		701005	G0L (10') Catch Basin Mod	EA	1
81	F	700617	Drainage Inlet Markers	EA	11
82		701004	9" Area Drains	EA	13
83		707217	36" Precast Concrete Pipe Manhole	EA	0
84		707225	48" Precast Concrete Pipe Manhole 1'-5' DEPTH	EA	6
85		707225	48" Precast Concrete Pipe Manhole 5'-10' DEPTH	EA	5
86		640100	SMALL SD HDPE (6" AND LESS)	LF	680
87		640101	12" SD HDPE	LF	40
88		650307	12" SD RCP (CLIII)	LF	240
89		650309	24" SD CMP	LF	60
90		650310	15" SD RCP (CLIII)	LF	80
91		650311	18" SD RCP (CLIII)	LF	50
92		650316	24" SD RCP (CLIII)	LF	390
93		702614	Tee Energy Dissispator 24" (CMP)	EA	2
94		723095	Rock Slope Protection (CL 1, Light, Method B)	CY	13
95		723080	Rock Slope Protection (CL 2, Light, Method B)	CY	30
96		013509	8" Gravel Filter	CY	16
97		770400	Bioretention Pond	SQFT	749
98		770600	Tree Box Biofilter (6'x10')	EA	3
99		770700	Infiltration trench & 48" chamber	EA	1
100		770800	24" sidewalk underdrain Mod	EA	1
101		770900	Modify or Connect to existing SD System	EA	3
102		710114	Abandon Sewer Pipeline	LS	1
103		640200	14-inch DR 17 HDPE, (Includes Excavation, Bedding, Laying, & Backfill)	LF	200
104		702000	Install 48-inch Dia. Manhole (10'-11' Depth)	EA	2
105		703000	Install 48-inch Dia. Manhole (14’-19’ Depth)	EA	2

ITEM NO.	FINAL PAY ITEM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
106		704000	Modify Existing SS Manhole	EA	1
107		705000	Connect Existing Sewer to New Manhole and Base	EA	2
108		770200	Sewer Bypass	LS	1
109		770300	Pre/Post-Construction CCTV Inspection	LF	200
110	F	192003	Structure Excavation (Bridge)	CY	610
111	F	193003	Structure Backfill (Bridge)	CY	160
112		490782	Furnish Piling (Class 200)	LF	3,712
113		490783	Drive Pile (Class 200)	EA	64
114	F	510053	Structural Concrete, Bridge	CY	199
115	F	510054	Structural Concrete, Bridge (Polymer Fiber)	CY	64
116	F	510086	Structural Concrete, Approach Slab (Type N)	CY	60
117		512352	Furnish Precast Prestressed Concrete Slab (Type SII)	SF	2,380
118		512510	Erect Precast Prestressed Concrete Deck Unit	EA	15
119		519088	Joint Seal (MR = 1")	LF	117
120		519102	Joint Seal (TYPE AL)	LF	117
121	F	520102	Bar Reinforcing Steel (Bridge)	LB	50,000
122	F	750501	Miscellaneous Metal (Bridge)	LB	324
123		839607	Crash Cushion Alt (SCI-70 GM TL-2) and Concrete Foundation	EA	2
124	F	839738	Concrete Barrier (Type 85SW)	LF	65
125	F	839739	Concrete Barrier (Type 85)	LF	65
126	F	833094	Tubular Bicycle Railing	LF	65
127	F	192049	Structure Excavation (Solider Pile Wall)	CY	113
128	F	193029	Structure Backfill (Solider Pile Wall)	CY	31
129	F	193116	Concrete Backfill (Solider Pile Wall)	CY	148
130	F	193119	Lean Concrete Backfill	CY	41
131		490326	Steel Solider Pile (W 24 x 176)	LF	710
132		490406	36" Drilled Hole	LF	719
133	F	510060	Structural Concrete, Retaining Wall	CY	43
134	F	511055	Concrete Surface Texture	SF	1,336
135	F	520103	Bar Reinforcing Steel (Retaining Wall) (F)	LB	8,000
136	F	575004	Timber Lagging	MFBM	7
137		590120	Clean and Paint Steel Soldier Piling	LS	1
138	F	750502	Miscellaneous Metal (Retaining Wall)	LB	126
139	F	510060	Structural Concrete, Retaining & Seat Walls	CY	584

ITEM NO.	FINAL PAY ITEM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
140	F	511035	Retaining & Seat Wall Concrete Aesthetics	SQFT	2,437
141	F	520103	Bar Reinforcing Steel (Retaining & Seat Walls)	LB	87,542
142	F	520103	Bar Reinforcing Steel (Concrete Trail)	LB	19,741
143		710136	Remove Pipe	LF	146
144		710150	Remove Inlet	EA	4
145		710208	Adjust Frame and Cover to Grade	EA	12
146		710240	Adjust Existing Valves/Meters to Grade	EA	19
147		730070	Detectable Warning Surface	SF	849
148		730020	Minor Concrete (Curb)	CY	14
149		731504	Minor Concrete (Curb and Gutter)	CY	296
150		731514	Minor Concrete (Stamped Concrete)	CY	32
151		731515	Minor Concrete (Truck Apron)	CY	3
152		731516	Minor Concrete (Driveway)	CY	20
153		731519	Minor Concrete (Sloped Paving)	CY	47
154		731521	Minor Concrete (Stairs)	CY	7
155		731522	Minor Concrete (Sidewalk)	CY	80
156		731523	Minor Concrete (Trail)	CY	682
157		731624	Minor Concrete (Curb Ramp)	EA	32
158		731625	Minor Concrete (Retaining Curb 1)	LF	1,241
159		731626	Minor Concrete (Retaining Curb 2)	LF	422
160		731627	Minor Concrete (Retaining Curb 3)	LF	1,004
161		731628	Minor Concrete (V-Ditch)	LF	758
162		731629	Minor Concrete (Valley Gutter)	CY	4
163		731630	Minor Concrete (Weir - Bioretention)	CY	2
164		731631	Minor Concrete (Plated Sidewalk Underdrain)	LF	8
165		731632	Minor Concrete (Wheel Stop)	EA	19
166		731633	Minor Concrete (Sanitary Sewer Blanket)	CY	29
167		731710	Remove Concrete Curb	LF	390
168		731790	Remove Concrete Island (Portions)	SY	59
169		731840	Remove Concrete (Curb and Gutter)	LF	3,107
170		782110	Reset Mailbox	EA	1
171		800360	Chain Link Fence (Type CL-6)	LF	1,098
172		800405	Chain Link Fence (Type CL-12)	LF	240
173		803050	Remove Chain Link Fence	LF	1,637
174		803110	Wood Fence	LF	217
175		782110	Reset Gate	EA	3

ITEM NO.	FINAL PAY ITEM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
176		810120	Remove Pavement Marker	EA	15
177		810230	Pavement Marker (Retroreflective)	EA	39
178		820250	Remove Roadside Sign	EA	37
179		820610	Relocate Roadside Sign	EA	29
180		820840	Roadside Sign - One Post	EA	27
181	F	839521	Cable Railing	LF	757
182		830100	3-Rail Guardrail	LF	347
183		830200	Guardrail	LF	462
184		830300	Handrailing	LF	258
185		840515	Thermoplastic Pavement Marking	SF	3,012
186		840504	4" Thermoplastic Traffic Stripe	LF	783
187		840505	6" Thermoplastic Traffic Stripe	LF	4,540
188		840506	8" Thermoplastic Traffic Stripe	LF	989
189		810230	Markers	EA	39
190		846030	Remove Thermoplastic Traffic Stripe	LF	4,324
191		846035	Remove Thermoplastic Pavement Marking	SF	1,642
192		846036	Green Bike Lane	SF	1,521
193		860460	Lighting & Sign Illumination & Security	LS	1
194		860604	Rapid Flashing Beacon System	LS	1
195		770800	Foot Bridge (Frog Pond)	LS	1
196		872133	Modifying Signal and Lighting System	LS	1
197		059999A	Agency Permit Fees	LS	1

Supplemental Work - Contingency Items

ITEM NO.	FINAL PAY ITEM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
SW1		066105	Resident Engineer's Office	LS	1
SW2		066595	Water Pollution Control Maintenance Sharing	LS	1
SW3		066596	Additional Water Pollution Control	LS	1
SW4		066597	Stormwater Sampling Analysis	LS	1
SW5		066610	Partnering	LS	1
SW6		066670	Payment Adjustments for Price Index Fluctuations	LS	1
SW7		066919	Dispute Resolution Board	LS	1
SW8		066999	Construction Staking	LS	1
SW9		120300	Utility Conflict Allowance	LS	1
SW10		120100	Traffic Control System	LS	1

STANDARD PLANS LIST

The standard plan sheets applicable to this Contract include those listed below. The applicable revised standard plans (RSPs) listed below are included in the project plans.

ABBREVIATIONS, LINES, SYMBOLS, AND LEGEND

A3A	**Abbreviations (Sheet 1 of 3)**
A3B	**Abbreviations (Sheet 2 of 3)**
A3C	**Abbreviations (Sheet 3 of 3)**
A10A	**Legend - Lines and Symbols (Sheet 1 of 5)**
A10B	**Legend - Lines and Symbols (Sheet 2 of 5)**
A10C	**Legend - Lines and Symbols (Sheet 3 of 5)**
A10D	**Legend - Lines and Symbols (Sheet 4 of 5)**
A10E	**Legend - Lines and Symbols (Sheet 5 of 5)**

PAVEMENT MARKERS, TRAFFIC LINES, AND PAVEMENT MARKINGS

RSP A20A	**Pavement Markers and Traffic Lines - Typical Details**
A20B	**Pavement Markers and Traffic Lines - Typical Details**
A20C	**Pavement Markers and Traffic Lines - Typical Details**
RSP A20D	**Pavement Markers and Traffic Lines - Typical Details**
A24A	**Pavement Markings - Arrows**
A24B	**Pavement Markings - Arrows and Symbols**
A24C	**Pavement Markings - Symbols and Numerals**
A24D	**Pavement Markings - Words**
A24F	**Pavement Markings - Crosswalks**

EXCAVATION AND BACKFILL

A62A	**Excavation and Backfill - Miscellaneous Details**
A62B	**Limits of Payment for Excavation and Backfill - Bridge Surcharge and Wall**
A62C	**Limits of Payment for Excavation and Backfill - Bridge**
A62D	**Excavation and Backfill - Concrete Pipe Culverts**
RSP A62DA	**Excavation and Backfill - Concrete Pipe Culverts - Indirect Design Method**
A62F	**Excavation and Backfill - Metal and Plastic Culverts**
A62G	**Excavation and Backfill - Precast Reinforced Concrete Box Culvert**
A85	**Chain Link Fence**

CURBS, DRIVEWAYS, DIKES, CURB RAMPS, AND ACCESSIBLE PARKING

A87A	**Curbs and Driveways**
A87B	**Hot Mix Asphalt Dikes**
A88A	**Curb Ramp Details**
D73B	**Precast Drainage Inlets - Types G1, G2, G3, G4, G5 and G6**
D73F	**Precast Drainage Inlet Notes**
D73G	**Precast Drainage Inlet Tables**
D77A	**Grate Details No. 1**
D77B	**Grate Details No. 2**
D78C	**Inlet Depressions - Hot Mix Asphalt Shoulders**
D94B	**Concrete Flared End Sections**

LANDSCAPE AND EROSION CONTROL

H1	**Landscape and Erosion Control Symbols**
H2	**Landscape Details**
H3	**Landscape Details**
H4	**Landscape Details (Sprinkler Assembly)**
RSP H5	**Landscape Details (Swing Joint and Protector)**
H6	**Landscape Details**
H7	**Landscape Details**
H8	**Landscape Details**
RSP H9	**Landscape Details**
H10	**Irrigation Controller Enclosure Cabinet**
H51	**Erosion Control Details - Fiber Roll and Compost Sock**
H52	**Rolled Erosion Control Product**

TEMPORARY CRASH CUSHIONS, RAILING AND TRAFFIC SCREEN

RSP T1A	**Temporary Crash Cushion, Sand Filled (Unidirectional)**
RSP T1A1	**Temporary Crash Cushion, Sand Filled (Unidirectional)**
RSP T1B	**Temporary Crash Cushion, Sand Filled (Bidirectional)**
RSP T2	**Temporary Crash Cushion, Sand Filled (Shoulder Installations)**
T3A	**Temporary Railing (Type K)**
T3B	**Temporary Railing (Type K)**
RSP T3C	**Temporary Barrier System (Cross Bolt)**
RSP T3D	**Temporary Barrier System (Cross Bolt)**
RSP T3E	**Temporary Barrier System (Cross Bolt)**
RSP T4	**Temporary Traffic Screen**

TEMPORARY TRAFFIC CONTROL SYSTEMS

T9	**Traffic Control System Tables for Lane and Ramp Closures**
T13	**Traffic Control System with Reversible Control on Two Lane Conventional Highways**
T21	**Traffic Control System Construction Work Zone Speed Limit Reduction Twenty-Four Hours a Day 7 Days a Week (24/7)**

TEMPORARY WATER POLLUTION CONTROL

T51	**Temporary Water Pollution Control Details (Temporary Silt Fence)**
T56	**Temporary Water Pollution Control Details (Temporary Fiber Roll)**
T57	**Temporary Water Pollution Control Details (Temporary Check Dam)**
T58	**Temporary Water Pollution Control Details (Temporary Construction Entrance)**
T59	**Temporary Water Pollution Control Details (Temporary Concrete Washout Facility)**
T60	**Temporary Water Pollution Control Details (Temporary Reinforced Silt Fence)**
T61	**Temporary Water Pollution Control Details (Temporary Drainage Inlet Protection)**
T62	**Temporary Water Pollution Control Details (Temporary Drainage Inlet Protection)**
T63	**Temporary Water Pollution Control Details (Temporary Drainage Inlet Protection)**
T64	**Temporary Water Pollution Control Details (Temporary Drainage Inlet Protection)**
T65	**Temporary Water Pollution Control Details (Temporary High-Visibility Fence)**

BRIDGE DETAILS

B0-1	**Bridge Details**
B0-3	**Bridge Details**
B0-13	**Bridge Details**

RETAINING WALLS

B3-1A	**Retaining Wall Type 1 (Case 1)**
B3-1B	**Retaining Wall Type 1 (Case 2)**
B3-1C	**Retaining Wall Type 1 (Case 3)**
B3-3A	**Retaining Wall Type 1A (Case 1)**
B3-3B	**Retaining Wall Type 1A (Case 2)**
RSP B3-4A	**Retaining Wall Type 5 (Case 1)**
RSP B3-4B	**Retaining Wall Type 5 (Case 2)**
RSP B3-4C	**Retaining Wall Type 5 (Case 3)**
B3-5	**Retaining Wall Details No. 1**
B3-6	**Retaining Wall Details No. 2**
RSP B3-7A	**Retaining Wall Type 6 (Case 1)**
RSP B3-7B	**Retaining Wall Type 6 (Case 2)**
B3-7C	**Retaining Wall Type 6 Details**

JOINT SEALS

B6-21	**Joint Seals (Maximum Movement Range = 2")**

CHAIN LINK RAILING, CABLE RAILING AND TUBULAR HAND RAILING

B11-52	**Chain Link Railing Type 7**

BRIDGE CONCRETE BARRIERS

ROADSIDE SIGNS

RS1	**Roadside Signs - Typical Installation Details No. 1**
RS2	**Roadside Signs - Wood Post - Typical Installation Details No. 2**
RS4	**Roadside Signs - Typical Installation Details No. 4**
S89	**Roadside Sign - Formed Single Sheet Aluminum Panel**
S93	**Framing Details for Framed Single Sheet Aluminum Signs, Rectangular Shape**
S94	**Roadside Framed Single Sheet Aluminum Signs, Rectangular Shape**
S95	**Roadside Single Sheet Aluminum Signs, Diamond Shape**

ELECTRICAL SYSTEMS - LEGEND AND ABBREVIATIONS

ES-1A	**Electrical Systems (Legend)**
ES-1B	**Electrical Systems (Legend)**
ES-1C	**Electrical Systems (Legend)**

ELECTRICAL SYSTEMS - SERVICE EQUIPMENT AND WIRING DIAGRAMS

ES-2A	**Electrical Systems (Service Equipment)**
ES-2B	**Electrical Systems (Service Equipment)**
ES-2D	**Electrical Systems (Service Equipment Enclosure and Typical Wiring Diagram, Type III - A Series)**
ES-2E	**Electrical Systems (Service Equipment Enclosure and Typical Wiring Diagram, Type III - B Series)**
ES-2F	**Electrical Systems (Service Equipment Enclosure and Typical Wiring Diagram, Type III - C Series)**

ES-2G	**Electrical Systems (Service Equipment Enclosure and Typical Wiring Diagram, Type III - D Series)**

ELECTRICAL SYSTEMS - SIGNAL HEADS, SIGNAL FACES AND MOUNTINGS

ES-4A	**Electrical Systems (Signal Head Mounting)**
ES-4B	**Electrical Systems (Pedestrian Signal Heads)**
ES-4E	**Electrical Systems (Signal Heads and Optical Detector Mounting)**

ELECTRICAL SYSTEMS - DETECTORS

ES-5B	**Electrical Systems (Detectors)**

ELECTRICAL SYSTEMS - SIGNAL AND LIGHTING STANDARDS

ES-7B	**Electrical Systems (Signal and Lighting Standard, Type 1 and Equipment Identification Characters)**
ES-7F	**Electrical Systems (Signal and Lighting Standard, Case 4 Signal Mast Arm Loading, Wind Velocity = 100 mph and Signal Mast Arm Lengths 25' to 45')**

ELECTRICAL SYSTEMS - PULL BOX

ES-8B	**Electrical Systems (Traffic Pull Box)**

ORGANIZATION

Special provisions are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*.

Each special provision begins with a revision clause that describes or introduces a revision to the *Standard Specifications*.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

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DIVISION I GENERAL PROVISIONS

1 GENERAL

Add to section 1-1.01:

Bid Items and Applicable Sections

Item code	Item description	Applicable Section
066105	Residents Engineer's Office	6
066595	Water Pollution Control Maintenance Sharing	6
066596	Additional Water Pollution Control	6
066597	Stormwater Sampling Analysis	6
066610	Partnering	6
066670	Payment Adjustments for Price Index Fluctuations	6
066919	Dispute Resolution Board	6
066999	Construction Staking	6
120200	Temporary Facilities	12

Bid Items and Applicable Sections

Item code	Item description	Applicable Section
059999A	Agency Permit Fees	5
120300	Utility Conflict Allowance	12
160120	Remove Tree	16
151000	Remove and Salvage Existing Light Pole	15
190102	Export Excavation	19
198051	Temporary Shoring	19
204011	Plant (Group K) (24" Box Tree)	20
204011	Plant (Group K) (15 Gal. Tree)	20
205035	Wood Mulch	20
204035	Plant (Group A) (NO. 1)	20
204036	Plant (Group B) (NO. 5)	20
841000	Polymer cement surface system pavement markings (Endurablend)	84
201000A	Arbor Structure (Poligon)	20
208649	Quick coupler valves	20
206562	1” Remote Control Valve	20
208220	1/2" Drip In-Line Tubing	20
201000B	Furniture: Bollards	20
201000C	Furniture: Camber Bench	20
201000D	Furniture: Cordia Trash/Recycle	20
201000E	Furniture: Bay City Bike Rack	20
201000F	Furniture: MDF Hydration Station	20
201000G	Furniture: Picnic Table	20
201000H	Tennis Net Post	20
208600	Irrigation Sleeve	20
201000I	Del Rey oaks Signage	56
201000J	Butterfly Garden Signage	56
201000K	Steel Raised Garden Planters	20
201000L	Picket Fence	80
720110	Small Rock Slope Protection 3"-6" size (rip rap cobble)	72
371000	Tennis Court Crack Seal and Resurfacing	37
701000	G3 Catch Basin	70
701001	24" x 24" Concrete Drainage Inlet	70
701002	18" x 18" Drainage Inlet	70
701003	G0L (7') Catch Basin	70
701004	G0L (10') Catch Basin	70
701005	G0L (10') Catch Basin Mod	70
701006	9" Area Drains	70
640100	SMALL HDPE (6" AND LESS)	64
640101	12” SD HDPE	64
013509	8” Gravel Filter	72
770400	Bioretention Pond	77
770600	Tree Box Biofilter (6'x10')	77
770700	Infiltration trench & 48" chamber	77
770800	24” Sidewalk Underdrain Mod	77
770900	Modify of Connect to Existing SD System	77
710114	Abandon Sewer Pipeline	71
704000	Modify Existing SS Manhole	71
770100	Plugging/Grouting Sewer Lines	77
705000	Connect Existing Sewer to New Manhole and Base	71
770200	Sewer Bypass	77
770300	Pre/Post-Construction CCTV Inspection	77
839607	Crash Cushion Atl (SCI-70 GM TL-2) and Concrete Foundation	
511035	Retaining & Seat Wall Concrete Aesthetics	51
710240	Adjust Existing Valves/Meters to Grade	71

Bid Items and Applicable Sections

Item code	Item description	Applicable Section
731514	Minor Concrete (Stamped Concrete)	73
731515	Minor Concrete (Truck Apron)	73
731519	Minor Concrete (Sloped Paving)	73
731521	Minor Concrete (Stairs)	73
731523	Minor Concrete (Trail)	73
731625	Minor Concrete (Retaining Curb 1)	73
731626	Minor Concrete (Retaining Curb 2)	73
731627	Minor Concrete (Retaining Curb 3)	73
731628	Minor Concrete (V-Ditch)	73
731629	Minor Concrete (Valley Gutter)	73
731630	Minor Concrete (Weir - Bioretention)	73
731631	Minor Concrete (Plated Sidewalk Underdrain)	73
731632	Minor Concrete (Wheel Stop)	73
731633	Minor Concrete (Sanitary Sewer Blanket)	73
800405	Chain Link Fence (Type CL-12)	80
803110	Wood Fence	80
830300	Handrailing	83
840504	4" Thermoplastic Traffic Stripe	84
846036	Green Bike Lane	84
860460	Lighting & Sign Illumination & Security	86
860604	Rapid Flashing Beacon System	86
770800	Foot Bridge (Frog Pond)	77
872133	Modifying Signal and Lighting System	87
490326	Steel Soldier Pile (W 24 X 176)	49
839739	Concrete Barrier (TYPE 85)	83
839738	Concrete Barrier (TYPE 85SW)	83

Add to the end of section 1.01:

Where an item is specified to be in writing, use electronic means. Do not submit hard copies unless requested by the Engineer.

Add to section 1-1.07B:

Authority: The Transportation Agency for Monterey County (TAMC), including its authorized officers, employees, agents, consultants and volunteers.

Authority Indemnitees: The Authority and the indemnitees listed in Section 7-1.05B and their respective successors and assigns, governing bodies or boards, board members, officers, director, agents, employee, consultants and subconsultants.

Authority's project website: CMIS is a secure, internet-based collaboration tool that allows project teams to communicate easily regardless of their location. Access to CMIS will be provided to you at no cost. All other costs including computer hardware, software, and internet connection costs will be your responsibility. CMIS will be used for, but not limited to, the following:

1. Forms
2. Submittals
3. Contract Change Orders
4. Progress Payment Estimates
5. Requests for Information
6. Certified Payroll Records

The system requirements and the user information can be obtained by visiting cmis.com. You shall be fully informed on the technical expertise of personnel and computer hardware, software and internet connect requirements prior to bidding the project.

Responses will be sent back to you through CMIS. It is your responsibility to disseminate responses to your subcontractors in any manner they wish. Subcontractors will not have access to CMIS unless requested and approved by the Authority.

All costs associated with the Authority's project website shall be included in other items of work and no separate payment will be made therefore.

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2 BIDDING

Add between the 1st and 2nd paragraphs of section 2-1.06B:

The Department makes the following supplemental project information available:

Supplemental Project Information

Means	Description
Included in the *Information Handout*	Geotechnical Investigation
	Foundation Report for Bridge
	Foundation Report for Retaining Wall No. 1
	Habitat Mitigation and Monitoring Plan (HMMP)
	Transportation Management Plan
	Stormwater Control Plan
	Stormwater Data Report

Add to section 2-1.09:

The item total for plant establishment work must be at least $ 40,000.

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5 CONTROL OF WORK

Replace section 5-1.13B with:

5-1.13B Disadvantaged Business Enterprises

5-1.13B(1) General

Section 5-1.13B applies to a federal-aid contract.

Use each DBE as listed on the DBE Commitment form unless you receive Department prior authorization for termination under section 5-1.13B(2)(c). Ensure that all subcontracts and agreements with DBEs to supply labor or materials are performed under 49 CFR 26.

Maintain records of subcontracts made with DBE subcontractors and records of materials purchased from DBE suppliers. Include in the records:

1. Name and business address of each DBE subcontractor, DBE vendor, and DBE trucking company, regardless of tier
2. Date of payment and total amount paid to each DBE business

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

Before the 15th day of each month for the previous month's work, submit:

1. Monthly DBE Trucking Verification form
2. Monthly DBE Payment form

If a DBE is decertified before completing its work, the business must notify you in writing of the decertification date within 15 days of decertification. Notify the Engineer and submit the DBE's decertification notice within 2 business days of your receipt. Upon work completion, complete a Disadvantage Business Enterprises (DBE) Certification Status Change form and submit within 10 days of Contract acceptance.

Upon work completion, complete a Final Report – Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors form and submit within 10 days of Contract acceptance. The Department withholds the greater of 10 percent of the DBE commitment or $10,000 until the form is submitted. The Department releases the withhold upon submission of the completed form. If additional payments are made to a DBE after submittal of the completed form, submit an updated form to reflect such payments.

Failure to carry out requirements of 49 CFR 26 is a material breach of the Contract, which may result in the termination of the Contract or other remedy as the Department deems appropriate, such as:

1. Withholding monthly progress payments
2. Assessing sanctions
3. Applying liquidated damages
4. Disqualification from future bidding as nonresponsive

5-1.13B(2) Disadvantaged Business Enterprises

5-1.13B(2)(a) General

Section 5-1.13(B)(2) applies if a DBE goal is shown on the *Notice to Bidders*.

Certification as a DBE identifies if the business has the means to perform its work under assigned North American Industry Classification System codes and work codes applicable to the type of work the DBE will perform on the Contract. Certification does not ensure the DBE will perform a commercially useful function on the Contract.

You are responsible for ensuring each DBE listed on the DBE Commitment form performs:

1. The description and value of the subcontracted work or material supplied as committed
2. A commercially useful function under 49 CFR 26.55 for committed work or materials

For DBE committed work, the Department only pays for work performed or supplied by the listed DBE and if a commercially useful function was performed by the listed DBE.

You are responsible to remediate noncompliant DBE work to meet your DBE commitment. Submit a DBE commitment remediation plan within 5 business days of the Engineer's request.

Pay your DBEs in conformance with section 5-1.13E.

Failure to promptly pay DBEs may result in a withholds corresponding to the value of the DBE's committed work from future progress payments. In addition, unpaid DBE amounts will not count towards your DBE commitment, which may result in equivalent withholds or deductions and a 2 percent penalty on the unpaid amount for every month payment is not made.

5-1.13B(2)(b) Commercially Useful Function

DBEs must perform a commercially useful function under 49 CFR 26.55 when performing work or supplying materials listed on the DBE Commitment form. The DBEs value of work will only count toward the DBE commitment if the DBE performs a commercially useful function under 49 CFR 26.55.

Provide written notification to the Engineer at least 15 days in advance of each DBE's initial performance of work or supplying materials for the Contract. Include the DBE's name, contract work to be performed, and the location, date, and time of where their work will take place.

Within 10 days of a DBE initially performing work or supplying materials on the Contract, submit your initial evaluation and validation of their performance of a commercially useful function using DBE Commercially Useful Function Evaluation form. Include the following supporting information with your submittal:

1. Subcontract agreement with the DBE
2. Purchase orders
3. Bills of lading
4. Invoices
5. Proof of payment

Monitor your DBEs' performance of commercially useful function with quarterly evaluations and validations throughout their duration of work on the Contract using DBE Commercially Useful Function Evaluation form. Submit your quarterly evaluation and validation DBE Commercially Useful Function Evaluation forms by the 5th of the month for the previous three month's work. Include any additional supplemental supporting information with your submittal. If your DBE's work-start and -end dates for the Contract exceed a three-month period, regardless of time not on the Contract, quarterly evaluations and validations are required.

Notify the Engineer immediately if you believe the DBE may not be performing a commercially useful function.

The Department will verify your DBEs performance of commercially useful functions by reviewing your initial and quarterly DBE Commercially Useful Function Evaluation forms, your submitted supporting information, field observations, and through select Department evaluations. The Department may evaluate DBEs and their commercially useful function performance at any time during the Contract. In such instances, the Department will provide written notice to you and your DBE at least 2 business days prior to the evaluation. You and your DBE must participate in the evaluation. Upon completing the evaluation, the Department will share the evaluation results with you and your DBE. The evaluation results may include items that must be remedied upon your receipt. If the Department determines the DBE is not performing a commercially function you must suspend performance of the noncompliant work.

You and your DBEs must submit any additional commercially useful function related records and documents within 5 business days of Department request such as:

1. Proof of ownership or lease and rental agreements for equipment
2. Tax records
3. Employee rosters
4. Certified payroll records
5. Inventory rosters

Failure to submit required DBE Commercially Useful Function Evaluation forms or requested records and documents will result in withhold of payment for the value of work completed by the DBE.

If you and or the Department determine a listed DBE is not performing a commercially useful function in performance of their DBE committed work, suspend performance of the noncompliant portion of the work. Submit a corrective action plan within 5 days of the noncompliant commercially useful function determination. The plan must identify how you will remediate when feasible or demonstrate commercially useful function compliance for the remaining portion of the DBE's work. Allow 5 days for plan review. The corrective actions must be implemented within 5 days of Engineer's authorization of your plan and prior to resumption of the noncompliant portion of the DBE's committed work.

If corrective actions cannot be accomplished to assure the DBE will perform a commercially useful function on the Contract, you may have good cause to request termination of the DBE under section 5-1.13B(2)(c).

5-1.13B(2)(c) Termination

Termination of a DBE may be allowable for good cause reasons under 49 CFR 26.53(f)(3) with prior written authorization from the Department. You must provide documentation supporting good cause reasoning with your termination request. If the termination request is authorized by the Department, you must then either replace the DBE with another DBE or demonstrate good faith efforts to do so under 5-1.13B(2)(d).

Use the following procedure to request the termination of a DBE or portion of their work:

1. Provide written notice to the DBE of your intent to use other forces or material sources and include one or more of the good cause reasons under 49 CFR 26.53(f)(3). Simultaneously send a copy of this written notice

to the Engineer. Your written notice to the DBE must request they provide any response to both you and the Engineer.
2. Provide the DBE with 5 business days to respond to your written notice by either acknowledging their agreement or documenting their reasoning as to why the use of other forces or sources of materials should not occur. If the DBE does not respond within 5 business days, you may move forward with the request process as if the DBE had agreed to your written notice.
3. Submit your DBE termination request by written letter to the Engineer and include:
    3.1. One or more good cause reasons identified under 49 CFR 26.53(f)(3) along with supporting documentation.
    3.2. Your written notice to the DBE regarding the request, including proof of transmission and tracking documentation of your written notice.
    3.3. The DBE's response to your written notice, if received. If a written response was not provided, provide a statement to that effect.

The Department will respond to your complete DBE termination request as follows:

1. Where the DBE has agreed in writing or fails to timely respond to your written notice, the Department will respond within 2 business days from receipt of your request.
2. Where the DBE has disagreed in writing with your written notice, the Department will meet with you and the DBE within 5 business days from receipt of your request. The Department will respond to your request within 5 business days from this meeting.
3. If you fail to provide a complete request for DBE termination the Department will identify deficiencies within 5 business days from receipt of your request.

If the Department authorizes your DBE termination request it will do so in writing.

Work performed by a firm other than the committed DBE or authorized replacement DBE without first obtaining Department authorization for termination will be a violation of these specifications and DBE federal regulations. Such violations will result in payment deductions for the value of the work associated with the noncompliant DBE commitment. In addition, if the committed DBE is also a listed subcontractor, the Department applies an additional penalty up to 10 percent of the value of the subject work as a permanent deduction.

5-1.13B(2)(d) Replacement

After receiving Department written authorization of your DBE termination request, you must obtain separate Department authorization of your replacement plan.

Your replacement plan must identify DBE replacement firms to perform the work or demonstrate that you have made a good faith effort to use DBE replacement firms. DBE replacement firms must:

1. Perform at least the same dollar amount of work as the terminated DBE to the extent needed to meet the DBE commitment
2. Possess certifications for the most specific available North American Industry Classification System codes and work codes applicable to the work the firm will perform on the Contract
3. Perform a commercially useful function under 49 CFR 26.55

Use the following procedure to request authorization of your replacement plan:

1. Submit a request to replace a DBE with other forces or material sources by written letter to the Department which must include:
    1.1. Description of remaining uncommitted item work made available for replacement DBE solicitation and participation.
    1.2. The proposed DBE replacement firm's business information, the work they have agreed to perform, and the following:
        1.2.1. Quote for bid item work and description of work to be performed
        1.2.2. Proposed subcontract agreement and written confirmation of agreement to perform on the Contract
        1.2.3. Revised Subcontracting Request form
2. If you have not identified a DBE replacement firm, submit documentation of your good faith efforts to use DBE replacement firms within 7 days of Department's authorization to terminate the DBE. You may request the Department's approval to extend this submittal period to a total of 14 days. The Department considers your documented actions taken to identify a DBE replacement firm in determining whether a good faith effort was

made under 49 CFR 26 app A. Submit documentation of actions taken to find a DBE replacement firm, such as:

2.1. Search results of certified DBEs available to perform the original DBE work identified and or other work you had intended to self-perform, to the extent needed to meet your DBE commitment
2.2. Solicitations of DBEs for performance of work identified in 2.1
2.3. Correspondence with interested DBEs that may have included contract details and requirements
2.4. Negotiation efforts with DBEs that reflect why an agreement was not reached
2.5. If a DBE's quote was rejected, provide your reasoning for the rejection, such as why the DBE was unqualified for the work, or why the price quote was unreasonable or excessive
2.6. Copies of each DBE's and non-DBE's price quotes for work identified in 2.1, as the Department may contact the firms to verify solicitation efforts and determine if the DBE quotes are substantially higher
2.7. Additional documentation that you believe supports your good faith effort

The Department will respond to your complete replacement plan as follows:

1. If a DBE replacement firm has been identified and required documentation has been provided, the Department will respond within 2 business days from receipt of your plan
2. If a DBE replacement firm has not been identified, but good faith effort documents have been provided, the Department will respond within 5 business days from receipt of your plan
3. If you fail to provide a complete replacement plan, the Department will return your request and identify deficiencies within 5 business days from receipt of your plan

If the Department authorizes your replacement plan it will do so in writing.

Submit a revised Subcontracting Request form if your replacement plan is authorized.

DBE committed work performed by a nonauthorized firm, will be a violation of these specifications and DBE federal regulations. Such violations will result in payment deductions for the value of the work associated with the DBE commitment. The Department will take a permanent deduction for the value of the DBE work that was not performed by the authorized DBE. In addition, if the associated work was also to be performed by a listed subcontractor, the Department applies an additional penalty up to 10 percent of the value of the subject work as a permanent deduction.

5-1.13B(3) Use of Joint Checks

You may use a joint check between the Contractor or lower-tier subcontractor and a DBE subcontractor purchasing materials from a material supplier if you obtain prior approval from the Department for your proposed use of joint checks upon submittal of a DBE Joint Check Agreement Request form.

To use a joint check, the following conditions must be met:

1. All parties, including the Contractor, must agree in writing to the use of a joint check
2. Entity issuing the joint check acts solely to guarantee payment
3. DBE must release the check to the material supplier
4. Department must authorize the request before implementation
5. Any party to the agreement must provide requested documentation within 10 days of the Department's request for the documentation
6. Agreement to use a joint check must be short-term, not to exceed 1 year, allowing sufficient time needed to establish or increase a credit line with the material supplier

A request for a joint check agreement may be initiated by any party.

If a joint check is used, the DBE remains responsible for all elements of 49 CFR 26.55(c)(1).

Failure to comply with section 5-1.13B(3) disqualifies DBE participation and results in no credit and no payment to the Contractor for DBE participation.

A joint check may not be used between the Contractor or subcontractor and a DBE regular dealer, bulk material supplier, manufacturer, wholesaler, broker, trucker, packager, manufacturer's representative, or other persons who arrange or expedite transactions.

Add to Section 5-1.20(B)1:

You are obligated to pay the actual cost of all permit fees directly associated with the project. The actual cost shall be determined by the receipts provided by the permit-issuing authorities.

You must maintain accurate records of all permit fees paid, including receipts, invoices, and any other relevant documentation. Receipts for all permit fees must be submitted to the Engineer for verification and reimbursement. Failure to provide valid receipts may result in non-reimbursement of the incurred permit fees.

For the purpose of bidding, a lump sum cost, Agency Permit Fees, has been assumed to cover the anticipated permit fees. This lump sum cost is denoted as $40,000 in the bid documents.

The lump sum cost of $x is a placeholder for bidding purposes only and does not represent the actual cost of permit fees. The successful bidder shall be responsible for the actual costs incurred, as determined by the receipts submitted.

In the event the actual cost of permit fees is less than the lump sum amount of $40,000 assumed for bidding purposes, the contract shall be adjusted accordingly, and any excess funds will be deducted from the contract price.

Replace Section 5-1.20H with:

5-1.20H Agency Relations

5-1.20H(1) Relations with Caltrans

This project is located within the jurisdiction of Caltrans. An encroachment permit has been issued to the Department for work to be performed within Caltrans right of way. You must apply for and obtain a Double Permit (DP) through Caltrans Encroachment Permit Office before beginning work on the project. Contact Caltrans Encroachments regarding the Double Permit at District 5, Permits Branch, 50 Higuera Street, San Luis Obispo, CA 93401, (805) 549-3152.

You are required to adhere to all the requirements as specified within referenced permit. The Contractor is required to pay the double permit fee.

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

5-1.20H(2): Relations with the City of Monterey

For the work to be performed within the jurisdiction of the City of Monterey, you must apply for an encroachment permit before beginning any work in City right of way.

You are required to adhere to all the requirements as specified within referenced permit. The Contractor is required to pay the permit fee.

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

5-1.20H(3): Relations with the City of Del Rey Oaks

For the work to be performed within the jurisdiction of the City of Del Rey Oaks, you must apply for an encroachment permit before beginning any work in City right of way.

You are required to adhere to all the requirements as specified within referenced permit. The Contractor is required to pay the permit fee.

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

5-1.20H(4): Relations with the City of Seaside

For the work to be performed within the jurisdiction of the City of Seaside, you must apply for an encroachment permit, grading permit, and pay the Seaside County Sanitation District fee before beginning any work in City right of way.

You are required to adhere to all the requirements as specified within referenced permit. The Contractor is required to pay the permit fee.

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

5-1.20H(5): Relations with the Monterey Peninsula Regional Parks District

For the work to be performed within the jurisdiction of the Monterey Peninsula Regional Parks District (MPRPD), you must apply for an encroachment permit before beginning any work in MPRPD right of way.

You are required to adhere to all the requirements as specified within referenced permit. The Contractor is required to pay the permit fee.

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

Add to section 5-1.20E:

The local water authority is Monterey Peninsula Water Management District (MPWMD). You must submit an application for a Construction/Hydrant Meter permit to access water from local public hydrants**.** You must submit an application for a MPWMD Water Efficient Landscape Ordinance (WELO) permit. The cost of the meter/permit and water supplied for construction shall be considered as included in the item of work requiring the water and will not be separately measured or paid for. The cost of the WELO permit will be paid in accordance with Section 5-1.20(B)1.

Replace section 5-1.20F with:

5-1.20F Irrigation Water Service Charges

Contact the local water authority to arrange a start date for water service and pay for the service until Contract acceptance.

The local water authority is California American Water Company (Cal Am).

Submit a copy of each monthly water bill.

Notify the Engineer upon paying your final bill.

If the local water authority's charges are changed, the Department adjusts the lump sum price based on the difference between the specified charges and the changed charges.

Replace section 5-1.24 with:

5-1.24 CONSTRUCTION SURVEYS

The Contractor places stakes and marks under chapter 12, “Construction Surveys,” of the Department’s Survey Manual.

Preserve stakes and marks placed by the Contractor. If the stakes or marks are destroyed, the Contractor replaces them at the Contractor’s earliest convenience at no additional cost.

Replace section 5-1.26 with:

5-1.26 GRADE QUALITY CONTROL

Use a global navigation satellite system (GNSS) rover, robotic total station equipment, or a level to check the grades at the frequencies shown in the following table:

Grade Checking Requirements

Type of work	Area or distance represented by the grade checking	Frequency (number of grade points)
Earthwork for cut and fill slopes ≤15 feet	200 feet	2
Earthwork for cut and fill slopes >15 feet	1,000 sq yd	1
Rough grading	1,000 sq yd	1
Trenching	100 feet	6
Subgrade	1 mi	30
Subbase layer	1 mi	50
Base layer	1 mi	100
Curb and gutter	100 feet	6
Concrete barrier	100 feet	5
Finishing roadway	1,000 sq yd	2

Increase the frequency of grade checking of a roadway:

1. Wherever its curve radius is 500 feet or less
2. In areas of a superelevation transition
3. At intersections

Notify the Engineer when an area is ready for line and grade inspection. Submit the grade checking results on a Grade Checking Report form as an informational submittal.

Add between the 2nd and 3rd paragraphs of section 5-1.36C(3):

During the progress of the work under this Contract, the utility owner will relocate a utility shown in the following table within the corresponding number of working days shown. Notify the Engineer when the site is ready for utility work. After verifying the site is ready for utility work, the Engineer notifies the utility owner. The working days to relocate start on the notification date to the utility owner.

Utility Relocation and Department-Arranged Time for the Relocation

Utility	Location	Working days
Cal America Water	SR 218 & Carlton Dr.	24
PG & E Gas	SR 218 & Carlton Dr.	24
PG & E Electric Distribution	SR 218 & Carlton Dr., SR 218 & N. Fremont Blvd.	24
PG & E Electric Transmission	SR 218 & Carlton Dr.	24
AT&T	SR 218 & Carlton Dr.	24

Installation of the utilities shown in the following table requires coordination with your activities. Make the necessary arrangements with the utility company through the Engineer and submit a schedule:

1. Verified by a representative of the utility company
2. Allowing at least the time shown for the utility owner to complete its work

Utility Relocation and Contractor-Arranged Time for the Relocation

Utility	Utility address	Location	Working days
Cal America Water	511 Forest Lodge Rd, #100, Pacific Grove, CA 93950	SR 218 & Carlton Dr.	20
PG & E Electric Distribution	300 Lakeside Drive, Oakland, CA 94612	SR 218 & Carlton Dr., SR 218 & N. Fremont Blvd.	24

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6 CONTROL OF MATERIALS

Replace section 6-1.03B with:

6-1.03B Submittals

6-1.03B(1) General

Not Used

6-1.03B(2) Work Plan

For local material, such as rock, gravel, earth, structure backfill, pervious backfill, imported borrow, and culvert bedding, obtained from a (1) noncommercial source, or (2) source not regulated under California jurisdiction, submit a local material plan for each material at least 60 days before placing the material. The local material plan must include:

1. Certification signed by you and an engineer who is registered as a civil engineer in the State or a professional geologist licensed as a professional geologist by the State stating:

   > I am aware local material from a noncommercial source or a source not regulated under CA jurisdiction must be sampled and analyzed for pH and lead and may require sampling and analysis under section 6-1.03B(3) for other constituents of concern based on the land use history. I am aware that local material sources must not contain ADL at concentrations greater than 80 mg/kg total lead or equal to or greater than 5 mg/L soluble lead as determined by the Waste Extraction Test (WET) Procedures, 22 CA Code of Regs § 66261.24(a)(2) App II. I am aware that a maximum quantity of material may be excavated at the site based on the minimum number of samples taken before excavating at the site under section 6-1.03B(3).

2. Land use history of the local material location and surrounding property
3. Sampling protocol
4. Number of samples per volume of local material
5. QA and QC requirements and procedures
6. Qualifications of sampling personnel
7. Stockpile history
8. Name and address of the analytical laboratory that will perform the chemical analyses
9. Analyses that will be performed for lead and pH
10. Other analyses that will be performed for possible hazardous constituents based on:
    - 10.1. Source property history
    - 10.2. Land use adjacent to source property
    - 10.3. Constituents of concern in the ground water basin where the job site is located

The plan must be sealed and signed by an engineer who is registered as a civil engineer in the State or a professional geologist licensed as a professional geologist by the State.

If the plan requires revisions, the Engineer provides comments. Submit a revised plan within 7 days of receiving comments. Allow 7 days for the review.

6-1.03B(3) Analytical Test Results

At least 15 days before placing local material, submit analytical test results for each local material obtained from a noncommercial source or a source not regulated under CA jurisdiction. The analytical test results must include:

1. Certification signed by an engineer who is registered as a civil engineer in the State or a professional geologist licensed as a professional geologist by the State stating:

   > The analytical testing described in the local material plan has been performed. I performed a statistical analysis of the test results using the US EPA's ProUCL software with the applicable 95 percent upper confidence limit. I certify that the material from the local material source is suitable for unrestricted use at the job site, it has a pH above 5.0, does not contain soluble lead in concentrations equal to or greater than 5mg/l as determined by the Waste Extraction Test (WET) Procedures, 22 CA Code of Regs § 66261.24(a)(2) App II, does not contain lead in concentrations above 80 mg/kg total lead, is free from all other contaminants identified in the local material plan, and will comply with the job site's basin plan and water quality objectives of the RWQCB.

2. Chain of custody of samples

3. Analytical results no older than 1 year

4. Statistical analysis of the data using US EPA’s ProUCL software with a 95 percent upper confidence limit

5. Comparison of sample results to hazardous waste concentration thresholds and the RWQCB's basin plan requirements and water quality objectives for the job site location

6-1.03B(4) Sample and Analysis

Sample and analyze local material from a (1) noncommercial source or (2) a source not regulated under CA jurisdiction:

1. Before bringing the local material to the job site
2. As described in the local material plan
3. Under US EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)

The sample collection must be designed to generate a data set representative of the entire volume of proposed local material.

Before excavating at the (1) noncommercial material source or (2) a source not regulated under CA jurisdiction, collect the minimum number of samples and perform the minimum number of analytical tests for the corresponding maximum volume of local material as shown in the following table:

Minimum Number of Samples and Analytical Tests for Local Material

Maximum volume of imported borrow (cu yd)	Minimum number of samples and analytical tests
< 5,000	8
5,000–10,000	12 for the first 5,000 cu yd plus 1 for each additional 1,000 cu yd or portion thereof
10,000–20,000	17 for the first 10,000 cu yd plus 1 for each additional 2,500 cu yd or portion thereof
20,000-40,000	21 for the first 20,000 cu yd plus 1 for each additional 5,000 cu yd or portion thereof
40,000–80,000	25 for the first 40,000 cu yd plus 1 for each additional 10,000 cu yd or portion thereof
> 80,000	29 for the first 80,000 cu yd plus 1 for each additional 20,000 cu yd or portion thereof

Do not collect composite samples or mix individual samples to form a composite sample.

Analyze the samples using the US EPA's ProUCL software with a 95 percent upper confidence limit. All chemical analysis must be performed by a laboratory certified by the SWRCB's Environmental Laboratory Accreditation Program (ELAP).

The analytical test results must demonstrate that the local material:

1. Is not a hazardous waste
2. Has a pH above 5.0
3. Has an average total lead concentration, based upon the 95 percent upper confidence limit, at or below 80 mg/kg
4. Is free of possible contaminants identified in the local material plan
5. Complies with the RWQCB's basin plan for the job site location
6 Complies with the RWQCB's water quality objectives for the job site location

6-1.03C Local Material Management

Do not place local material until authorized.

If the Engineer determines the appearance, odor, or texture of any delivered local material suggests possible contamination, sample and analyze the material. The sampling and analysis is change order work unless (1) hazardous waste is discovered or (2) the analytical test results indicate the material does not comply with section 6-1.03B(3).

Dispose of noncompliant local material at an appropriately permitted CA Class I, CA Class II or CA Class III facility. You are the generator of noncompliant local materials.

Replace section 6-1.04 with:

6-1.04 BUY AMERICA

6-1.04A General

Buy America requirements do not apply to the following:

1. Tools and construction equipment used in performing the work
2. Temporary work that is not incorporated into the finished project

6-1.04B Crumb Rubber (Pub Res Code § 42703(d))

Furnish crumb rubber with a certificate of compliance. Crumb rubber must be:

1. Produced in the United States
2. Derived from waste tires taken from vehicles owned and operated in the United States

6-1.04C Steel and Iron Materials

Steel and iron materials must be melted and manufactured in the United States except:

1. Foreign pig iron and processed, pelletized, and reduced iron ore may be used in the domestic production of the steel and iron materials
2. If the total combined cost of the materials produced outside the United States does not exceed the greater of 0.1 percent of the total bid or $2,500, the material may be used if authorized

Furnish steel and iron materials to be incorporated into the work with certificates of compliance and certified mill test reports. Mill test reports must indicate where the steel and iron were melted and manufactured.

All melting and manufacturing processes for these materials, including an application of a coating, must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied.

6-1.04D Manufactured Products

Iron and steel used in precast concrete manufactured products must meet the requirements of section 6-1.04C regardless of the amount used.

Iron and steel used in other manufactured products must meet the requirements of section 6-1.04C if the weight of steel and iron components constitute 90 percent or more of the total weight of the manufactured product.

6-1.04E Construction Materials

Buy America requirements apply to the following construction materials unless otherwise specified:

1. Non-ferrous metals
2. Plastic and polymer-based products such as:
   2.1. Polyvinylchloride
   2.2. Composite building materials
   2.3. Polymers used in fiber optic cables
3. Glass
4. Lumber
5. Drywall

Where one or more of these construction materials have been combined by a manufacturer with other materials through a manufacturing process, Buy America requirements do not apply unless otherwise specified.

Furnish construction materials to be incorporated into the work with certificates of compliance with each project delivery. Manufacturer's certificate of compliance must identify where the construction material was manufactured and attest specifically to Buy America compliance.

All manufacturing processes for these materials must occur in the United States.

Replace section 6-1.06 with:

6-1.06 BUY CLEAN CALIFORNIA ACT

6-1.06A Summary

For projects with a total bid over $1 million and 175 or more original working days, the materials or products shown in the following table are subject to the Buy Clean California Act (Pub Cont Code § 3500 et seq.):

Material or product	Material specifications
Carbon steel rebar[a]	Section 52-1.02B, "Bar Reinforcement" Excludes epoxy-coated or galvanized reinforcement uses.
Structural steel[b]	Section 55-1.02D(1), "General," – Structural Steel and Other Materials tables and Section 99, "Building Construction." For hot-rolled, plate or hollow products.
Flat glass[c]	Section 99, "Building Construction"
Mineral wool board insulation[d]	Section 99, "Building Construction"

[a]For each mill providing 20,000 pounds or more on the project
[b]For each mill providing 5,000 pounds or more on the project
[c]For each manufacturer providing 2,000 square feet or more on the project
[d]For each manufacturer providing 4,000 square feet or more on the project

An informal-bid contract is not subject to Buy Clean California Act requirements.

For carbon steel rebar material subject to Buy Clean California Act, the source mill must be on the Authorized Material List for Buy Clean California Act compliant steel mills. Identify source mills on Notice of Materials to be Used form submittals.

For structural steel, flat glass, and mineral wool board insulation subject to Buy Clean California Act, submit an environmental product declaration for each applicable material or product at least 15 days before scheduled installation. The global warming potential of each applicable material or product as evidenced by its environmental product declaration shall not exceed the maximum acceptable global warming potential values established by the Department of General Services. Do not install the applicable material or product until the submittal has been authorized. The maximum acceptable global warming potential for each category of material or product is published on the Department of General Services website at:

https://www.dgs.ca.gov/

For product category rules for structural steel, flat glass, or mineral wool board insulation, go to the METS website. Use the product category rule in effect on the date of bid opening unless otherwise authorized. An environmental product declaration for structural steel, flat glass, or mineral wool board is not required for either of the following conditions:

1. Applicable product category rule has expired without replacement as of the bid opening date.
2. Applicable product category rule was issued less than 100 days before the bid opening date.

Upon each jobsite shipment receipt of materials or products subject to these Buy Clean California Act requirements, report the represented quantity information using the Department's Data Interchange for Materials Engineering.

6-1.06B Definitions

environmental product declaration: Independently verified document created and verified under International Organization for Standardization (ISO) 14025 for Type III environmental declarations that identifies the global warming potential emissions of the facility-specific material or product through a product stage life cycle assessment.

product category rule: Program operator established rule based on the science of life cycle assessment that governs the development of the environmental product declaration for the material or product.

product stage: Boundary of the environmental product declaration that includes (1) raw material supply, (2) transportation processes, and (3) processing operations, including operations such as melting, mixing, milling, finishing, curing, cooling, trimming, packaging and loading for transport delivery. Commonly referred to as a "cradle-to-gate" life cycle assessment.

program operator: Independent agency that supervises and confirms the full environmental product declaration development process under ISO 14025.

raw material supply: Upstream processes which can include allocations, extraction, refinement, reclamation, handling and processing of the constituents used in producing the material or product.

transportation processes: Includes transportation of raw, reclaimed or recycled material constituents from the supplier to the gate of the manufacturer, producer or fabricator. Includes transport of related waste products.

6-1.06C Submittals

You must register on the Department's Data Interchange for Materials Engineering at least 15 days before submitting either of the following:

1. Represented quantity information for materials or products subject to Buy Clean California Act
2. Environmental product declarations for structural steel, flat glass, or mineral wool board insulation

Follow the registration process at:

https://dime.dot.ca.gov/

Submit environmental product declarations for structural steel, flat glass, and mineral wool board insulation to the Department's Data Interchange for Materials Engineering and provide PDF copies to the Engineer.

Submit certified mill test reports upon delivery of carbon steel rebar and structural steel materials to the project documenting their compliance. Do not incorporate these materials and products into the work until compliant documentation has been provided to the Engineer.

For each material or product subject to Buy Clean California Act requirements, complete the represented quantity information on the Department's Data Interchange for Materials Engineering within 5 business days of shipment receipt at the project site.

Immediately notify the Engineer if a program operator has determined their product category rule does not allow for development of a facility-specific environmental product declaration for structural steel, flat glass, or mineral wool board insulation. Include written correspondence from the program operator. If the Engineer determines the development of a facility-specific environmental product declaration for structural steel, flat glass, or mineral wool board insulation cannot be achieved, an environmental product declaration will not be required for that material or product.

6-1.06D Quality Assurance

Not Used

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7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Replace Section 7-1.02K(6)(j)(iii) with:

7-1.02K(6)(j)(iii) Unregulated Earth Material Containing Lead

Section 7-1.02K(6)(j)(iii) includes specifications for handling, removing, and disposing of unregulated earth material containing lead. Management of this material exposes workers to health hazards that must be addressed in your lead compliance plan. This material contains average lead concentrations below 80 mg/kg total lead and below 5 mg/L soluble lead and is not regulated by DTSC as a hazardous substance or a hazardous waste. This material does not require disposal at a permitted landfill or solid waste disposal facility. The RWQCB has jurisdiction over reuse of this material at locations outside the job site limits.

Unregulated earth material containing lead is not anticipated to be present on the job site. .

Unregulated earth material containing lead has been detected to the depth of excavation within the job site. Unregulated levels of lead found range from less than 2.2 to 99 mg/kg total lead with an average concentration of 32.9 mg/kg total lead as analyzed by EPA test method 6010 or EPA test method 7000 series and based upon a 95 percent upper confidence limit. Unregulated levels of lead on the job site have a predicted average soluble concentration of 1.2 mg/L as analyzed by the California Waste Extraction Test and based upon a 95 percent upper confidence limit.

Handle the material under all applicable laws, rules, and regulations, including those of the following agencies:

1. Cal/OSHA
2. CA RWQCB, Region 3, Central Coast

If unregulated material is disposed of:

1. Submit at least 15 days before disposal, the form titled "Agreement between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-related Material Suitable for Use on Residential Zoned Property" which discloses the lead concentration of the material to the receiving property owner and obtains authorization for disposal on the property. Give a copy of the signed form to the property owner.
2. You are responsible for any additional sampling and analysis required by the receiving property owner.

If you choose to dispose of unregulated material at a commercial landfill:

1. Transport it to a Class III or Class II landfill appropriately permitted to receive the material
2. You are responsible for identifying the appropriately permitted landfill to receive the material and for all associated trucking and disposal costs, including any additional sampling and analysis required by the receiving landfill

Replace section 7-1.11B with:

7-1.11B FHWA-1273

FHWA-1273 – Revised July 5, 2022

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

* $27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. **Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

8 PROSECUTION AND PROGRESS

Replace section 8-1.04C with:

8-1.04C Delayed Start

Section 8-1.04B does not apply.

Start job site activities within 55 days after receiving notice that the Contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department.

Do not start job site activities until the Department authorizes or accepts your submittal for:

1. CPM baseline schedule
2. WPCP or SWPPP, whichever applies
3. Notification of DRA or DRB nominee and disclosure statement
4. Natural resource protection plan
5. Contingency plan for opening closures to traffic
6. SSPC QP certifications

You may enter the job site only to measure controlling field dimensions and locate utilities.

Do not start other job site activities until all the submittals from the above list are authorized or accepted and the following information is received by the Engineer:

1. Notice of Materials To Be Used form.
2. Written statement from the vendor that the order for the sign panels has been received and accepted by the vendor. The statement must show the dates that the materials will be shipped.
3. Written statement from the vendor that the order for electrical material has been received and accepted by the vendor. The statement must show the dates that the materials will be shipped.
4. Written statement from the vendor that the order for structural steel has been received and accepted by the vendor. The statement must show the dates that the materials will be shipped.

You may start job site activities before the 55th day after Contract approval if you:

1. Obtain specified authorization or acceptance for each submittal before the 55th day
2. Receive authorization to start

Submit a notice 72 hours before starting job site activities. If the project has more than 1 location of work, submit a separate notice for each location.

^^

DIVISION II GENERAL CONSTRUCTION

10 GENERAL

Replace *Reserved* in section 10-1.02A with:

Demolition sequencing plan shall be submitted by the contractor within 21 days of contract approval. Demolition limits shall be the extent of the “A” line, “C” and “T” line, “D line”, “F” line, “P” line or “W” line and work must be completed such that it is safely open to public traffic within the demolished area prior to additional demolition.

Add to section 10-1.04:

Meet with the Engineer and submit lookahead schedules weekly or as otherwise agreed upon.

12 TEMPORARY TRAFFIC CONTROL

Replace *Reserved* in section 12-3.11B(5)(a) with:

Provide 2 - C47A project funding identification signs.

Legend for the type of project must read as follows:

ACTIVE TRANSPORTATION PROJECT

Legend for the types of funding on a construction project funding sign must read and be in the order as follows:

ACTIVE TRANSPORTATION PROGAM FUNDS
TAMC MEASURE X FUNDS

Legend for the year of completion on a construction project funding sign must read as follows:

YEAR OF COMPLETION 2025

Provide 2 C48(CA) construction project funding identification signs.

Add the following funding partner agency pictographs:

Partner funding agency	Height dimension of pictograph with notes
Transportation Agency For Monterey County	TAMC LOGO
Active Transportation Program SB1	SB1 LOGO

Replace Reserved in section 12-3.11C(3) with:

Install two Type 1 construction project funding signs at the location determined by the Engineer before starting major work activities visible to roadway users.

Dispose of construction project funding signs upon completion of the project if authorized.

Traffic at the intersection of State Route 218 and North Fremont Road shall have full access maintained to the maximum extent practicable and roadway, lane, and shoulder closures will be avoided to the maximum extent possible. Non-motorized users must be accommodated during construction and pedestrian and bicycle detours shall be made available.

Traffic on State Route 218 between Carlton Drive and Via Verde shall have full access maintained to the maximum extent practicable and roadway, lane, and shoulder closures will be avoided to the maximum extent possible. Non-motorized access across State Route 218 at the existing crossing on the west side of Carlton Dr and State Route 218 should be maintained to the maximum extent practicable.

If a closure of State Route 218 is required across the location of the FORTAG Pedestrian Undercrossing, it shall take place outside of the regular business hours of Del Rey Oaks City Hall, (M-F 8am – 5pm).

Construction of the FORTAG Pedestrian Undercrossing will take place in the following order:

Provide at least one 11 foot minimum lane in each direction during construction of the northern portion of the structure.

Traffic will be shifted north to the completed portion of the structure where at least one 11 foot minimum lane in each direction during the construction of the southern portion of the structure is provided.

The Contractor will be responsible for construction staging and detours for this work, as directed by the Specifications.

Add to section 12-4.02A(3)(a):

For work occurring within California Department of Transportation (Caltrans) right of way you must submit a Traffic Control Plan to the Engineer for review and approval by Caltrans for all phases of work that will occur within Caltrans right of way. Approval must be obtained prior to work beginning.

Replace section 12-3.20 with:

12-3.20 TEMPORARY BARRIER SYSTEMS

12-3.20A General

12-3.20A(1) Summary

Section 12-3.20 includes specifications for placing, maintaining, repairing, and removing temporary barrier systems.

Temporary barrier system consists of:

1. New or undamaged used interconnected barrier segments
2. Segment connection hardware
3. Stakes and anchor bolts

12-3.20A(2) Definitions

clear area width: Minimum width throughout the length of the barrier system that must be maintained clear of obstructions, objects, and work resources during non-working hours. The width is measured perpendicular from the non-traffic side toe.

set back distance: Space measured between the closest toe of temporary barrier and the edge of traveled way for each direction of traffic.

12-3.20A(3) Submittals

Submit as informational submittal for each type of temporary barrier system:

1. Certificate of compliance.
2. Manufacturer's installation instructions except for Type K temporary railing and temporary concrete barrier with cross bolt.
3. Manufacturer's QC test results and daily production log, through the Data Interchange for Materials Engineering (DIME) website. QC test results must include the concrete mix design number, barrier stamped ID, and must be submitted within 3 business days of QC test completion.

Submit test reports for cross bolts that certify compliance with the applicable ASTM requirements. The test reports must be from a laboratory that is accredited to International Standards Organization/International Electrotechnical Commission 17025 by the American Association for Laboratory Accreditation (A2LA) or the ANSI-ASQ National Accreditation Board.

Submit a signed manufacturer's replacement evaluation report within 10 days of damage to a temporary steel barrier system.

12-3.20A(4) Quality Assurance

12-3.20A(4)(a) General

Temporary barrier systems must comply with MASH Test Level 3 except for Type K temporary railing.

Except for Type K temporary railing and temporary concrete barrier with cross bolt, temporary barrier systems must:

1. Be on the Authorized Materials List for highway safety features
2. Comply with the manufacturer's drawings shown on the Department’s Division of Safety Programs website and the manufacturer's installation instructions

If a discrepancy exists, governing ranking in descending order is:

1. These specifications

2. Manufacturer's drawings
3. Manufacturer's installation instructions

QC sampling, testing, and inspection personnel must have an ACI Concrete Field-Testing Technician, Grade I certification.

Temporary concrete barrier segments must:

1. Comply with the requirements for tier 3 precast concrete in section 90-4
2. Be fabricated at a plant on the Authorized Facility Audit List

Concrete must be sampled and tested at the minimum frequencies shown in the following table.

Concrete QC Tests

Quality characteristic	Test method	Minimum testing frequency
Compressive strength	ASTM C172/C172M, ASTM C31/C31M, and ASTM C39/C39M	Once per 300 cu yd of concrete cast, or every day of casting, whichever is more frequent
Slump	ASTM C143/C143M	
Temperature at time of mixing	ASTM C1064/C1064M	
Density	ASTM C138	Once per 600 cu yd of concrete cast or every 7 days of batching, whichever is more frequent
Air content	ASTM C231/C231M or ASTM C173/C173M	If concrete is air entrained, once for each set of cylinders, and when conditions warrant

A daily production log of PC activities must be maintained under section 90-4.01C(4).

12-3.20A(4)(b) Quality Control

Replace damaged temporary concrete barrier segments with exposed reinforcing steel or concrete spalls 1-1/2 inches in depth and 4 inches in width or greater.

Replace damaged temporary steel barrier segments with permanent bends, tearing, or buckling as described in the signed manufacturer's replacement evaluation report.

Realign temporary barrier system within 2 days of impact or displacement when displaced more than 3 inches except when the temporary barrier system is displaced into a traveled lane realign immediately.

12-3.20B Materials

12-3.20B(1) General

Temporary barrier segment must:

1. Be a minimum 31-1/2 inches in height
2. Have at least two lifting holes
3. Be designed to be used with temporary traffic screen when required

Temporary barrier segment may have your name or logo on each barrier segment. The name or logo must be no more than 4 inches in height and must be located no more than 12 inches above the bottom of the barrier segment.

12-3.20B(2) Temporary Concrete Barriers

12-3.20B(2)(a) General

Temporary concrete barrier segment must:

1. Be precast concrete with a minimum 4,000-psi compressive strength.
2 Have reinforcement steel that complies with section 52.
3. Have a finished surface that complies with section 51-1.03F(2).

4. Include the manufacturer's name, lot number, and month and year of manufacture stamped on the top of each barrier segment except for Type K temporary railing. The stamped information must be:
    4.1. No more than 6 inches in height.
    4.2. No more than 12 inches in length.
    4.3. From 3/16 to 1/4 inch in depth.
    4.4. Centered on the top width of the barrier segment.

Segment connection hardware must be one of the following:

1. Steel bar loops and connecting pins
2. "J" hook steel plates
3. Cross bolts

Steel bar loops must comply with ASTM A36/A36M.

Connecting pins must comply with ASTM A307. A round bar of the same diameter may be substituted for the connecting pins. The round bar must:

1. Comply with ASTM A36/A36M
2. Have a minimum length of 26 inches
3. Have a 3-inch-diameter, 3/8-inch-thick plate welded on the upper end using a 3/16-inch fillet weld

"J" hook steel plates must be a minimum 18 inches in height.

Cross bolt hardware includes:

1. Cross bolts
2. Nuts complying with ASTM A563
3. Hardened washer complying with ASTM F436, Type 1
4. Plate washer complying with ASTM A36/A36M and galvanized post fabrication under section 75-1.02B

Cross bolts must:

1. Be a 7/8-inch bolt or threaded rod and comply with one of the following:
    1.1. HS threaded rod ASTM 193, Grade B7
    1.2. HS threaded rod ASTM A449, Type 1
    1.3. HS nonheaded anchor bolt ASTM F1554, Grade 105, Class 2A
2. Have a permanent grade symbol and manufacturer's identifier

Epoxy adhesive must have a minimum 1650 psi bond strength, except for temporary barrier with “J” Hooks.

12-3.20B(2)(b) Temporary Concrete Barrier with "J" Hooks

The steel stakes must be 1-1/2 inches in diameter and 48 inches long.

Anchor hardware must include:

1. Anchor bolt insert 1-inch diameter, 6-inch long
2. Hex head bolt 1-inch diameter with a minimum length of 11 inches plus thickness of asphalt overlay
3. Plate washer 3/8-inch by 3-inch by 3-inch
4. Retainer ring

12-3.20B(2)(c) Temporary Concrete Barrier with Cross Bolt

Reinforcement steel must comply with ASTM A615/ASTM A706, Grade 60.

Reinforcement steel must be galvanized under section 52-3, when shown.

Combinations of reinforcing steel and welded wire reinforcement are authorized. Welded wire reinforcement must comply with ASTM A1064.

Temporary barrier segments must comply with the tolerances shown in the following table:

Precast Barrier Tolerance

Dimension	Tolerance
Length	±1 in
Insert Placement	±1/2 in
Horizontal Alignment	±1/8 in per 10 feet of length
Deviation of Ends	
Horizontal Skew	±1/4 in
Vertical Batter	±1/8 in per foot of depth

Stakes must:

1. Comply with ASTM A36/A36M-14 or ASTM A529-14 Grade 50
2. Be 1-1/2-inch-diameter-by-48-inch-long
3. Have a plate 1/2-by-3-1/2-by-3-1/2-inch welded 2 inches down from the upper end using a 1/4-inch fillet weld under AWS D1.1 or D1.4

Anchor bolts must:

1. Be a threaded rod, 1-1/8-inch-diameter-by-10-1/2-inch-long
2. Comply with ASTM 307
3. Include a nut complying with ASTM A563
4. Include a plate washer:
   4.1. 1/2-by-3-1/2-by3-1/2-inch with a 1-1/4-inch diameter hole in the center
   4.2. Complying with ASTM A36/A36M
   4.3. Galvanized post fabrication under section 75-1.02B

12-3.20B(2)(d) Type K Temporary Railing

Anchor bolts must:

1. Be a threaded rod, 1-inch-diameter-by-15-1/2-inch-long
2. Comply with ASTM 307
3. Include a nut complying with ASTM A563
4. Include a plate washer:
   4.1. 3/8-by-2-1/2-by-3-inch with a 1-1/8-inch diameter hole in the center
   4.2. Complying with ASTM A36/A36M
   4.3. Galvanized post fabrication under section 75-1.02B

12-3.20B(2)(e)–12-3.20B(2)(g) Reserved

12-3.20B(3) Temporary Steel Barriers

Temporary steel barriers segment must:

1. Be galvanized steel.
2. Have a joint connection.
3. Include permanent identification information with no more than 6 inches in height and 12 inches in length and centered on the top width of the segment. The identification information must include:
   3.1. Manufacturer's name.
   3.2. Serial number.
   3.3. Lot number.
   3.4. Month and year of manufacture.

12-3.20B(4)–12-3.20B(9) Reserved

12-3.20B(10) Temporary Terminal Sections

Reserved

12-3.20C Construction

12-3.20C(1) General

Clean temporary barrier segments at time of installation and at least every 6 months thereafter.

Install the temporary barrier system based on the requirements shown in the following table:

Minimum Clear Area Width

Barrier	Configuration	Height differentials 3 feet or less (ft)	Height differentials greater than 3 ft up to 8 feet (ft)	Edge of deck or height differentials greater than 8 feet (ft)	Fixed objects, falsework members, or temporary supports[a] (ft)
12'-6" temporary concrete barrier with "J" hooks	Freestanding	3	4	8	7
	3 stakes per segment traffic side	1	1	2	3
	2 anchor bolts per segment traffic side	1	1	2	3
20-foot temporary concrete barrier with "J" hooks	Freestanding	3	4	8	7
	4 stakes per segment traffic side	1	1	2	3
	3 anchor bolts per segment traffic side	1	1	2	3
50-foot temporary steel barrier	Staked or anchored at both ends only	6	7	9	10
	Staked or anchored every 250 feet	5	6	8	9
	Staked or anchored every 33 feet	1	1	3	4
10-foot, 20-foot & 30-foot temporary concrete barrier with cross bolts	Freestanding	1	2	5	5
20-foot Type K temporary railing	Freestanding	2	3	8	7
	2 stakes or 2 anchor bolts per segment traffic side	1	1	3	4
	4 stakes or 4 anchor bolts per segment	N/A	N/A	3	3

[a]The minimum clear area width to a falsework or temporary support footing can be 2 feet less than the clear area width shown. Measure clear area width to the footing edge closest to traffic.

Stake temporary barrier systems when placed on an asphalt concrete surface.

Anchor temporary barrier systems when placed on a concrete surface. For bridge decks, confirm the anchor will not penetrate closer than 1-1/2 inches from the bottom of the deck before placement. When temporary barrier is not shown, request the Engineer to verify the bridge deck thickness.

Stake or anchor a minimum 20 feet of temporary concrete barrier at each end of the temporary barrier system. For:

1. Temporary concrete barrier with "J" hooks, place a minimum of 6 stakes or anchors at each end, 3 on each side.
2. Temporary concrete barrier with cross bolts, place a minimum of 6 stakes or anchors at each end, 3 on each side.
3. Type K temporary railing, place 4 stakes or anchors at each end, 2 on each side.

For installations on concrete surfaces, drill holes and bond threaded rods or dowels under section 51-1.03E(5). Do not drill the top of supporting beams or girders, bridge expansion joints, or drains.

Install stakes and anchor bolts so the heads do not project above the top of the temporary barrier pocket profile.

For the approach zone before the protected area, place a minimum:

1. 60 feet temporary barrier on facilities with a posted speed of 45 mph or less
2. 100 feet temporary barrier on facilities with a posted speed greater than 45 mph

Offset the approach end of a temporary barrier system a minimum of 15 feet from the edge of an open traffic lane, use the offset rate shown in the following table:

Temporary Barrier System Offset Rate

Posted speed (mph)	Rate[a]
0 to 45	10:1
46 to 60	15:1
61 to 70	20:1

[a]Rate is longitudinally to transversely with respect to the edge of the traveled way

If a 15-foot minimum offset cannot be achieved, offset the temporary barrier the maximum distance available and install an array of temporary crash cushion modules or an authorized temporary crash cushion system at the barrier approach end.

Install a reflector on the top or face of barrier segments placed within 10 feet of a traffic lane. Space reflectors at approximately 20-foot intervals. Apply adhesive for mounting the reflector under the reflector manufacturer's instructions.

Install a Type P marker panel complying with section 82 at:

1. Each end of a temporary barrier system placed adjacent to a two-lane, two-way highway
2. The end facing traffic for a temporary barrier system installed adjacent to a one-way roadbed
3. The end of the skew nearest the traveled way when a temporary barrier system is placed on a skew

Maintain a minimum height of 31-1/2 inches above surface for temporary barrier. For paving activities adjacent to temporary barrier, do not pave within 2 feet of the barrier segments unless authorized. For paving under the temporary barrier, remove and reset the barrier.

Remove temporary barrier systems when no longer required for the work. Remove stakes and anchor bolts so that minimal damage is done to surface.

After removing the temporary barrier systems:

1. Restore the area to its previous condition or construct it to its planned condition if temporary excavation or embankment was used to accommodate the temporary barrier.
2. Remove all threaded rods or dowels to a depth of at least 1 inch below the top of a concrete surface. Fill the resulting holes with mortar under section 51-1 except cure the mortar by the water method or by the curing compound method using curing compound no. 6.
3. Repair a damaged asphalt surface by providing a clean, smooth edge around the damaged area. Repair any heaving caused by stake removal to provide a uniform surface. Remove loose debris and use compressed air to clean out the stake hole. Comply with manufacturer’s requirements except fill the stake hole with grout to existing pavement elevation under section 51-1.

If the Engineer orders a lateral move of a temporary barrier system and repositioning is not shown, the lateral move is change order work except for work area access, clear area width compliance, or because of your means and methods to perform the work.

12-3.20C(2) Temporary Concrete Barriers

12-3.20C(2)(a) General

Before placing temporary concrete barrier on the job site and after each described relocation, paint the exposed surfaces of the segments with white paint complying with specifications for acrylic emulsion paint for exterior masonry.

Place and maintain the abutting ends of segments in alignment without substantial offset from each other.

Install temporary barrier systems with the last segment extending a minimum of 60 feet past the length of the protected area.

12-3.20C(2)(b) Temporary Concrete Barrier with "J" Hooks

Install a minimum 200 feet of temporary concrete barrier with "J" hooks.

Place the temporary barrier system on a concrete or asphalt concrete surface. The asphalt concrete surface must have a minimum 2 inches of asphalt concrete over 6 inches of compacted subbase.

Install two parallel temporary barrier systems, one for each direction of travel, when placed between two-way traffic. Maintain the minimum clear area as shown in the table titled "Minimum Clear Area Width" between the two systems. Maintain a minimum 1-foot set back distance.

12-3.20C(2)(c) Temporary Concrete Barrier with Cross Bolts

Install a minimum 210 feet of temporary concrete barrier with cross bolts.

Place the temporary barrier system on a concrete or asphalt concrete surface.

Do not stake or anchor down temporary barrier system, except for 20 feet at end of the barrier system.

Intermix segments of different lengths within a temporary barrier system when necessary.

For a temporary barrier system placed on a curved layout, maintain the minimum curve radius shown in the following table:

Minimum Curve Radius

Segment length (ft)	Curve radius (ft)
10	125
20	265
30	400

Maintain a minimum 1-foot set back distance when placed between two-way traffic.

12-3.20C(2)(d) Type K Temporary Railing

Do not install Type K temporary railing on projects advertised after December 31, 2026.

Install a minimum 160 feet of Type K temporary railing.

Excavate and backfill under section 19-3.

Do not compact earth fill placed behind Type K temporary railing in a curved layout.

Place temporary barrier system on a firm, stable surface. Grade the area to provide a uniform bearing surface throughout the entire length of the system.

Anchor or stake down the first and last segment and every other segment with four stakes as shown when placed between two-way traffic. Maintain a minimum 1-foot set back distance.

12-3.20C(2)(e)–12-3.20C(2)(g) Reserved

12-3.20C(3) Temporary Steel Barriers

12-3.20C(3)(a) General

Install temporary barrier system under manufacturer's instructions.

12-3.20C(3)(b) 50-Foot Temporary Steel Barriers

Use 50-foot temporary steel barriers with or without rubber pads.

Install a minimum 250 feet of 50-foot temporary steel barrier. The last segment must extend a minimum 25 feet past the length of the protected area.

Place the temporary barrier system on a concrete or asphalt concrete surface. Do not place the system on a dirt surface.

Anchor or stake down the first and last segment of the temporary barrier system.

Maintain a minimum radius of 800 feet for segments placed on a curved layout. For tighter curves down to a 250-foot radius, contact the manufacturer before installation and provide manufacturer's written recommendation for the installation.

Maintain a minimum 2-foot set back distance on both sides of a temporary barrier system used with traffic on both sides of the barrier.

12-3.20C(3)(c)–12-3.20C(3)(h) Reserved

12-3.20C(4)–12-3.20C(9) Reserved

12-3.20C(10) Temporary Terminal Sections

Reserved

12-3.20D Payment

The payment quantity for types of temporary barrier systems is paid under the lump sum item: Traffic Control System.

Replace section 12-3.22 with:

12-3.22 TEMPORARY CRASH CUSHION MODULES

12-3.22A General

Section 12-3.22 includes specifications for placing sand-filled temporary crash cushion modules in groupings or arrays.

12-3.22B Materials

Each sand-filled temporary crash cushion module must:

1. Be on the Authorized Material List for highway safety features
2. Be colored standard yellow with black lids
3. Be free from structural flaws and objectionable surface defects

Sand for filling modules must be:

1. Be commercial-quality, washed concrete sand
2. Contain no more than 7 percent water under California Test 226
3. Be cleaned when placed in the modules

12-3.22C Construction

When activities expose traffic to a fixed obstacle, protect the traffic from the obstacle with a temporary crash cushion. The crash cushion must be in place before opening to traffic the lanes adjacent to the obstacle.

Use the same type of crash cushion module for a single grouping or array. Do not use sand-filled temporary crash cushion module for a permanent installation.

Install temporary crash cushion under the manufacturer's instructions before:

1. Starting the activity requiring the crash cushion.
2. Opening to traffic the lanes adjacent to the protected obstacle.

Fill each sand-filled module with sand to capacity in pounds, under the manufacturer's instructions.

Securely fasten the top edge of a seal to the wall of the sand-filled module with a continuous strip of heavy-duty tape, when a seal is required.

Temporary crash cushion arrays must not encroach on the traveled way.

Maintain sand-filled temporary crash cushions in place at each location, including when work is not in progress. You may remove the crash cushions during the work shift for access to the work area if the exposed fixed obstacle is 15 feet or more from the nearest lane carrying traffic. Reset the crash cushion before the end of the work shift.

Repair damaged sand-filled temporary crash cushion modules immediately. Remove and replace any module damaged beyond repair. Repair and replacement of temporary crash cushion modules damaged by traffic are change order work.

You may place sand-filled temporary crash cushion modules on movable pallets or frames complying with the dimensions shown. The pallets or frames must provide a full-bearing base beneath the modules. Do not move the modules and supporting pallets or frames by sliding or skidding along the pavement or bridge deck.

Attach a Type R or Type P marker panel to the front of the temporary crash cushion if the closest point of the crash cushion array is within 12 feet of the traveled way. Firmly fasten the marker panel to the crash cushion with commercial quality hardware or by other authorized methods. Attach the Type R marker panel such that the top of the panel is 1 inch below the module lid. Attach the Type P marker panel such that the bottom of the panel rests upon the roadway surface or pallet surface when used.

A lateral move of a temporary crash cushion module is change order work if ordered and the repositioning is not shown.

Remove sand-filled temporary crash cushion modules, including sand, pallets or frames, and marker panels, at Contract acceptance.

12-3.22D Payment

The payment quantity for temporary crash cushion module is paid for under the lump sum item: Traffic Control System.

Add to the beginning of section 12-3.32C:

Place PCMSs at the locations shown and in advance of the 1st warning sign for each:

1. Stationary lane closure
2. Shoulder closure

Add between the 9th and 10th paragraphs of section 12-3.32C:

Start displaying the message on the sign 30 minutes before closing the lane or shoulder or when directed by the Engineer.

Replace section 12-3.32D with:

12-3.32D Payment

The payment of PCMSs is included in the lump sum item: Traffic Control System.

Add to section 12-4.02A(2):

special days: Martin Luther King Jr. Day, Cesar Chavez Day. AT&T Pro-Am, Monterey Week of Cars, US Open Pebble Beach, Superbike Speed Fest, IndyCar Grand Prix, Sea Otter Classic

Add to the end of section 12-4.02C(1):

Keep the full width of the traveled way open to traffic when no active construction activities are occurring in the traveled way or within 6 feet of the traveled way.

Keep the full width of the ramp traveled way open for use by traffic on designated holidays.

Replace section 12-4.02C(3)(f) with:

12-4.02C(3)(f) Closure Restrictions for Designated Holidays and Special Days

Closure restrictions for designated holidays and special days are shown in the following table:

Lane Closure Restrictions For Designated Holidays And Special Days											
Thu	Fri	Sat	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Mon
x	**H** xx	xx	xx	xxx							
	SD xx										
x	xx	**H** xx	xx	xxx							
		SD xx									
	xx	xx	**H** xx	xx	xxx						
			SD xx								
x	xx	xx	xx	**H** xx	xxx						
				SD xx	xxx						
				xx	**H** xx	xxx					
					SD xx						
					xx	**H** xx	xxx				
						SD xx					
						x	**H** xx	xxx			
					x	xx	**H*** xx	xx	xx	xx	xxx
							SD xx				

Legend:

	Refer to lane requirement charts.
x	The full width of the traveled way must be open for use by traffic after 1200.
xx	The full width of the traveled way must be open for use by traffic.
xxx	The full width of the traveled way must be open for use by traffic until 0800.
H	Designated holiday
H*	Thanksgiving Holiday-The full width of the traveled way must be open for use by traffic between Tuesday at 1200 until the following Monday at 0800.
SD	Special day

Replace *Reserved* in section 12-4.02C(3)(k) with:

Comply with the requirements for the conventional highway lane closures shown in the following chart:

Chart No. K-1
Conventional Highway Lane Requirements

County: Monterey	Route/Direction: 218/ EB+WB	Post Mile: L0.80/0.10

Closure limits: In the City of Seaside from Charles Avenue to Work Memorial Park

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	1	1	1	1	1	1	S	S	S	S	S	S	S	S	S	S	S	S	S	1	1	1	1	1	
Fri	1	1	1	1	1	1	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
Sat	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
Sun	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	1	1	1	1	1	

Legend:

1	Provide at least 1 through traffic lane open in the direction of travel.
S	Shoulder closure is allowed. (right/left)
	Work is allowed within the highway where a shoulder or lane closure is not required.

REMARKS:

Bicycle and pedestrian access in the work zone must be addressed.

Ten (10) minute maximum vehicle delay.

Property owners with driveways that are directly affected should be notified 5 days in advance.

EA: 1M5701
Date: 3/20/2023 Chart valid for one year prior to advertisement.

Replace *Reserved* in section 12-4.02C(3)(k) with:

Comply with the requirements for the conventional highway lane closures shown in the following chart:

Chart No. K-2
Conventional Highway Lane Requirements

County: Monterey	Route/Direction: 218/ EB+WB	Post Mile: 0.91/.97

Closure limits: In the City of Del Rey Oaks from Carlton Drive to Via Verde

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	R	R	R	R	R	R	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	R
Fri	R	R	R	R	R	R	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Sat	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Sun	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	R

Legend:

R	Provide at least 1 through traffic lane not less than 10 feet in width for use by both directions of travel. (Reversing Control)
S	Shoulder closure is allowed. (right/left)
	Work is allowed within the highway where a shoulder or lane closure is not required.

REMARKS:

Bicycle and pedestrian access in the work zone must be addressed.

Ten (10) minute maximum vehicle delay.

Property owners with driveways that are directly affected should be notified 5 days in advance.

EA: 1M5701
Date: 3/20/2023 Chart valid for one year prior to advertisement.

Replace *Reserved* in section 12-4.02C(3)(m) with:

Comply with the requirements for a local street shown in the following chart:

Chart No. M-1

Location: Seaside/Del Rey Oaks	Direction: EB+WB	

Closure limits: Local streets intersection Rte 218 between Del Monte Blvd and Fremont Street

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	C	C	C	C	C	C	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	C	C	C
Fri	C	C	C	C	C	C																			
Sat																									
Sun																							C	C	C

Legend:

C	Street may be closed.
S	Shoulder closure is allowed. (right)

REMARKS:

Ten (10) minute maximum vehicle delay.

Property owners with driveways that are directly affected should be notified 5 days in advance.

The full width of the traveled way must be open for use by traffic when construction activities are not actively in progress.

Must obtain concurrence from local agency

EA: 1M5701
Date: 3/20/2023 Chart valid for one year prior to advertisement.

Replace the 1st paragraph of section 12-4.02C(7)(a) with:

Control traffic using stationary closures, except you may use a moving closure during traffic striping and pavement marker placement using a bituminous adhesive. Do not use a moving lane closure when grinding for recessed striping and recessed markers.

Add to the end of section 12-4.02C(7)(b):

Except for one-way-reversing traffic-control lane closures, the maximum length of the work area inside a closure is 1 mile.

Not more than 1 stationary closure is allowed in each direction of travel at one time.

For a stationary one-way-reversing traffic-control lane closure, you may stop traffic in 1 direction for periods not to exceed 10 minutes. After each stoppage, all accumulated traffic for that direction must pass through the work zone before another stoppage is made.

The maximum length of a single stationary one-way-reversing traffic-control lane closure is 1 mile between flaggers.

Not more than 1 stationary one-way-reversing traffic-control lane closures will be allowed at one time.

Instruct bicyclists to join the traffic queue through the one-way-reversing traffic-control work zone.

You may use a pilot car to control traffic. If a pilot car is used to control traffic, the cones shown along the centerline are not required. Pilot cars must have cellular or radio contact with other pilot cars and personnel in the work zone. The maximum speed of the pilot cars convoying or controlling traffic through the traffic control zone is 25 mph. Pilot cars must only use traffic lanes open to traffic.

Replace section 12-4.02C(9)(c)(i) with:

12-4.02C(9)(c)(i) General

Provide additional flaggers for the lane requirement charts at the locations shown in the following table:

Chart number	Location	Location type			Additional flaggers required (number)
		Intersection	Side road	Commercial driveway	
K-2	Carlton Drive	X			1

Replace section 12-4.02C(12) with:

12-4.02C(12) Construction Work Zone Speed Limit Reduction

12-4.02C(12)(a) General

Section 12-4.02C(12) includes specifications for providing, installing, maintaining, and removing traffic control devices for reducing the speed limit for the construction work zones.

Speed limit reduction is limited to 10 mph from the posted speed limit in construction work zones unless a greater speed limit reduction is specified. Construction work zone speed limit reduction can either be required when construction activities are active in a closure as a temporary condition or 24 hours a day, 7 days a week based on the roadway conditions when specified.

Speed limit reduction for Route 218 is to be reduced from 45 mph to 35 mph. Place traffic control devices as shown for multiple speed limit reduction steps within traffic control system. Speed limits can be stepped down in 5 or 10 mph increments.

Temporary construction work zone speed limit reduction is required for lane closures when construction activities require workers to be present within the lane closures. Construction work zone speed limit reduction is not required for short duration closures of 1 hour or less or when the length of lane closure is 1/2 mile or less.

Construction work zone speed limit reduction is required 24 hours a day 7 days a week at the following locations when the roadway conditions listed are in effect because of construction activities:

Construction Work Zone Speed Limit Reduction 24 Hours A Day 7 Days A Week

Location no.	Route	Begin postmile/station	End postmile/station	Roadway condition
1	218	L0.8	0.1	Long Term Lane Closure No Shoulders

For divided highways, the construction speed limit reduction zone for 24 hours a day, 7 days a week applies only to the direction of travel where the roadway conditions require lower vehicle speeds.

12-4.02C(12)(b) Materials

For construction work zone speed limit reduction for 24 hours a day, 7 days a week, construction area signs must comply with the requirements for stationary-mounted signs in section 12-3.11. When the duration of construction work zone speed limit reduction for 24 hours a day, 7 days a week is 7 days or less, you may use portable signs that comply with the requirements for portable signs in section 12-3.11.

For temporary construction work zone speed limit reduction, signs must comply with the requirements for portable signs in section 12-3.11.

The PCMS must comply with section 12-3.32.

Radar feedback sign LED displays must have LED:

1. Character of at least 18 inches in height for freeways and expressways
2. Character of at least 14 inches in height for conventional highways
3. Character's width-to-height ratio from 0.7 to 1.0
4. Character's stroke width-to-height ratio of 0.2

Portable radar speed feedback sign must comply with section 12-3.37.

Portable radar speed feedback sign trailers must have a minimum of 9 cones placed on a taper in advance of the device and along the edge of shoulder or edge of the traveled way at 25-foot intervals to a point not less than 25 feet past the device.

Temporary radar speed feedback sign system must comply with the specifications for:

1. Temporary electrical system in section 87-20
2. Radar speed feedback sign system in section 87-14 except the LED character display must remain blank when no vehicles are detected or when the detected vehicle speed is 10 miles or less than the pre-set speed

12-4.02C(12)(c) Construction

Advise motorists of construction work zone speed limit reductions starting 14 days in advance of implementing the speed limit reduction using a PCMS displaying the alternating messages *Reduced Speed* and *Starting XX/XX/XX (Date)*.

When construction work zone speed limit reduction is in effect, the PCMS message must be *XX ZONE AHEAD* and *WILL BE ENFORCED*. Mount a 48-by-48-inch W3-5 XX "SPEED LIMIT" ahead symbol sign on the PCMS trailer.

Cover all existing speed limit signs while the construction work zone speed limit reduction is in effect. Remove covers when construction work zone speed limit reduction is no longer in effect. For construction work zone speed limit reduction for 24 hours a day, 7 days a week, you may remove the existing speed limit signs and replace the signs when the construction activities that required the 24 hours a day, 7 days a week speed limit reduction are completed.

For construction work zone speed limit reduction for 24 hours a day, 7 days a week, install temporary radar speed feedback systems. In addition to the temporary radar speed feedback system shown, place a portable radar speed feedback system 400 feet upstream of active work areas. Portable radar speed feedback system must include a R2-1 sign with G20-5aP "WORK ZONE" plaque.

For temporary construction work zone speed limit reduction for lane closures, install portable radar speed feedback system as shown. In addition to the portable radar speed feedback system shown, place a portable radar speed feedback system 400 feet upstream of active work areas. The portable radar speed feedback system must include a R2-1 sign with G20-5aP "WORK ZONE" plaque.

For on-ramps within the limits of a construction work zone speed limit reduction, place R2-1 signs with G20-5aP "WORK ZONE" plaque within 500 feet of entrance ramps. You may use the strap and saddle method for mounting these sign panels on the entrance ramp lighting standard at the merge point.

For freeway to freeway connector ramps, install signs and devices as shown for construction work zone speed limit reduction.

For expressways, place a R2-1 sign with G20-5aP "WORK ZONE" plaque approximately 500 feet downstream from intersections within the limits of a construction work zone speed limit reduction.

For conventional highways, place a R2-1 sign with G20-5aP "WORK ZONE" plaque approximately 500 feet downstream from major intersections within the limits of a construction work zone speed limit reduction.

Within the limits of a construction work zone speed limit reduction, place intermediate R2-1 signs with G20-5aP "WORK ZONE" plaque at intervals not exceeding three miles.

You may use variable speed limit signs where R2-1 signs are described.

For chip seal projects, place construction work zone speed limit reduction signs and devices as shown except place additional intermediate signs, W8-7 "LOOSE GRAVEL" sign, and a W13-1 (35) plaque every 2000 feet.

12-4.02C(12)(d) Payment

For construction work zone speed limit reduction for 24 hours a day, 7 days a week, signs are paid for as construction area signs, PCMS is paid for as portable changeable message sign, temporary radar speed feedback sign is paid for as temporary radar speed feedback sign system, and portable radar speed feedback sign is paid for as portable radar speed feedback sign systems. Covering and removing covers of existing speed limit signs are included in the price paid for construction area signs.

For construction work zone speed limit reduction only during lane closures, signs are included in the bid item for traffic control system, PCMS is paid for as portable changeable message sign, and portable radar speed feedback sign is paid for as portable radar speed feedback sign systems. Covering and uncovering existing speed limit signs for each lane closure are included in the price paid for traffic control system.

^^

13 WATER POLLUTION CONTROL

Add to the end of section 13-3.01A:

This project's risk level is 1.

Add between the 4th and 5th paragraphs of section 13-3.01C(2)(a):

The following RWQCBs will review the authorized SWPPP:

1. Region 3, Central Coast

Replace section 13-3.01D(2) with:

13-3.01D(2) Regulatory Requirements

Portion of project within Caltrans right-of-way will not be regulated under a project specific permit or RWQCB. Discharges of stormwater from the remaining portions of the job site must comply with the permit issued by the Region 3 RWQCB for National Pollutant Discharge Elimination System (NPDES) Permit Order No. 2012-0011 DWQ, Permit No. . CAS000004. The Region 3 RWQCB permit governs stormwater and nonstormwater discharges resulting from construction activities at the job site. The Region 3 RWQCB permit may be viewed at Transportation Agency for Monterey County offices at 55-B Plaza Circle, Salinas, CA.

Add between the 1st and 2nd paragraphs of section 13-4.03G:

Dewatering must comply with Order No. R1-2009-0045 adopted by the North Coast RWQCB (General NPDES Permit No. CA 0024902, Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region). For the permit, go to the North Coast RWQCB's website.

Dewatering must comply with Central Coast Regional Water Quality Control Board. For the permit, go to the Central Coast Regional Water Quality Control Board website.

Replace the 2nd sentence of the 1st paragraph of section 13-6.03C with:

The drainage inlet protection must be Type 1, Type 2, Type 3A, Type 4A, Type 4B or Type 5, as appropriate for the conditions around the drainage inlet.

^^

14 ENVIRONMENTAL STEWARDSHIP

Add to the end of section 14-1.02:

An ESA exists on this project.

Before starting job site activities, install orange silt fencing along the creek and orange exclusionary fencing around the trees to be protected and woodland area outside the project limits to protect the ESA and mark its boundaries.

More than one ESA exists on the job site. Use the management measures for the corresponding ESA shown in the following table:

ESA Management

Identification	Location	Management measures
1.	Arroyo Del Rey Creek	Orange silt fence
2.	Tree Protection Zone	Exclusionary fence, see below

Access to an ESA other than that described is prohibited.

Fence trees to enclose the Tree Protection Zone (leaving space for pedestrian entrance) prior to demolition, grubbing or grading. Fences shall be 6-foot chain link or equivalent as approved by Consulting Arborist. Fences are to remain until all grading and construction is completed.

During Construction

1. No grading, construction, demolition, or other work shall occur within the Tree Protection Zone. Any modifications must be approved and monitored by the Consulting Arborist.
2. Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the Consulting Arborist.
3. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
4. No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored with the Tree Protection Zone.
5. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not be construction personnel.

Add to the 1st paragraph of section 14-6.03A:

This project is within or near habitat for the regulated species shown in the following table:

Regulated Species

Palid Bats
Nongame migratory birds (non raptors)
Raptors and Owls

This project includes the sensitive habitats shown in the following table:

Sensitive Habitats

Arryo Del Rey Creek

Replace item 1 in the list in the 2nd paragraph of section 14-6.03A with:

1. Stop all work within a 50-foot radius of the discovery except as shown in the following table:

Regulated species	Protective radius (feet)
Raptors	250

Comply with the following biological resource information requirements:

1. During project construction, no soil or other construction materials shall be stored in or allowed to enter the Arroyo del Rey Creek channel. All stockpiled fill and other materials shall be kept at least 50 feet from the channel edges.

2. To the extent feasible, vegetation removal activities shall occur during the non-nesting season (September 1 to February 14). For any construction activities conducted during the nesting season (February 15 to August 31), a qualified biologist shall conduct a preconstruction nest survey of all trees and other potential nesting habitat within and adjacent to the work area no more than seven (7) days prior to the initiation of work. In addition to surveying the work area, the biologist shall survey all vegetation on the north bank of Arroyo del Rey Creek within 50 feet of the work area for passerine nests and scan all trees within 250 of the work area for raptor nests. The survey shall be conducted during the early morning (i.e., 0.5 hour before sunrise to 10:00 a.m.) when bird activity is highest. If the survey indicates the presence of nesting birds, the biologist shall determine an appropriately sized buffer around the nest in which no work would be allowed until the young have successfully fledged (or the nest has been abandoned). The size of the nest buffer shall be determined by the biologist and shall be based on the nesting species and its sensitivity to disturbance. In general, buffer sizes of up to 250 feet for raptors and 50 feet for other birds should suffice to prevent disturbance of active nests, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

Replace the list in the 2nd paragraph of section 14-6.03D(1) with:

1. Prior to the initiation of construction, a qualified biologist shall conduct environmental awareness training for project contractors. The training shall summarize the sensitive biological resources known to occur within the Arroyo del Rey Creek riparian corridor (e.g., riparian vegetation, steelhead, nesting birds) and include a review of environmental laws and avoidance and minimization measures being implemented to reduce or avoid impacts on such resources, including steelhead. After the training, the biologist will review the proposed silt fence alignment with the contractor to ensure it adequately captures any excess soil generated during minor grading activities

2. After silt fencing has been installed, the biologist will visit the work area on a weekly basis to confirm that the fence is still functional, make or arrange for any necessary repairs to the fence and document avoidance of aquatic habitat.

Replace section 14-6.05 with:

14-6.05 INVASIVE SPECIES CONTROL

Section 14-6.05 includes specifications for preventing the introduction and spread of invasive species to and from the job site.

Comply with section 13-4.03E(3).

At least 2 business days before using vehicles and equipment on the job site, submit a signed statement that the vehicles and equipment have been cleaned of soil, seeds, vegetative matter, and other such debris that may introduce or spread invasive species. The statement must include:

1. List of the vehicles and equipment with identifying numbers
2. Date of cleaning for each vehicle and piece of equipment
3. Description of the cleaning process
4. Measures to be taken to ensure the vehicles and equipment remain clean until operation at the job site
5. Verification that the equipment has not been operated in waters known to be infested by aquatic invasive species

Update the list of vehicles and equipment as needed.

Clean the following vehicles and equipment before operation at the job site:

1. Excavators
2. Loaders
3. Graders
4. Haul trucks
5. Water trucks
6. Cranes
7. Tractors
8. Trailers
9. Dump trucks
10. Waders

This project includes the sensitive areas shown in the following table:

Sensitive Habitat
Arroyo Del Rey Creek

Do not clean vehicles, equipment, or tools at locations near sensitive habitat or waterways at the job site. Clean vehicles and equipment every time before it enters or leaves a sensitive habitat. Within 50 ft, implement the following protection measures:

1. Before entering or exiting, pressure wash your vehicles and equipment:
   1.1. At a temperature of 140 degrees F
   1.2. With a minimum nozzle pressure of 2,500 psi
   1.3. With a minimum fan tip angle of 45 degrees
2. Thoroughly scrub personal work equipment and tools, such as boots, waders, hand tools, and any other equipment used in water at the job site, using a stiff-bristled brush to remove any organisms. Decontaminate the equipment by one of the following methods:
   2.1. Immerse the equipment in water at a temperature of 140 degrees F for at least 5 minutes. If necessary, weigh down the equipment to keep it immersed in the water.
   2.2. Freeze the equipment to a temperature of 32 degrees F or colder for at least 8 hours.
   2.3. Thoroughly dry the equipment in a weed-free area for at least 48 hours.
3. Clean personal work equipment, and tools over drip pans or containment mats at the job site. Collect and contain the wastewater. Dispose of the wastewater at a waste management facility.

Replace section 14-7.04 with:

14-7.04 PALEONTOLOGICAL RESOURCES MITIGATION

Section 14-7.04 includes specifications for coordinating and working with a paleontological resources mitigation team provided by the Department.

The Department performs paleontological resources mitigation during construction activities involving subsurface disturbance under Pub Res Code § 5097.5 and the California Environmental Quality Act (CEQA). Do not start subsurface-disturbing activities until the paleontological mitigation team, consisting of a principal paleontologist and paleontological monitors, is present at the job site.

Fossils within or excavated from the highway remain the property of the Department.

Submit a schedule of subsurface-disturbing activities at least 15 days before starting job site activities. Submit an updated schedule at least 3 business days before implementing any changes.

Attend a preconstruction meeting with the paleontological resources mitigation team and the Engineer to establish procedures for coordination, cooperation, and worker safety during mitigation activities.

Within the project limits, do not perform subsurface-disturbing activities unless authorized. Notify the Engineer 15 days before starting subsurface-disturbing activities.

The paleontological mitigation team monitors and salvages fossils discovered during excavation.

The Engineer may order you to:

1. Divert or stop construction activities in the vicinity of fossils
2. Avoid disturbing an area pending the removal of fossils
3. Perform additional excavation
4. Modify an excavation to facilitate in-place stabilization of fossils by the mitigation team

Additional excavation and modification of an excavation to facilitate in-place stabilization of fossils if ordered are change order work.

Replace the 2nd paragraph of section 14-8.02 with:

Noise from job site activities must not exceed 85 dBA Lmax at 50 feet from the job site activity from 8:00 p.m. to 7:00 a.m. each day, and the noise level produced by the traffic on or by the construction activity can't exceed 52 dBA Leq interior noise levels in school facilities as defined under St & Hwy Code § 216

All equipment shall have sound-control devices that are no less effective than those provided on the original equipment. No equipment shall have an unmuffled exhaust.

All equipment shall be properly maintained and operated. The Contractor shall implement appropriate additional measures to reduce noise when adjacent to receptor locations including but not limited to, changing the location of stationary construction equipment, using temporary noise barriers, and placing noise blankets around pile drivers.

The Contractor shall notify adjacent residents in advance of construction of the work hours and scheduled work.

Within the City of Del Rey Oaks and City of Seaside right of way, limit construction activity as follows:

1. Limit construction activities throughout the entire duration of the project to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday

2. Do not start-up machines or equipment before 8:00 a.m., Monday through Friday

3 Do not deliver materials or equipment before 7:30 a.m. or past 5:00 p.m., Monday through Friday

4. Do not clean machines or equipment past 6:00 p.m., Monday through Friday

5. Do not service equipment past 6:45 p.m., Monday through Friday

6. No work shall be allowed on Saturdays, Sundays or legal holidays.

A Noise Control Plan shall be required of the construction contractor. The Plan would describe abatement measures to be utilized to comply with the noise regulations. The Plan shall also include a noise monitoring program to be implemented by the construction contractor. Special attention shall be given to minimizing noise effects near sensitive receptors.

You may request to perform work during the time restrictions listed above through the Engineer and secure a permit from the City of Del Rey Oaks or the City of Seaside before beginning work within the restricted times.

Pile driving or drilling activities shall not be permitted at night. During all pile driving or drilling activities the construction contractor shall employ a combination of the following noise-reducing measures to the extent necessary to reduce noise levels to 85 dBA or below at 50 feet from the project site. Noise monitoring shall occur once daily during normal pile driving or drilling activities to confirm that the standard has been met. If the noise level exceeds 85 dBA, the monitor shall notify the construction contractor, who shall cease pile driving or drilling until additional measures are implemented to reduce noise levels to 85 dBA, with subsequent monitoring.

1. Equipment with the potential to exceed 85 dBA at 50 feet shall be located as far from nearby noise-sensitive receptors as possible.
2. Any construction equipment that would be required during pile driving or drilling activity shall be properly maintained and have manufacturer-approved or recommended sound abatement means on air intakes, combustion exhausts, heat dissipation vents, and the interior surfaces of engine hoods and power train enclosures.
3. If feasible and determined to be an effective option, install temporary noise barriers around the perimeter of pile driving or drilling equipment operation to minimize construction noise.

In addition to these noise-reducing measures, the construction contractor shall provide written notification to residences within 700 feet of pile driving or drilling activities at least three weeks prior to all pile driving or drilling activities. The notification shall inform residents of the estimated start date, times and duration of pile driving or drilling activities.

Add to section 14-8.02:

Submit a noise control plan (NCP) to minimize construction noise including back up alarm.

Include the following information in the NCP:

1. List of the locations and construction activities to be monitored
2. Description of the construction activities and anticipated noise levels at these locations
3. Operating sound levels of construction equipment at specified distances and locations
4. Sound control measures to maintain noise levels within specified limits
5. Corrective actions if specified sound levels are exceeded
6. List of sound level meters and calibrators with current calibration certifications
7. Names, qualifications, and resumes of:
   7.1. Person who prepared NCP
   7.2. Personnel who will perform noise monitoring
8. Notification letter for residents that includes:
   8.1 Project location
   8.2 Project start and completion date
   8.3 Project contact person information
   8.4 Activities and duration of activities that could contribute to an increase in noise levels in the area

The NCP must be prepared by a qualified person that meets one of the following requirements:

1. Board Certified by the Institute of Noise Control Engineering of the USA with 2 years of noise control experience
2. Registered Civil engineer with 3 years of full-time noise control experience
3. Bachelor’s or higher degree from an ABET accredited institution of higher education in a relevant field of engineering, environmental science, or earth science and 5 years of full-time noise control experience
4. Bachelor’s or higher degree from an ABET accredited institution of higher education and 10 years of full-time noise control experience

Conduct noise monitoring by a person with at least 2 years of experience in conducting field noise measurements. Submit the qualifications of each of the individuals who will be performing the noise monitoring.

Fourteen days before starting construction activities described in the NCP, notify:

1. The Engineer
2. Entities or residents within 500 feet from the job site activity with the NCP letter delivered in person

Monitor noise:

1. The 1st time each activity described in the NCP is performed and when equipment or activities have changed from the authorized NCP
2. Each time noise complaint is received

Measure Noise levels with a Type 1 or Type 2 sound level meter. The sound level meter must:

1. Be calibrated and certified by the manufacturer or an independent acoustical laboratory
2. Be capable of taking A-weighted measurements and have slow response settings
3. Have a microphone fitted with a windscreen
4. Be recalibrated annually by the manufacturer or an independent NIST certified acoustical laboratory

Submit a noise monitoring report within 24 hours of completing noise monitoring for each of the activities. The report must include A-weighted noise levels, measurement location, types of noise measuring equipment including model number and identification number, time of day, temperature and wind speed.

Conduct noise monitoring to investigate noise complaints that are attributed to a particular construction operation. If the operation exceeds the sound level submit a list of authorized contingency measures from the NCP that will be implemented.

The noise level requirements apply to the equipment on the job or related to the job, including impact pile driver, trucks, transit mixers or transient equipment used on the project.

Furnish 1 Type 1 or Type 2 sound-level meter and 1 acoustic calibrator to the Department for use until contract acceptance to monitor noise.

The sound-level meter must:

1. Be calibrated and certified by the manufacturer or an independent acoustical laboratory before delivery to the Department
2. Be capable of taking A-weighted measurements and have slow response settings
3. Have a microphone fitted with a windscreen
4. Be recalibrated annually by the manufacturer or an independent acoustical laboratory

Provide noise monitoring equipment training by the authorized noise monitor to 1 Department employee.

The Department returns the equipment to you at contract acceptance.

Replace *at least once a week* in the 2nd sentence of the 3rd paragraph of section 14-10.01 with:

daily

Add after the 1st paragraph of section 14-11.04:

The following best management practices would be implemented during project construction to comply with the Monterey Bay Air Resources District's Rule 402 (Nuisance) and CEQA Guidelines and to reduce emissions:

Prohibit all grading activities during periods of high wind (over 15 mph);

Active construction areas will be watered, as needed and at least twice daily, based on the activity, soil and wind exposure;

Apply chemical soil stabilizers on inactive construction areas (disturbed lands unused for four consecutive days);

Apply native hydro-seed or non-toxic binders to exposed areas after cut/fill operations;

Maintain at least 2-foot freeboard in haul trucks, and cover all trucks hauling dirt, sand, or other loose materials;

Plant native vegetative ground cover in disturbed areas as soon as possible, in coordination with mitigation planting requirements identified in this EIR for biological resources;

Cover inactive storage piles;

Use alternative fuels (e.g., compressed natural gas, propane, electricity, biofuel) to operate construction equipment, when feasible; and

In undisturbed areas as much as practical, limit the construction zone to a 20-foot corridor to minimize impacts to habitat and wildlife.

Add after the 2nd paragraph of section 14-11.12A:

This project includes removal of Yellow Thermoplastic Traffic Stripe that will produce hazardous waste residue.

Add after the 1st paragraph of 14-11.12E:

After the Engineer accepts the analytical test results, dispose of yellow thermoplastic and yellow paint hazardous waste residue at a Class 1 disposal facility located in California 60 days after accumulating 220 lb of residue.

If less than 220 lb of hazardous waste residue and dust is generated in total, dispose of it within 60 days after the start of accumulation of the residue.

^^

16 TEMPORARY FACILITIES

Replace Reserved in section 16-3 with:

16-3 TEMPORARY RESIDENT ENGINEER'S OFFICE

16-3.01A General

Section 16-3 includes general specifications for furnishing, installing, maintaining, and removing a Resident Engineer office and associated services for the exclusive use of the Engineer.

You must provide the office. You must provide the office beginning 14 days before project work begins and ending 21 days after final acceptance. Facilities remain the property of the Contractor upon completion of the contract. The Contractor must perform all site work to set up and remove the office. Provide weatherproof buildings or trailers in good condition. Facilities and their location are subject to approval and must be located within 10 miles of the project site.

The Temporary Resident Engineer's office must be safe, sanitary and include the appropriate electrical service, internet service, potable water supply, toilet accommodations and waste disposal services. The Contractor must pay sanitary and utility bills (electricity and water) promptly. The Contractor must pay the cost for all connection and disconnection fees for electricity, phone, water service, sanitary service, fax and high-speed internet, as applies. The Contractor must conform to all applicable ordinances, safety codes, and regulations.

16-3.01B Materials

Not Used

16-3.01C Construction

You must supply a Temporary Resident Engineer's office with the following minimum requirements:

1. 800 square feet floor space, with separate room for Resident Engineer's office
2. Locking outside door, deadbolt with keys
3. Alarm system with 24-hour monitoring service
4. Slip proof tread and handrails on steps as required
5. ADA compliant access
6. Windows with locks, total area 30 square fee
7. 7-foot ceiling height
8. 12 square feet of shelf space, minimum 12-inch depth
9. Electrical lighting
10. Heat and air conditioning able to maintain 72 degrees Fahrenheit
11. Adequate electrical outlets and surge protectors
12. Adequate electricity (120-volts, 60 cycle)
13. Adequate potable water supply
14. Adequate sanitary facilities
15. Parking for 4 vehicles (min)
16. Janitorial services

The Contractor must furnish the office at a minimum with the following:

1 2 Tables, 30-inch wide, 8-feet long and 30-inch high
2 1 File cabinet, 4-drawer, fire resistant metal with lock and keys
3 3 Desks, 12 square feet minimum each
4 3 Desk lamps
5 4 Office chairs and 6 folding chairs
6 1, 5 shelf bookcase, 3-feet wide x 1-foot deep x 6-feet high minimum
7 1 Fire extinguisher
8 1 Refrigerator, 10 cubic feet
9 1 Microwave Oven
10 1 Phone Line
11 1 Fully serviced Copy Machine (with color, 11x17, scanning and email capabilities), with necessary paper and cartridges.
12 1 Commercial grade First Aid Kit
13 High speed internet, with secured "wifi" connectivity

The Temporary Resident Engineer's office must be reasonably secure and must be enclosed by a 6-foot-high chain link fence with a gate around the building and parking area. The Temporary Resident Engineer's office may be located within the project storage area if it is similarly secured.

All equipment furnished must be of standard quality and like new.

The Temporary Resident Engineer's office and related facilities must be supplied and maintained by the Contractor throughout the construction period, including sewage holding tank, copy machine, and drinking water, and must be removed from the project site when, and as, directed.

16-3.01D Payment

Payments for Temporary Resident Engineer's office will be made as follows:

1. A prorated portion of the bid price based on working days elapsed, up to 75 percent of the contract item for furnish field office will be included in the monthly progress estimate.
2. After acceptance of the contract in conformance with the provisions in Section 5-1.46, payment for the remaining percentage of the contract item price paid for furnish field office will be made in conformance with the provisions in Section 9-1.17B, "Payment Before Final Estimate".

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DIVISION III EARTHWORK AND LANDSCAPE

17 GENERAL

Clear all construction areas above original ground of (1) all vegetation such as trees, down trees, fallen branches, logs, upturned stumps, roots of downed trees, brush, grass, and weeds to limits specified in 17-2.03A and (2) other objectionable material including concrete, masonry, debris refuse, and other unsightly objects encountered within 20 feet of the limits of grading or to the right of way, whichever is closer.

^^

19 EARTHWORK

Replace the 2nd, 3rd, and 4th paragraphs of section 19-2.03B with:

Dispose of surplus material. Ensure enough material is available to complete the embankments before disposing of it.

Add between the 8th and 9th paragraphs of section 19-2.03G:

Roughen embankment slopes to receive erosion control materials by either track-walking or rolling with a sheepsfoot roller. Track-walk slopes by running track-mounted equipment perpendicular to the slope contours.

Roughen excavation slopes and flat surfaces to receive erosion control materials by scarifying to a depth of 6 inches.

Add to the end of section 19-3.01A:

Structure backfill includes constructing the geocomposite drain system. The systems must comply with section 68-7.

Add to the end of section 19-3.01A:

Structure backfill includes the placement and compaction of Class 2 AB as specified in the Bridge Foundation Report as shown.

Add to the paragraph in section 19-5.03C:

At the following locations, compact earth to a relative compaction of at least 90 percent for a depth of at least 2.5 feet below the finished grade and a width of the traveled way plus 3 feet on each side:

1. Entire trail length. Designed as non-traffic area.

Unless otherwise authorized, compact material without adding water.

^^

20 LANDSCAPE

Add to section 20-1.02C:

Select herbicides from the following table:

Herbicides

Herbicide name	Herbicide type					
	Preemergent (granular)	Preemergent (non granular)	Post-emergent	Selective	Non-selective	Systemic
Aminocyclopyrachlor	--	X	--	--	X	X
Aminopyralid	--	--	--	X	--	--
Chlorsulfuron	--	--	--	X	--	--
Clopyralid	--	--	--	--	X	--
Diquat dibromide	--	--	--	--	X	--
Dithiopyr	--	X	--	--	--	--
Fluazifop-P-Butyl	--	--	--	X	--	--
Glyphosate	--	--	X	--	--	X
Imazapyr	--	--	--	--	X	--
Indaziflam	--	X	--	--	X	X
Isoxaben	--	X	--	--	--	--
Oryzalin	--	X	--	--	--	--
Oxadiazon	X	X	--	--	--	X
Oxyfluorfen	--	X	X	--	--	--
Pendimethalin	X	X	X	--	--	--
Rimsulfuron	--	--	--	X	--	--
Sethoxydim	--	--	X	X	--	--
Sulfentrazone	--	--	--	--	X	--
Sulfometuron-methyl	--	--	--	--	X	--
Sulfosulfuron	--	--	--	--	X	--
Triclopyr	--	--	--	--	--	X

Add to section 20-2.06B(2)(d):

The 2-wire irrigation controller shall be per plans, or approved equal.

Replace item 1 in the list in the paragraph of section 20-5.03D(2)(a) with:

1. Uniform tan color

Replace section 20-5.05 with:

20-5.05 SITE FURNISHINGS

20-5.05A General

Section 20-5.05 includes specifications for installing site furnishings.

The components and locations of the site furnishings are shown on the project plans.

20-5.05B Materials

Materials are per plans and details

20-5.05C Construction

Install all furnishings per plans and manufacturer’s recommendations

20-5.05D Payment

Not Used

Replace section 20-5.06 with:

20-5.06 DECORATIVE BOULDERS

20-5.06A General

20-5.06A(1) Summary

Section 20-5.06 includes specifications for placing decorative boulders.

20-5.06A(2) Definitions

Not Used

20-5.06A(3) Submittals

At least 30 days before delivery to the job site, submit the name, address, and telephone number of the boulder source. Submit digital photographs of the front, back, and side of each boulder.

20-5.06A(4) Quality Assurance

Not Used

20-5.06B Materials

Notify the Engineer at least 5 business days before delivery of the boulders to the job site.

Boulders must:

1. Be clean
2. Have no sharp edges, or cracks
3. Obtained from a single source
4. Be covered at least in 20 percent with moss or lichen
5. Be the color blend of tan/brown/black
6. Be composed of volcanic rock native to California
7. Not have blast holes

Boulders must comply with the minimum requirements shown in the following table for each axis measurement:

Diameter Requirements

Diameter (feet)	Quantity
1 to 2	25
2 to 3	13
3 to 4	12

Boulders may show surface chipping or scaring if the boulder is placed such that the chipped or scarred areas are not visible.

Anti-graffiti coating must comply with section 78-4.06.

20-5.06C Construction

Mark proposed locations for placement of boulders. Final location and orientation of the boulder must be authorized at least 5 business days prior to installation. Apply anti-graffiti coating to all exposed surfaces of the boulder. Place surplus excavated material throughout the job site under section 19-2.03B. Compact subgrade under the boulder to not less than 90 percent relative compaction.

Place boulder as shown on plans and details and as directed by engineer. Backfill and tamp remaining soil voids around the boulder until finished grade is level with the surrounding area. If backfill area has settled, refill with additional soil and tamp.

20-5.06D Payment

Not Used

Add section 20-11 with:

20-11 BIORETENTION

20-11A General

20-11A(1) Summary

Section 20-11 includes specifications for constructing bioretention areas, to the lines, grades, and dimensions shown on the plans in accordance with these special provisions. Bioretention areas shall include “structural soil”, a top layer of mulch, underdrains, moisture barriers, conforming to the City Standards, the Standard Specifications, and these specialspecifications for placing decorative boulders.

Refer to related special provisions for concrete structures (e.g. drop inlets, concrete weirs), storm drain pipe and other appurtenances to the bioretention areas.

20-11A(2) Definitions

Not Used

20-11A(3) Submittals

Product Data: Submit manufacturer’s product data and installation instruction. Include required substrate preparation, list of materials, application rate/testing and percolation rates.

Certifications: Manufacturer shall submit a letter of certifications that the products meet or exceeds all physical property, endurance, performance and packaging requirements. Submittals for Bioretention Soil: Tests must be conducted within 120 days prior to the delivery date of the bioretention soil to the project site.
Batch-specific test results and certification will be required for projects installing more than 100 cubic yards of bioretention soil.

The contractor must submit the following for approval:

1. A sample of mixed bioretention soil.
2. Grain size analysis results of the sand component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
3. Grain size analysis results of the sandy loam component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
4. Grain size analysis results of compost component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
5. Agricultural soil analysis of results for the Bioretention Soil.
6. Provide the following information about the testing laboratory(ies) name of laboratory(ies) including
   a) contact person(s)
   b) address(es)
   c) phone contact(s)

20-11A(4) Quality Assurance

Not Used

20-11B Materials

A. Bioretention soil shall achieve an initial infiltration rate of at least 8 inch per hour or no more than 20 inches per hour “insitu” and a long-term, in-place infiltration rate of at least 5 inches per hour. Bioretention soil shall also support vigorous plant growth. Bioretention Soil shall be a mixture of fine sand, and compost, measured on a volume basis:

   65% Sand
   20% Sandy Loam
   15% Compost

B. Sand shall be free of wood, waste, coating such as clay, stone dust, carbonate, etc., or any other deleterious material. All aggregate passing the No. 200 sieve size shall be non-plastic.

   Sand for Bioretention Soil shall be analyzed by an accredited lab using #200, #100, #40, #30, #16. #8, #4, and 3/8 inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)
3/8 inch	100
No. 4	90-100
No. 8	70-100
No. 16	40-95
No. 30	15-70
No. 40	5-55
No. 100	0-15
No. 200	0-5

Note: all sands shall consist of natural sand, manufactured sand, or a combination thereof.

C. Sandy loam for Bioretention Soil shall be free of wood, waste, coating such as stone dust, carbonate, etc., or any other deleterious material. All aggregate passing the No. 200 sieve size shall be non-plastic.

Sandy loam soil should comply with the following specifications on USDA soil textural classification scheme by weight:

a. 50-74% sand
b. 11-48% silt
c. 2-15% clay

Note: all sandy loam shall consist of natural sand, manufactured sand or a combination thereof.

D. Compost for Bioretention Soil shall be a well decomposed, stable, weed free organic matter source derived from waste materials including yard debris, wood wastes or other organic materials. Compost shall have a dark brown color and a soil like odor. Compost exhibiting a sour or putrid smell, containing recognizable grass or leaves, or is hot (120F) upon delivery or rewetting is not acceptable. Compost shall be produced at a facility inspected and regulated by the Local Enforcement Agency for CalRecycle. The past 3 inspection reports shall be submitted verifying compliance with Title14 requirements of the Process to Further Reduce Pathogens (PFRP), Fecal coliform and Salmonella testing and pathogen and EPA, 40 CFR 503 regulations.

Composite Quality Analysis:

Property	Method	Requirement
pH, Units	Saturation Paste	6 to 8.5
EC, dS/m	Saturation Extract	0 to 10
Boron, ppm	Saturation Extract	less than 2.5
Moisture content, %	Gravimetric	30 to 60
Bulk Density, lbs/cubic yard		500 to 1100
Organic Matter, % of Dry Wieght	Loss on Ignition	35% to 75%
Carbon to Nitrogen Ratio		15:1 to 25:1
Maturity	Solvita	5 or above
Stability	Solvita	5 or above
Particle Size	Sieve Analysis	
Pass 1/2 inch sieve		≥80%
Pass #200 sieve		max 5%
503C Metals	Title 14	
Arsenic (As)		20
Cadmium (Cd)		15
Chromium (Cr)		100
Copper (Cu)		150
Lead (Pb)		300
Mercury (Hg)		10
Nickel (Ni)		100
Selenium (Se)		30
Zinc (Zn)		300
Pathogen		
Salmonella	Title 14	< 3 MPN per 4 gms
Fecal Coliform		<1000 MPN per 1 gm
Physical contaminants		

Plastic Metal and Glass, %> 4mm	% by Weight	< 1
Sharps, % > 4mm	% by Weight	0

E. Bioretention Soil shall be free of roots, clods, and/or stones larger than 1-inch in the greatest dimension, pockets of coarse sand, noxious weeds, sticks, lumber, brush and other litter. It shall not be infested with nematodes, or undesirable disease-causing organisms such as insects and plant pathogens. Bioretention soil mix shall be friable and have sufficient structure in order to give good tilth and aeration to the soil.

Gradation limits – The definition of the soil should be the following USDA classification scheme by weight:

Sand 85-92%
Silt 14% maximum
Clay 5% maximum

Permeability Rate - Hydraulic conductivity rate shall be not less the 8 inch per hour nor more than 20 inches per hour when tested in accordance with USDA Handbook Number 60, method 34b or other approved methods.

Analysis for pH, salinity and nutrient levels shall be submitted for approval prior to acceptance. Nutrient tests should include the testing laboratory recommendations for supplemental additions to the soil as calculated by the amount of material to be added per volume of soil for the type of plants to be grown in the soil.

Property	**Method**	**Requirement**
pH, Units	Saturation Paste	6.0 to 8.0
EC, dS/m	Saturation Extract	0.5 to 2.5
Boron, ppm	Saturation Extract	less than 2.5
Chloride, ppm	Saturation Extract	less than 150
Sodium Adsorption Ratio		less than 3.0
Carbon to Nitrogen Ratio		10 to 20
Organic Matter, % of Dry Weight	Loss on Ignition	1.5 to 5
Extractable Nutrients, dry weight basis	Ammonium Bicarbonate/DPTA Extraction	
phosphorus, ppm		10 to 40
potassium, ppm		100 to 200
iron, ppm		24 to 35
manganese, ppm		0.6 to 6
zinc, ppm		1 to 8
copper, ppm		0.3 to 5
magnesium, ppm		50 to 150
sodium, ppm		0 to 100
sulfur, ppm		25 to 500
molybdenum, ppm		0.1 to 2
aluminum, ppm		less than 3.0

Bioretention Soil shall be analyzed by an accredited lab using #200, 1/4 inch, 1/2 inch, and 1 inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)
1 inch	99-100
1/2 inch	90-100
1/4 inch	40-90
No. 200	Less than 5%

20-11C Construction

A. Imported backfill material for the bioretention zones should be placed in a relatively loose condition, no rolling or other heavy equipment, to promote the planned infiltration of water, through the bioretention soil mix layer.

B. Bioretention soil shall be installed in six (6) to twelve (12) inch lifts and lightly watered to provide settlement and natural compaction. No mechanical compaction is allowed. After natural compaction has been completed, add, if needed, additional bioretention soil to proposed finish grade as indicated on the plans.

C. Rake bioretention soil as needed to level out.

D. Vehicular traffic, construction equipment shall not drive-on, move onto, or disturb the bioretention soil once placed and water compacted.

E. The geotechnical engineer shall perform at least one percolation test per bioretention basin/swale in accordance with the County of San Diego Department of Environment Health Percolation Testing Criteria or other approved methods “in situ” prior to planting the Bioretention area (the engineer of work may require more than one in situ test depending on size of bioretention area). “In situ” percolation test(s) shall have an initial rate of at least 8-10 inches per hour to insure a long term infiltration rate of at least 5 inches per hour. If the percolation rate does not meet at least 8-10 inches per hour, the contractor shall provide and submit corrective action to the geotechnical engineer for approval, such as rototilling or hand cultivation to improve the percolation rate. Once the approved corrections are determined, the contractor will perform the required corrective action to improve the percolation rate and re-test at his expense.

F. Erosion and Sediment Control practices during construction shall be employed to protect the long-term functionality of the bioretention basin/swale. The following practices shall be followed for this reason:

1. Provide erosion control in the contributing drainage areas to the facility and stabilize upslope areas.
2. Facilities should not be used as sediment control facilities, unless installation of all bioretention-related materials are withheld towards the end of construction allowing the temporary use of the location as a sediment control facility, and appropriate excavation of sediment is provided prior to installation of bioretention materials.

G. A two-inch layer of well-aged shredded hardwood mulch shall be installed on the surface of the bioretention soil if planting of container stock is installed (i.e. - no hydroseeding is to be installed), which will also help reduce foot compaction of the bioretention soil. Alternative “non-floating” mulch may be used if specified by the landscape architect. Bark or wood chip mulch may be used on the side slopes of basins/swales above the maximum water line, if specified by the landscape architect.

H. If hydroseeding is to be installed on the surface of the bioretention soil, no stabilized matrix shall be used in the hydroseed components or mix.

20-11D Payment

Not Used

^^

21 EROSION CONTROL

Add to section 21-2.02P:

Straw must be certified weed free from the harvest site by the local County Agricultural Commission or the Department of Food and Agriculture.

^^

DIVISION V SURFACINGS AND PAVEMENTS

37 SEAL COATS

Add to section 37-3.01B(2):

Aggregate for Slurry Seal must be Type II.

Replace the 4th paragraph of section 37-3.01C(3)(a) with:

Use a continuous self-loading mixing machine except you may use truck mounted mixer spreaders on any of the following:

1. Radii
2. Side streets
3. Gore areas
4. Areas requiring hand work

^^

39 ASPHALT CONCRETE

Replace the 2nd paragraph of section 39-2.02A(1) with:

Produce Type A HMA using a WMA additive technology.

Replace *Reserved* in section 39-2.02B(3) with:

The grade of asphalt binder for Type A HMA must be PG 64-15.

For Type A HMA using RAP substitution of greater than 15 percent of the aggregate blend, the virgin binder grade must comply with the PG binder grade specified above with 6 degrees C reduction in the upper and lower temperature classification.

For Type A HMA using RAP substitution of 15 percent or less of the aggregate blend, the grade of the virgin binder must comply with the PG binder grade specified above.

^^

DIVISION VI STRUCTURES

48 TEMPORARY STRUCTURES

Replace section 48-7 with:

48-7 TEMPORARY SHORING (EXCAVATION)

48-7.01 GENERAL

48-7.01A Summary

Section 48-7 includes specifications for designing, constructing, maintaining, and removing temporary earth retaining structures.

48-7.01B SUBMITTALS

48-7.01B(1) Work Plan

Submit a temporary earth retaining structures work plan.

At a minimum, include the following:

1. 4 sets of shop drawings
2. 2 copies of design calculations

Allow 10 days for the Engineer's review. The Engineer provides comments and specifies the date when the review stopped if revisions are required.

Resubmit a revised temporary shoring work plan within 10 days of receiving the Engineer's comments. Allow 10 days for the Engineer's review of the revised plan.

Upon authorization, submit 4 additional sets of drawings and 2 additional copies of the design calculations.

Temporary earth retaining structures work plan must comply with the following:

1. Details of erection and removal activities.
2. Methods and sequences of installation and removal, including equipment.
3. Provisions for complying with current Cal/OSHA requirements.
4. Design calculations that include stresses and deflections in load carrying members.
5. Drawings must be either 11 in x 17 in, or 22 in x 34 in in size.
6. Drawings and calculation sheets must include the project name.
7. Drawings and calculation sheets must include design firm's name, address, and phone number.
8. Each sheet numbered in the lower right hand corner and contain a blank space in the upper right hand corner for future sheet numbers.

Verify the existing ground elevations at the site before preparing the temporary earth retaining structures work plan.

Provide information for the proper construction of the temporary earth retaining structures, including existing ground line at the face of the wall as verified at the site and any required revisions or additions to other facilities. Supplement calculations as necessary for particular installations. Drawings and calculations must be stamped and signed by an engineer who is registered as a Civil Engineer in the State of California.

Do not construct temporary earth retaining structures until authorized.

You are responsible for the design, construction, maintenance, and removal of the temporary earth retaining structures.

48-7.02 QUALITY CONTROL AND ASSURANCE

48-7.02A Design Criteria

Design of temporary earth retaining structures must be in accordance with Caltrans Trenching and Shoring Manual.

48-7.02B Materials

Not Used

48-7.03 CONSTRUCTION

Construct the wall to the lines and grades shown.

When the Engineer determines that the temporary earth retaining structure is no longer required, you may remove the temporary earth retaining structure.

Backfilling voids created during removal must comply with section 19-3.02D.

Dispose of all temporary earth retaining structure material.

48-7.04 PAYMENT

Not Used

^^

49 PILING

Add to section 49-2.01A(3)(a):

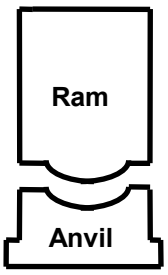
Before installing driven piles, submit a Pile and Driving Data Form for each pile type for each of the support locations shown in the following table:

Bridge	Pile type	Support location
FORTAG Undercrossing at SR 218	Class 200 Alt “W”	Abutment 1
FORTAG Undercrossing at SR 218	Class 200 Alt “W”	Abutment 2

CALIFORNIA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION LABORATORY

PILE AND DRIVING DATA FORM

Structure Name :_____ Contract No.:_____
_____ Project:_____
Structure No.:_____ Pile Driving Contractor or
Dist./Co./Rte./Post Mi:_____ Subcontractor_____(Pile Driven By)



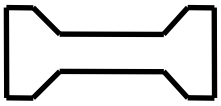
Hammer

Manufacturer:_____ Model:_____
Type:_____Serial No.:_____
Min Rated Energy: _____ at ___ Length of Stroke ____ Fuel Setting
Max Rated Energy: _____ at ___ Length of Stroke ____ Fuel Setting
Ram Weight:_____kips

Modifications: _____
_____
_____

Capblock (Hammer Cushion)

Material:_____
Thickness:_____in Area:_____in^2
Modulus of Elasticity - E:_____ksi
Coefficient of Restitution - e:_____



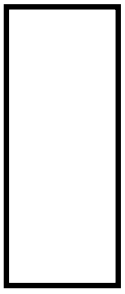
Pile Cap

Helmet
Bonnet
Anvil Block
Drivehead

Weight: kips

Pile Cushion

Material:_____
Thickness:_____in Area: _____in^2
Modulus of Elasticity - E:_____ksi
Coefficient of Restitution - e:_____



Pile

Pile Type:_____
Length (In Leads):_____ft
Lb/ft.:_____Taper:_____
Wall Thickness:_____in
Cross Sectional Area:_____ in^2
Design Pile Capacity:_____kips
Description of Splice:_____
_____
Tip Treatment Description:_____
_____

DISTRIBUTE:

- ☐ Translab, Foundation Testing
- ☐ Translab, Geotechnical Design
- ☐ Resident Engineer

Note: If mandrel or follower is used to drive the pile, attach separate manufacturer's detail sheet(s) including weight and dimensions.

Submitted By:_____
Date:_____Phone No.:_____

Add to section 49-3.02B(6)(c):

The synthetic slurry must be one of the materials shown in the following table:

Material	Manufacturer
SlurryPro CDP	KB INTERNATIONAL LLC 735 BOARD ST STE 209 CHATTANOOGA TN 37402 (423) 266-6964
Super Mud	PDS CO INC 105 W SHARP ST EL DORADO AR 71731 (870) 863-5707
Shore Pac	CETCO 2870 FORBS AVE HOFFMAN ESTATES IL 60192 (800) 527-9948
Terragel or Novagel Polymer	GEO-TECH SERVICES LLC 220 N. ZAPATA HWY STE 11A-449A LAREDO TX 78043 (210) 259-6386
BIG FOOT	MATRIX CONSTRUCTION PRODUCTS 50 S MAIN ST STE 200 NAPERVILLE IL 60540 (877) 591-3137
POLY-BORE	BAROID INDUSTRIAL DRILLING PRODUCTS 3000 N SAM HOUSTON PKWY EAST HOUSTON TX 77032 (877) 379-7412

Use synthetic slurries in compliance with the manufacturer's instructions. Synthetic slurries shown in the above table may not be appropriate for a given job site.

Synthetic slurries must comply with the Department's requirements for synthetic slurries to be included in the above table. The requirements are available from:

Offices of Structure Design
P.O. Box 168041
MS# 9-4/11G
Sacramento, CA 95816-8041

SlurryPro CDP synthetic slurry must comply with the requirements shown in the following table:

SlurryPro CDP

Quality characteristic	Test method	Requirement
Density During drilling (pcf) Before final cleaning and immediately before placing concrete (pcf)	Mud weight (density), API RP 13B-1, section 4	 ≤ 67.0[a] ≤ 64.0[a]
Viscosity During drilling (sec/qt) Before final cleaning and immediately before placing concrete (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	 50–120 ≤ 70
pH	Glass electrode pH meter or pH paper	6.0–11.5
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	 ≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.
[a]If authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

Super Mud synthetic slurry must comply with the requirements shown in the following table:

Super Mud

Quality characteristic	Test method	Requirement
Density During drilling (pcf) Before final cleaning and immediately before placing concrete (pcf)	Mud weight (density), API RP 13B-1, section 4	 ≤ 64.0[a] ≤ 64.0[a]
Viscosity During drilling (sec/qt) Before final cleaning and immediately before placing concrete (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	 32–60 ≤ 60
pH	Glass electrode pH meter or pH paper	8.0–10.0
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	 ≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.
[a]If authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

Shore Pac synthetic slurry must comply with the requirements shown in the following table:

Shore Pac

Quality characteristic	Test method	Requirement
Density During drilling (pcf) Before final cleaning and immediately before placing concrete (pcf)	Mud weight (density), API RP 13B-1, section 4	 ≤ 64.0[a] ≤ 64.0[a]
Viscosity During drilling (sec/qt) Before final cleaning and immediately before placing concrete (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	 33–132 ≤ 118
pH	Glass electrode pH meter or pH paper	8.0–11.0
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.
[a]If authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

Terragel or Novagel Polymer synthetic slurry must comply with the requirements shown in the following table:

Terragel or Novagel Polymer

Quality characteristic	Test method	Requirement
Density During drilling (pcf) Before final cleaning and immediately before placing concrete (pcf)	Mud weight (density), API RP 13B-1, section 4	 ≤ 67.0[a] ≤ 64.0[a]
Viscosity During drilling (sec/qt) Before final cleaning and immediately before placing concrete (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	 45–104 ≤ 104
pH	Glass electrode pH meter or pH paper	6.0–11.5
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.
[a]If authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

BIG-FOOT synthetic slurry must comply with the requirements shown in the following table:

BIG-FOOT

Quality characteristic	Test method	Requirement
Density During drilling (pcf) Before final cleaning and immediately before placing concrete (pcf)	Mud weight (density), API RP 13B-1, section 4	 ≤ 64.0[a] ≤ 64.0[a]
Viscosity During drilling (sec/qt) Before final cleaning and immediately before placing concrete (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	 30–125 55-114
pH	Glass electrode pH meter or pH paper	8.5–10.5
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.
[a]If authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

POLY-BORE synthetic slurry must comply with the requirements shown in the following table:

POLY-BORE

Quality characteristic	Test method	Requirement
Density During drilling (pcf) Before final cleaning and immediately before placing concrete (pcf)	Mud weight (density), API RP 13B-1, section 4	 62.8-65.8[a] 62.8-64.0[a]
Viscosity During drilling (sec/qt) Before final cleaning and immediately before placing concrete (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	 50–80 50-80
pH	Glass electrode pH meter or pH paper	7.0–10.0
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.
[a]If authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

Add to section 49-4.03B:

If you substitute piles with a larger diagonal dimension for the piles shown, ream or enlarge the drilled hole to provide a hole diameter at least 3inches larger than the diagonal dimension of the pile.

^^

51 CONCRETE STRUCTURES

Add to section 51-1.01A:

The concrete at the bridge abutments, bridge wingwalls, bridge vehicular barriers, and soldier pile wall must be integrally pigmented colored concrete. The color must match Davis Color 6804 Cliffside Brown .

Add to the list in the 6th paragraph of section 51-1.01A:

Add to section 51-1.01C:

Calculate and set elevation control points to construct concrete structures to the lines and grades shown. Submit elevation control points and allow 5 days for the Department's review.

Add to section 51-1.01C(1):

If the methacrylate crack treatment is applied to a bridge deck within 100 feet of a residence, business, or public space, submit a public safety plan. Include with the submittal:

1. Copy of public notification letter with a list of delivery addresses and posting locations. The letter must describe the work to be performed and state the treatment work locations, dates, and times. Deliver copies of the letter to residences and businesses within 100 feet of the treatment work and to local fire and police officials, at least 7 days before starting treatment activities. Post a copy of the letter at the job site.
2. Airborne emissions monitoring plan. Plan must include monitoring point locations. A CIH certified in comprehensive practice by the American Board of Industrial Hygiene must prepare and execute the plan.
3. Action plan for protecting the public if levels of airborne emissions exceed permissible levels.
4. Copy of the CIH's certification.

After completing methacrylate crack treatment activities, submit results from monitoring production airborne emissions as an informational submittal.

Replace the 2nd paragraph of section 51-1.01C(1) with:

Submit a deck placement plan for concrete bridge decks. Include in the placement plan your method and equipment for ensuring that the concrete bridge deck is kept damp by misting immediately after finishing the concrete surface.

Replace section 51-1.01D(1) with:

51-1.01D(1) General

The job site must have at least 4 airborne emissions monitoring points, including the mixing point, application point, and point of nearest public contact. Monitor airborne emissions during methacrylate crack treatment activities.

Replace the 1st paragraph in section 51-1.01D(3)(b)(i) with:

Test concrete surfaces for smoothness and coefficient of friction. Perform tests in the presence of the Engineer. The Engineer tests concrete surfaces crack intensity.

Replace the 1st sentence of the 1st paragraph in section 51-1.01D(3)(b)(ii) with:

Test the surface smoothness of the following:

Delete the 2nd paragraph of section 511-.01D(3)(b)(ii)

Replace the 4th paragraph of section 51-1.01D(3)(b)(ii) with:

Except for POCs, test surface smoothness using:

1. Bridge profilograph under California Test 547. Obtain two profiles in each lane approximately 3 feet from the lane lines and obtain one profile in each shoulder approximately 3 feet from the curb or rail face. Take profiles parallel to the direction of traffic.
2. 12-foot-long straightedge placed transversely to traffic.

Replace the 1st paragraph in section 51-1.01D(3)(b)(iii) with:

After deck surfaces and approach slabs have been textured, test the coefficient of friction of the concrete surfaces under California Test 342.

Add to section 51-1.03G(1):

For the fin concrete surface texture at the soldier pile wall use Fitzgerald Formliner Pattern 16956-Corps Fin or approved equal.

Replace the 2nd paragraph of section 51-1.04 with:

The payment for drainage inlets includes reinforcement, grates, plates and other appurtenances shown on the plans.

Add to section 51-4.02D(3):

Coefficient of friction requirements do not apply for PC concrete slabs.

^^

52 REINFORCEMENT

Add section 52-1.03C:

Field bending is not permitted except where specifically shown or approved.

^^

59 STRUCTURAL STEEL COATINGS

Replace section 59-2.01A(3)(b) with:

59-2.01A(3)(b) Mandatory SSPC-QP Certifications

Submit proof of each required SSPC-QP certification as specified in section 8-1.04C. Required certifications are:

1. AISC-420-10/SSPC-QP 3, enclosed shop

Instead of submitting proof of AISC-420-10/SSPC-QP 3, enclosed shop certification, you may submit documentation with your painting quality work plan showing compliance with the requirements in sections 5 through 18 of AISC-420-10/SSPC-QP 3.

^^

DIVISION VIII MISCELLANEOUS CONSTRUCTION

73 CONCRETE CURBS AND SIDEWALKS

Add to section 73-1.02A:

Concrete must be minor concrete complying with section 90-2 and may contain returned plastic concrete complying with section 90-9.

Add to section 73-3.01C:

Within 2 business days of completing the surveys, submit preconstruction and post-construction surveys sealed and signed by one of the following:

1. Land surveyor licensed in the State
2. Engineer who is registered as a civil engineer in the State

Replace section 73-3.01D(3) with:

73-3.01D(3) Quality Control

For locations shown, perform a preconstruction survey to ensure forms and job site constraints will allow for compliance with required design dimensions and slopes shown. Upon completing the work, perform a post-construction survey to verify design dimensions and slopes requirements are met. The post-construction survey must include a minimum of 3 measurements for each dimension and slope requirement shown. Individual measurements must be equally distributed across the specified slope or dimensional surface. Document and submit these measurements on the Americans with Disabilities Act Compliance Inspection Report form for the facility type shown. Include the equipment and control used to conduct the survey.

Add to the beginning of section 73-3.03:

Before placing Minor Concrete (Curb Ramp), verify that forms and job site constraints allow the required dimensioning and slopes shown. Immediately notify the Engineer if you encounter job site conditions that will not accommodate the design details. Ordered modifications are change order work.

^^

77 LOCAL INFRASTRUCTURE

Replace section 77-1 with:

77-1 CIP CONCRETE SEAT WALLS

77-1.01 GENERAL

Section 77-1 includes specifications for CIP concrete seat walls.

The components of the seat walls are shown on the project plans.

77-1.02 MATERIALS

The wall materials must comply with section 51.

77-1.03 CONSTRUCTION

Install wall materials under section 51

77-1.04 PAYMENT

(Not used)

Add section 77-2:

77-2 ELECTRICAL SERVICE FOR IRRIGATION (CITY)

77-2.01 GENERAL

Section 77-2 includes specifications for electrical service for irrigation (city).

Electrical service for irrigation (city) including:

1. Pull boxes
2. Conduit
3. Conductors

The components of electrical service for irrigation (city) are shown on the project plans.

77-2.02 MATERIALS

The electrical materials must comply with section 86.

77-2.03 CONSTRUCTION

Install electrical material under section 87.

77-2.04 PAYMENT

(Not used)

Add section 77-3:

77-3 TENNIS COURT CRACK SEALING AND RESURFACING

77-3.01 GENERAL

Section 77-3 includes specifications for tennis court crack sealing and resurfacing.

Tennis court crack sealing and resurfacing including:

1. Crack treatment
2. Pigment Dispersion

The components of tennis court crack sealing and resurfacing are shown on the project plans.

77-3.02 MATERIALS

Crack treatments must comply with section 37-6.

Pigment Dispersion must be SportsMaster Colorplus or approved equal.

77-3.03 CONSTRUCTION

Install crack treatment material under section 37-6.

Apply mixed coating with a soft rubber squeegee. A minimum of two coats.

77-3.04 PAYMENT

(Not used)

Add section 77-4:

77-4 FROG POND FOOT BRIDGE

77-4.01 GENERAL

Section 77-4 includes specifications for frog pond foot bridge.

The components of the foot bridge are shown on the project plans.

77-4.02 MATERIALS

The foot bridge materials must comply with section 57.

77-4.03 CONSTRUCTION

Install foot bridge materials under section 57

77-4.04 PAYMENT

(Not used)

Add section 77-5:

77-5 SANITARY SEWER SYSTEM CONSTRUCTION

77-5.01 GENERAL

Section 77-5 includes specifications for Sanitary Sewer System Construction. All sanitary sewer system components and related items for the new construction shall be constructed in accordance with all applicable Seaside County Sanitation District (District) Codes and City of Del Rey Oaks Standards, the latest version of the Standard Specifications as they apply, and any modifications herein. Any proposed deviations must first be approved in writing by the District.

The Contractor shall provide all means necessary, to the satisfaction of the Engineer, to ensure continuous service to all existing customers during and after work hours, weekends and holidays, including the installation of temporary lines and/or temporary pumping equipment. Sewage shall be controlled in a pipeline at all times and flows or leaks in the street or open ditches shall not be allowed.

The components of the sanitary sewer system are shown on the project plans.

77-5.02 MATERIALS

The sanitary sewer system materials must comply with the project plans and Seaside County Sanitation District Code.

77-5.03 CONSTRUCTION

Install the sanitary sewer system per the project plans and Seaside County Sanitation District Code.

77-5.04 PAYMENT

(Not used)

Add section 77-6:

77-6 PRE/POST CCTV INSPECTION

77-6.01 GENERAL

Section 77-6 includes specifications for pre/post construction CCTV inspection.

The Contractor shall hire an independent television inspection service to perform a closed-circuit television inspection of the existing and all newly constructed sewer lines, including laterals from the main to the cleanout; and if lateral line is a replacement, from cleanout to connection point of the existing lateral.

Prior to scheduling televising inspection work, all sanitary sewer construction, and any other underground work which, in the opinion of the Engineer, has the potential to impact sanitary sewer work, shall be installed, their trenches compacted, and all other testing and inspections completed and accepted. Final paving over the work shall not take place until all underground work, including television inspection, is completed and accepted by the Engineer.

The Contractor shall notify the District Engineer in writing 5 working days in advance of the date for television inspection. The Engineer or their authorized representative shall be given the opportunity to be present during the inspection. Upon receipt of the completed televising inspection digital video files and written logs, the Engineer shall be allowed 10 working days to review the video records and logs before giving written notice of acceptance and/or deficiencies of the lines to the Contractor.

The Contractor shall supply plans and specifications for this work to the televising subcontractor with manhole and mainline cleanout numbers, street names, addresses and any other information required to facilitate the work.

During this inspection, the Contractor or their authorized representative shall be present to observe the televising inspection. Acceptance of any portion of the sanitary sewer work shall not be given in the field at the time of televising.

The Engineer shall only receive video and written logs for areas not known by the Contractor to need correction. If while conducting the initial television inspection in the field, the General Contractor or their authorized representative discovers areas that need correction, these corrections shall be made and the area televised again prior to submitting the logs to the Engineer for review. If footage of video that is not required for inspection, such as areas known to need repair, stationary video footage in sanitary sewer lines other than where required and footage not of sanitary sewer facilities, the submittal will be rejected.

Any damage to facilities or obstruction to service caused by the televising operations shall be corrected immediately by the Contractor at no cost to the Owner.

The Contractor shall obtain permission from the Engineer prior to the removal of any manmade or natural obstruction needed to complete this work. Any item removed shall be replaced in kind to the satisfaction of the Engineer and will be done at the Contractor’s expense.

All lines shall be flushed clean with a high-pressure commercial sewer flusher unit or by balling prior to televising. When required to televise an existing line it may be necessary to remove roots, grease or other obstructions prior to flushing per these Special Provisions. The equipment shall be appropriate for the type of obstruction being removed and shall not damage the pipe in any way.

All debris shall be trapped at the first downstream manhole and removed. Debris will be hauled to an appropriate disposal site at the Contractor’s expense.

After flushing and prior to televising, an approved source of water will be discharged into the upstream manhole or mainline cleanout until water flows out of the downstream manhole. This is to be done no more than 24-hours before the video inspection takes place. High pressure flushing of the line is not to be considered as a substitute for this requirement. This shall be done to ensure that all dips or sags are filled before televising; if the sanitary sewer has live flow, the Engineer may waive this requirement. Live flows that are greater than the depth of the gauge shall be temporarily plugged upstream, and bypass pumped to allow for proper televising.

The televising of all lines shall be recorded in a digital color format that does not require the use of specialized equipment and/or programs not already in use by the District’s Engineering Department. Video files shall be on non-rewritable DVD disc(s) or flash drive(s) and shall be delivered to the Engineer along with computer program generated written inspection logs. The video files and written logs shall become the property of the District. Every televised run (manhole to manhole, manhole to mainline cleanout, and laterals) shall be recorded as a separate video file, with the name of the file being the manhole and/or mainline cleanout numbers for the main, and the property address for the lateral. A lateral file shall consist of the run from the clean out to the connection at the main and the run from the clean out to the connection of the existing lateral.

A pan and tilt color camera shall be used for all video inspection of main lines and shall be one specifically designed and constructed for such inspections. The camera shall be mounted on adjustable skids, a tractor, or when approved by the Engineer, a raft to keep it in the center of the pipe. Lighting for the camera shall be supplied by a lamp on the camera, capable of being dimmed or brightened remotely from the control panel. The lighting system shall be capable of lighting the entire periphery of the pipe. The camera shall be operative in 100% humidity conditions and shall have a minimum of 330 lines of resolution. The camera equipment shall produce a continuously monitored color picture, which will have the resolution capability to discern small hair line cracks and other minor and major defects in the sanitary

sewer line. The camera equipment shall be capable of producing digital still pictures for permanent record as required. The camera shall be self-propelled or pulled by a cable winch from the downstream manhole, through the line along the axis of the pipe, at a uniform rate of 1/2 foot per second maximum.

Where infiltration in the sanitary sewer line is suspected, the camera shall be stopped for at least 30 seconds in the area of question and the camera shall pan and/or tilt as needed to ascertain that infiltration is occurring and the possible cause. The camera shall stop at all lateral connections, defects, sags, etc. for a period of at least 10 seconds and the camera shall pan and/or tilt as needed so that all portions of the connection or defect that is visible from within the main line can be completely inspected.

Each pipe run between manholes being inspected may be required to be isolated from the remainder of the line using a line plug to ensure total viewing of the inside periphery of the pipe. The inspection shall be performed in a forward anchor backward direction according to line conditions at the time of the inspection. Every effort shall be made by the Contractor to televise in the same direction as the flow, especially during live flow conditions. The Engineer must approve of any video inspection that goes against the flow.

Televising subcontractor personnel shall be in constant communication during the televising operation.

The Contractor shall keep a copy of the written logs on site that clearly show the exact location, in relation to the starting manhole/mainline cleanout or lateral cleanout, of each following item discovered during the television inspection, infiltration points, lateral locations, cracks, open/pulled joints, roots, broken or collapsed sections, grease, debris, location of dips (starting and ending footage plus depth), and any other discernible features. In addition to the items noted, the video and written logs shall also note, name of project, general contractor, date, line size, length of section, manhole condition and live flow. Measurement for location of defects shall be at ground level by means of a metering device. Markings on the cable, or the like, which would require interpolation for depth of manhole or lateral cleanout will not be allowed. Measurement meters will be accurate to plus or minus one foot in a thousand and must show on video. A one-inch depth gauge pulled or pushed in front of the camera is required for all main lines up to and including 12-inch. For any line larger the Contractor shall verify the required gauge size with the Engineer prior to scheduling television inspection. Measurement of laterals must be recorded on video and written log from bottom of cleanout to main and bottom of cleanout to connection at existing lateral.

The following conditions shall exist prior to the television inspection:

1. All server lines shall be installed, backfilled and compacted;
2. All structures shall be in place, all channeling complete and all pipelines accessible from structures;
3. All other underground facilities, utility piping and conduit within two feet of the sewer main, shall be installed, backfilled and compacted;
4. Pipelines to be inspected shall have been flushed, and all other testing completed and accepted, including the mandrel test;
5. Immediately before the television inspection, run fresh water into the sewer until it passes through the downstream manhole.

All work performed must meet the quality and clarity standards set by the District and is subject to District review and rejection.

Deficiencies revealed by the television inspection, in the opinion of the Engineer, shall be repaired by the Contractor to the satisfaction of the Engineer. After all the required repairs are completed the areas of repair shall be televised again at the Contractor's expense.

The Contractor shall be notified in writing of any deficiencies revealed by the television inspection that will require repair, following which, the Contractor shall excavate and make the necessary repairs and perform a television re- inspection. Television re-inspection shall be at the Contractor's expense.

Although the final determination of required repairs will be made by the Engineer, the following observations are typical defects found in the construction of the sew er pipelines and will require corrections prior to acceptance whether or not there is a passing air test:

1. Off grade - deviation “down” from grade (sag) of 1” or more, unless otherwise allowed on mains larger than 12” in diameter. Any sag in the line greater than 15 linear feet, unless otherwise

approved on specific installations. Any deviation “up” front jade, unless coming out of sag of less than 1” deep;
2. Separations in mainline pipe joints connected by a coupling shall be no more titan 1” in length on mainline sizes of 12” or smaller, and no more than 2” on trunks 15” or larger;
3. Separations over 1/2" in lateral pipes connected by a coupling;
4. Any bell & spigot joint not installed per the pipe manufacturer’s installation recommendations;
5. Offset joints;
6. Chips in pipe ends - none more than 1/4" deep;
7. Cracked or damaged pipe or evidence of the presence of an external object bearing upon the pipe (rocks, roots, etc.);
8. Infiltration;
9. Debits or other for foreign objects;
10. Other obvious deficiencies when compared to Approved Plans and Specifications, these Standards and Standard Drawings.

The above list is not a complete list of items that may be considered as deficiencies. The final determination for any required repair shall be made by the Engineer.

77-6.02 MATERIALS

(Not Used)

77-6.03 CONSTRUCTION

(Not Used)

77-6.04 PAYMENT

(Not used)

^^

78 INCIDENTAL CONSTRUCTION

Replace section 78-4.07 with:

78-4.07 STAINING GALVANIZED SURFACES

78-4.07A GENERAL

78-4.07A(1) Summary

Section 78-4.07 includes specifications for staining galvanized surfaces to achieve a rustic brown color with a matte finish.

Apply the stain to all visible galvanized surfaces of tubular handrailing mounted on the Concrete Barrier (Type 85SW) and the tubular bicycle railing mounted on the Concrete Barrier (Type 85).

78-4.07A(2) Definitions

Not Used

78-4.07A(3) Submittals

Submit the following items for the stain:

1. Product data, including the manufacturer's product sheet, SDS, and application instructions
2. Certificate of compliance
3. Work plan showing methods to control overspray and spillage and protect adjacent surfaces during staining

78-4.07A(4) Quality Assurance

Apply the stain to a test section at least 2 feet long.

The test section may be a section of the surface to be stained if authorized.

The test section must be:

1. Prepared and stained using the same materials, equipment, and methods to be used in the staining work
2. Cured under the manufacturer's instructions
3. Authorized before starting the staining work

Notify the Engineer at least 5 business days before staining the test section.

If ordered, prepare and stain additional test sections.

The Engineer uses the authorized test section to determine the acceptability of the staining work.

If the test section is not incorporated into the work, dispose of the test section after the staining work is complete and authorized.

78-4.07B MATERIALS

The stain must be Natina Steel from Natina Products, LLC.

Obtain the stain from:

NATINA PRODUCTS, LLC
1555 NORTH VIP BLVD
CASA GRANDE AZ 85122
(877) 762-8462

78-4.07C CONSTRUCTION

78-4.07C(1) General

Not Used

78-4.07C(2) Preparation

Before applying the stain:

1. Identify and obtain authorization for the surfaces to be stained
2. Remove oils, dirt, and other contaminants from surfaces to be stained
3. Dry all surfaces to be stained

78-4.07C(3) Application

Stain the galvanized surfaces under the manufacturer's instructions to achieve a color consistent with the color of the authorized test section. Apply stain only to thoroughly dry surfaces during periods of favorable weather.

Control overspray and protect adjacent surfaces during staining using an authorized method.

After application of the stain, keep stained galvanized surfaces dry as specified in the manufacturer's instructions.

Repair stained surfaces damaged during work activities with materials equal to that of the specified stain.

78-4.07D PAYMENT

Payment for staining of galvanized tubular hand railing mounted on the Concrete Barrier (Type 85SW) is included in the payment for Concrete Barrier (Type 85SW).

Payment for staining the tubular bicycle railing mounted on the Concrete Barrier (Type 85) is included in the payment for tubular bicycle railing.

^^

84 MARKINGS

Replace section 84-7 with:

84-7 POLYMER CEMENT SURFACE SYSTEM PAVEMENT MARKINGS

84-7.01 GENERAL

84-7.01A Summary

Section 84-7 includes specifications for installing the Endurablend™ polymer cement surface system pavement markings.

84-7.01B Definitions

Polymer cement surface system: Endurablend™ polymer cement surface system.

84-7.01C Submittals

At least 15 days before use, submit the following:

1. A Certificate of Compliance
2. Training record from the manufacturer for a minimum of one of your employees that will be onsite on a continuous basis when Endurablend™ polymer cement surface system pavement markings.
3. Manufacturer's instructions for placing Endurablend™ polymer cement surface system pavement markings.
4. SDS
5. 3-year manufacturer’s replacement warranty for Endurablend™ polymer cement surface system pavement markings.

84-7.01D Quality Assurance

84-7.01D(1) General

Not used.

84-7.01D(2) Quality Control

Within 30 days of application, test the skid resistance of the Endurablend™ polymer cement surface system pavement markings under ASTM E303.

84-7.01D(3) Weather Limitations

Installation should not be commenced when there is a greater than 40% chance of rain within the next 12 hours. Endurablend™ polymer cement surface system pavement markings should not be applied to substrates with surface temperature exceeding 120° F or below 40°F.

84-7.01D(4) Training

Use personnel trained by the manufacturer to apply Endurablend™ polymer cement surface system pavement markings. Provide training by the manufacturer to a maximum of 4 Department employees on placement for Endurablend™ polymer cement surface system pavement markings. Training must be a minimum of 2 hours to include material storage, surface preparation, material handling, mixing, placement, and material exposure safety.

84-7.01D(5) Warranty

The 3-year manufacturer's replacement warranty for Endurablend™ polymer cement surface system pavement markings, must cover defects in workmanship, colorfastness, and attachment. The 3-year warranty period starts the day after CCA.

84-7.02 MATERIALS

The material used shall be the Endurablend™ polymer cement surface system pavement markings and must comply with the specifications shown in the following table:

Polymer Cement Material Properties

Description	Test Method	Value
Compressive Strength, (at 28 days) 2” Cube	ASTM C-109	> 3,100 PSI
Tensile Strength	ASTM C-190	> 700 PSI
Bond Strength with Asphalt	ASTM C-1583	> 250 PSI
Bond Strength with Concrete	ASTM C-1583-13	> 250 PSI
Applied Skid Resistance	ASTM E-303	> 60

Endurablend™ polymer cement surface system pavement markings can be obtained from:

Address	Telephone
Pavement Surface Coatings LLC 11 Eagle Rock Ave, East Hanover, NJ 07936	Michael Plath: (973)580-2809 Corporate Telephone: (866) 215-6120

84-7.03 CONSTRUCTION

Protect the existing surrounding pavement.

Place Endurablend™ polymer cement surface system pavement markings under the manufacturer's instructions.

Place Endurablend™ polymer cement surface system pavement markings at a minimum thickness of 0.090 inches.

The applied Endurablend™ polymer cement surface system pavement markings must have a British Pendulum Number skid resistance value of 60.

84-7.04 PAYMENT

Not used.

Replace section 84-9.03B with:

84-9.03B Remove Traffic Stripes and Pavement Markings Containing Lead

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

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

Management of this material exposes workers to health hazards that must be addressed in your lead compliance plan.

Replace section 84-10 with:

84-10 THERMOPLASTIC PAVEMENT MARKING (GREEN)

84-10.01 GENERAL

84-10.01A Summary

Section 84-10 includes specifications for applying green pavement markings for the bicycle lane.

84-10.01B Definitions

Not Used

84-10.01C Submittals

At least 7 days before applying green pavement markings, submit:

1. Product data sheet
2. Application instructions
3. Safety data sheets
4. Manufacturer's product specifications

84-10.01D Quality Control and Assurance

Comply with the manufacturer's requirements.

84-10.02 MATERIALS

The green pavement markings must be PreMark ViziGrip as manufactured by Ennis-Flint.

You may obtain PreMark ViziGrip from the manufacturer:

Address	Website	Telephone no.
ENNIS-FLINT 115 TODD COURT THOMASVILLE, NC 27360	http://www.ennisflintamericas.com/	(800) 331-8118

The price quoted by the manufacturer for the PreMark ViziGrip pack is $210.00, not including sales tax. The pack contains materials that cover 30 square feet.

The above price is firm for orders placed by August 31, 2018, provided you accept delivery within 30 days after you place the order.

84-10.03 CONSTRUCTION

Apply PreMark ViziGrip under the manufacturer's instructions.

84-10.04 PAYMENT

Not Used

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DIVISION X ELECTRICAL WORK

86 GENERAL

Add to section 86-1.02:

All new lighting circuits shall be controlled by astronomical timeclock.

Astronomical Time Clock Shall be:

A. Manufacturer: Torque DZS series Model # DZS400BP or equal in outdoor rated enclosure

Add to section 86-1.02B:

The conduit in a foundation and between a foundation and the nearest pull box shall be Type 1.

All primary electrical conduit shall be Type 3 for all conduit and fittings. All elbows and sweeps shall be a minimum 36" radius. Long Line Couplings shall be used. Flex adapters or PVC Flexible Couplings shall not be used.

All lighting conduit shall be Type 3 for all conduit and fittings. All elbows and sweeps shall be minimum 24" radius. Existing street light conduit may require splice with Type 3 conduit, with elbows and sweeps to be a minimum 24" radius.

Add to section 86-1.02C:

All existing pull boxes to receive new conductors and/or conduits shall be cleaned out, all existing grout removed, and the bottoms re-grouted with a drain hole or the boxes replaced to meet current State Standards.

All lighting and signal pull boxes / junction boxes shall be No. 5 (17"x30"x18") unless otherwise noted on plans with penta head coil nuts and bolts. All lighting and signal pull box / junction box covers shall be labeled "Electric" for lighting or "Signal."

Add to section 86-1.02J:

All lighting standard materials and installation, including but not limited to, lighting standard and foundation shall conform to the applicable portions of this Section.

Lighting Standard.

Street light pole standards shall be round non tapered steel smooth and meeting the following requirements (select model/height to match height noted on the drawings):

A. Manufacturer and Model #: Kim Lighting Model #RSS-K-16-40-B-1-K2-BLS-RBC with arm attachments, pole cap and base cover. Provide 20 ft pole where indicated on plans.
B. Finish: BLS
C. Pole: 16' tall, 4" outer diameter, bolt circle 9.0"
D. Anchor Base Cover: Kim Lighting Round Base Cover (Standard) or approved equal.
E. Anchor Bolts: Galvanized meeting ASTM F1554 Grade 55, Dia = 0.75", Length = 17.0", Hook = 3.0"
F. Foundation: Concrete Per Plans

Replace section 86-1.02K(1) with:

Luminaires shall be LED fixture:

A. Manufacturer: Kim Lighting UR20 area light. See lighting schedule on plans for additional information.

Payment.

STREET LIGHT AND CONCRETE BASE will be paid at the contract unit price per each (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary for the installation of (1) Street light fixture, type as indicated on the drawings, with pole, concrete pole base, concrete reinforcing, anchoring, excavation, fill, and surface restoration, and associated fixture mounting hardware and all incidental work involved, as designated by the Engineer and all other related work, as specific in the Standard Specifications and these Special Provisions and as directed by the Engineer.

POWER CIRCUIT, BELOW GRADE will be paid at the contract unit price per linear foot (LF) which price shall include full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary for the installation of (1) Type 3 schedule 40 PVC or HDPE conduit with conductors as shown

on plans, insulated copper building wires (unless otherwise noted on drawings), including trenching, backfill, surface restoration, splices, fuses and fittings as required by California Electrical Code, and all incidental work involved, as designated by the Engineer and all other related work, as specific in the Standard Specifications and these Special Provisions and as directed by the Engineer.

ELECTRICAL PULL BOX will be paid at the contract unit price per each (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary for the installation of No. 5 pull boxes, backfill and surface restoration, and all incidental work involved, as designated by the Engineer and all other related work, as specific in the Standard Specifications and these Special Provisions and as directed by the Engineer.

ASTRONOMICAL TIMECLOCK will be paid at the contract unit price per each (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary for the installation of (1) 4-relay astronomical timeclock in a NEMA 4x outdoor enclosure, type as indicated on the drawings (or equal as approved by the Engineer), with mounting and hardware as required to surface mount on mounting frame and all incidental work involved, as designated by the Engineer and all other related work, as specific in the Standard Specifications and these Special Provisions and as directed by the Engineer.

WEATHERPROOF WALL PENETRATION will be paid at the contract unit price per each (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary for the provision of (1) weatherproof wall penetration in the existing building structure, sized to allow a 1.5-inch conduit penetration, including cutting, interior and exterior surface patching with materials to match existing, weatherproof seal, and surface painting to match the original interior and exterior surface colors, and all incidental work involved, as designated by the Engineer and all other related work, as specific in the Standard Specifications and these Special Provisions and as directed by the Engineer.

SPARE CONDUIT, BELOW GRADE – will be paid at the contract unit price per linear foot (LF) which price shall include full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary for the installation of (1) 2-inch schedule 40 PVC conduit with a single nylon pull line, conduit fittings as required by California Electrical Code, and all incidental work involved, as designated by the Engineer and all other related work, as specific in the Standard Specifications and these Special Provisions and as directed by the Engineer. Trenching, backfill, and surface restoration costs shall be included in other bid items, as all spare conduits will be installed with at least 1 lighting power circuit.

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87 ELECTRICAL SYSTEMS

Add to section 87-1.03B:

Conduit runs shown on the Plans to be located behind curbs may be installed in the street, within 3 feet of and parallel to the face of the curb, by the trenching in pavement method described in section 87-1.03B(3)(b)(iii) of the Standard Specifications. All pull boxes shall be located behind the curb or at the locations shown on the Plans.

After conductors have been installed, the ends of conduits terminating in pull boxes shall be sealed with an approved type of sealing compound.

At locations where conduit is required to be installed under pavement and existing underground facilities require special precautions, conduit shall be placed by the "Trenching in Pavement Method."

At other locations where conduit is required to be installed in the traveled way and if delay to any vehicle will not exceed 5 minutes, conduit may be installed by the "Trenching in Pavement Method" as described below:

When the Trenching in Pavement Method is used, the existing asphalt concrete shall be cut with a power driven saw or ground to a depth of not less than 1/15 foot, a minimum of 6 inches beyond either side of the

trench, in order to provide a neat and true edge with no shatter outside the removal area. If the trench is within 3 feet of a gutter edge, only one saw cut will be required (on the side of the trench opposite of the gutter) and the asphalt surfacing shall be replaced all the way to the gutter edge. A tack coat shall be applied to the vertical edges just prior to placing the asphalt concrete used to cap the trench.

Damage to pavement that is to remain in place shall be repaired to a condition satisfactory to the Engineer, or the damaged pavement shall be removed and replaced with new asphalt concrete if ordered by the Engineer. Repairing or removing and replacing pavement damaged outside the limits of pavement to be replaced shall be at the Contractor's expense.

If the Contractor elects to use Directional Boring, the conduit shall be installed between a minimum depth of 24" and a maximum depth of 60" unless directed otherwise by the Engineer.

Add to section 87-1.03E:

No native material shall be used as trench backfill within paved areas.

All trench spoils shall be removed from the work area by the Contractor as they are generated at the Contractor's expense. Material resulting from trench excavation shall be disposed of in conformance with the provisions in Section 87-1.03E "Excavating and Backfilling for Electrical Systems." In addition, all excess trench excavation spoils shall be removed from the site as they are generated and shall become the property of the Contractor and shall be disposed of by the Contractor at the Contractor's expense.

Where conduit containing conductors of 100 volts or less is installed parallel and adjacent to the existing gutter lip, the trench shall be approximately 2 inches wider than the outside diameter of the conduit and shall not exceed 6 inches in width. Trench depth shall not exceed conduit trade-diameter plus 10 inches, except that at pull boxes the trench may be hand dug to required depth. The conduit shall be placed in the bottom of the trench with the top of the conduit a minimum of 9 inches below finish grade.

When conduit containing conductors of 100 volts or less is not installed adjacent to the lip of gutter it shall be installed with a minimum of 24 inches of cover.

All conduit containing conductors of more than 100 volts shall be installed with a minimum of 24 inches of cover.

Where existing facilities prevent installing conduit with 24 inches of cover, the Contractor shall depress the new conduit under the existing facilities without exception.

The Contractor shall pot-hole and record the depth of all existing utilities which are within the area to be trenched or excavated.

Where excavation occurs within the drip line of any street tree the Contractor shall hand dig to protect tree roots as directed by the Engineer. Root pruning shall be done only when directed by the Engineer and shall be accomplished by use of sharp tools appropriate for the size of root to be cut. Each cut shall be clean with no torn bark or splintered wood remaining on the root. At no time shall roots be pulled on by excavating equipment.

Add to section 87-1.03F:

Contractor shall coordinate temporary shutoff of electrical service equipment with utility company having jurisdiction at sites requiring new electrical service.

Add to section 87-2.03A:

Existing electrical equipment to remain which is damaged by the Contractor, shall be replaced by the Contractor at their expense.

Contractor's attention is directed to Section 15, "Existing Facilities". Removal shall include disconnection from lighting circuit, removal of lighting standard, base and foundation to the depth shown on the Plans.

Protect lighting standard from damage during removal and store at a location accessible by the Owner.

Lighting standard and luminaire to be reinstalled on new base and foundation per Plans.

Replace section 87-7.01 with:

Section 87-7 includes specifications for constructing solar powered rectangular flashing beacon systems.

Flashing beacon system includes:

1. RRFB LED Light Bar
2. Push button
3. Wireless Bollard
4. Control Cabinet with Solar Panel
5. Flash Controller
6. Wireless Transceiver
7. Battery
8. Pole Package
9. Static Signage
10. Mounting Hardware

Each unit shall consist of a solar panel with mount, controller enclosure that houses the energy management system, on-board user interface, wireless communications and push button with voice message controller. Each unit shall include minimum two (2) RRFB lightbars with side-emitting pedestrian confirmation light (both ends). The system shall include the roadside signage at the crosswalk and as shown on the plans. Type 1-B pole and foundations shall also be included as part of the system and as shown on the plans. The Contractor shall furnish and install all equipment and devices as described in this specification and as shown on the plans for a complete functional RRFB system. The components of a flashing beacon system are shown on the project plans. The flash rate for the flashing beacon must comply with chapter 4L, "Flashing Beacons," of the California MUTCD.

The flashing beacon must allow alternating flashing wig-wag operation.

The flashing beacon must have a separate flasher unit installed in the flashing beacon control assembly.

Replace section 87-7.02 with:

The controller enclosure shall be constructed from aluminum with a lockable or tamper-proof hinged door. All electronics shall be mounted in the controller enclosure. A separate cabinet to house the controller for the optional push button with voice message shall not be required.

Each lightbar shall have two light modules of approximately 7” wide by approximately 3” high. Each lightbar shall include a side-emitting pedestrian confirmation light on each end.

At each location, dual lightbar (bi-directional configuration/double sided) shall be installed per plans.

The lightbar shall be mounted to the pole using a separate bracket assembly to facilitate mounting two lightbars back-to-back (bi-directional) but still allow the lightbars to be pivoted independently of each other. The lightbar shall be able to pivot by approximately 40 degrees in order to aim the lightbar independent of the wire hole location on the pole.

The lightbar bracket shall be constructed from 3/16” galvanized steel and shall have both banding and bolting mounting options and shall be able to be mounted to all specified pole types. The controller enclosure shall house an on-board user interface that provides on-site configuration adjustment, system status and fault notification, and system activation information.

The flash duration shall be adjustable in-the-field from 10 to 60 seconds in one second increments.

The system shall provide configurable nighttime intensity settings.

The system shall be capable of enabling or disabling ambient brightness auto-adjustment. This feature allows the system to provide optimal output brightness in relation to ambient light levels while always maintaining adherence to SAE J595 Class I specifications.

Flash duration and other in-the-field adjustable settings shall be automatically broadcast to all units in the system, except channel selection which shall be configured on each unit.

The system shall include one 45-watt high-efficiency photovoltaic cell solar panel supplied with mounting hardware. The controller enclosure shall house one 35 Ah sealed valve-regulated lead-acid battery. The battery shall be readily available from multiple suppliers and non-proprietary. Solar panel and battery system shall be 12 Volt dual battery systems (sealed, maintenance-free) and shall be designed for minimum 5-year battery life.

Replace section 87-9 with:

87-9 RECTANGULAR RAPID FLASHING BEACON SYSTEMS

87-9.01 GENERAL

87-9.01A Summary

Section 87-9 includes specifications for constructing rectangular rapid flashing beacon (RRFB) systems.

A rectangular rapid flashing beacon system includes:

1. Foundations
2. Pull boxes
3. Conduit
4. Conductors
5. Cables
6. Standards or poles
7. Rectangular Rapid Flashing Beacons
8. Accessible pedestrian signals
9. Rectangular Rapid Flashing Beacons Controllers

The components of a RRFB system are shown on the project plans.

87-9.01B Definitions

Not Used

87-9.01C Submittals

87-9.01C(1) General

Submit programming parameter for APS.

87-9.01C(2) Type 2 and Type 3 Rectangular Rapid Flashing Beacon Controllers

Submit an RRFB controller photovoltaic power supply sizing report that shows:

1. System loss of load probability is 0% for the entire year
2. Minimum Array to Load Ratio of 1.1
3. Minimum 7 days of autonomy

87-9.02 MATERIALS

87-9.02A General

Not Used

87-9.02B Rectangular Rapid Flashing Beacons

Rectangular rapid flashing beacons must have a light intensity compliant to the specifications of Society of Automotive Engineers standard J595 requirements for peak luminous intensity (candelas) for Class 1 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles).

The rectangular rapid flashing beacons must:

1. Use Light Emitting Diode-array based light source
2. Be of a yellow LED color

3. Be aligned horizontally in the housing with a minimum 7 inches space between the two beacons, measured from inside edge of one beacon to inside edge of the other beacon
4. Be activated by an APS
5. Have an automatic signal dimming device during nighttime conditions
6. Have pilot LEDs visible to pedestrians from across the road giving confirmation that the beacons are in operation.
7. Have stainless steel fasteners
8. Have a life expectancy of 100,000 hours
9. Have corrosion-resistant powder-coated aluminum housing

Each beacon must:

1. Be a minimum size of 5 inches wide by 2 inches high
2. Be aligned horizontally in the housing

The flashing rectangular beacons operation must:

1. Be normally dark, initiated only upon pedestrian actuation, and cease operations after a predetermined time after the actuation. When using passive detection, the operation shall terminate after the pedestrian clears the crosswalk. The predetermined time must comply with Section 4E.06 of the California MUTCD.
2. Flash rapidly and alternately upon activation:
    2.1. In rapidly alternating "*wig-wag plus simultaneous*" flashing sequence of left light on, then right light on
    2.2. Must start within 150 milliseconds and cease operation simultaneously
3. Have 75 flash cycles per minute with 800 milliseconds flash cycle length The 800 millisecond flash cycle must have the following sequence:
    3.1. The “left” side beacon is on for 50 milliseconds followed by both beacons being off for 50 milliseconds
    3.2. The “right” side beacon is on for 50 milliseconds followed by both beacons being off for 50 milliseconds
    3.3 The “left” side beacon is on for 50 milliseconds followed by both beacons being off for 50 milliseconds
    3.4 The “right” side beacon is on for 50 milliseconds followed by both beacons being off for 50 milliseconds
    3.5 Both beacons are on for 50 milliseconds followed by both beacons being off for 50 milliseconds
    3.6 Both beacons are on for 50 milliseconds followed by both beacons being off for 250 milliseconds
4. Revert to dark upon a fixed adjustable time frame

Where an advanced flashing beacon is used ahead of the crosswalk, it must start and cease operation simultaneously with the other RRFB assigned to the same crosswalk.

87-9.02C Rectangular Rapid Flashing Beacon Controllers

87-9.02C(1) General

The RRFB controller must:

1. Be housed in a NEMA 3R enclosure
2. Have a unique wireless channel to communicate between RRFB controllers assigned to the same crosswalk
3. Have an onboard user interface and display for configuration
4. Have a minimum of two APS inputs

87-9.02C(2) Type 1 Rectangular Rapid Flashing Beacon Controllers

A Type 1 RRFB controller must:

1. Have an (ac) power supply and terminal block
2. Support wired communications between RRFB controllers assigned to the same crosswalk

87-9.02C(3) Type 2 Rectangular Rapid Flashing Beacon Controllers

A Type 2 RRFB controller must:

1. Have a photovoltaic power supply with a minimum of 12 Ah of battery capacity housed in the NEMA 3R enclosure
2. Regulate the voltage and current from the solar module to the battery and load
3. Use series regulation to reduce field effect transistor (FET) heating and to lower voltage stress on the power FET
4. Have a minimum 15 Watt solar module mounted to the NEMA 3R enclosure

87-9.02C(4) Type 3 Rectangular Rapid Flashing Beacon Controllers

Type 3 RRFB controllers must:

1. Have a photovoltaic power supply with a minimum of 20 Ah of battery capacity housed in the NEMA 3R enclosure
2. Regulate the voltage and current from the solar module to the battery and load
3. Use series regulation to reduce field effect transistor (FET) heating and to lower voltage stress on the power FET
4. Have a minimum 20 Watt solar module mounted on the pole
5. Have a barrier-type terminal block rated for 25 A, 600 V(ac)
6. Have a 15-A, circuit breaker
7. Support wired communications between RRFB controllers assigned to the same crosswalk

87-9.03 CONSTRUCTION

87-9.03A General

Not Used

87-9.03B Rectangular Rapid Flashing Beacons

Install RRFBs and ensure the pilot LEDs visible to pedestrians in the crosswalk from across the street.

Install RRFBs and signs on the pole and ensure the outside edge of the beacons, including housing, does not project beyond the outside edge of the signs.

Install the R10-25 sign on the accessible pedestrian signal.

The RRFB pedestrian clearance interval must be equal to the length of the crosswalk in feet divided by 3.5 seconds rounded up to the nearest second. The Engineer verifies the fixed adjustable time.

Program the accessible pedestrian signals with:

1. A locator tone.
2. Disabled the vibrotactile device.
3. The message "Yellow lights are flashing". The message should be spoken twice.

87-9.03C Type 2 and Type 3 Rectangular Rapid Flashing Beacon Controllers

Not Used
Install and orient the solar module to maximize the collection of solar energy.

87-9.04 PAYMENT

Not Used

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DIVISION XI MATERIALS

90 CONCRETE

Add to section 90-1.01A:

The specifications for CIP structural concrete members in sections 90-1.01C(6)(b), 90-1.01C(8)(b), 90-1.01C(11), 90-1.01C(12), 90-1.01D(7), 90-1.01D(8), 90-1.01D(9), 90-1.01D(10)(b), and 90-1.01D(11)(b) do not apply.

Add to the end of section 90-1.01C(6)(a):

All mix designs must be stamped and signed by a licensed professional engineer in the state of California.

Add section 90-1.01C(14):

96-1.01C(14) Ready-Mix Plant Certification

Provide ready-mix plant certification or ASTM C94 certification documentation.

Add to the end of 6th paragraph of section 90-1.02E(1):

If more than one admixture is used, they must be added separately through dispensers or manually and must not be mixed with each other prior to adding to the concrete mix.

Replace the 2nd paragraph of section 90-1.02I(2)(a) with:

Add an air-entraining admixture to the concrete at the rate required to produce an air content of 3.0 + 1.5 percent in the freshly mixed concrete.

Replace the 1st paragraph of section 90-1.01D(5)(b) with:

If the concrete has a described 28-day compressive strength equal to or greater than 3,600 psi, or if prequalification is specified, prequalify the materials, mix proportions, mixing equipment, and procedures proposed for use in the work before placing the concrete.

Add section 90-2.01A:

Section 90-2 includes specifications for Concrete Stamp A, Concrete Stamp B and Integral Color Concrete Paving.
The components Concrete Stamp A, Concrete Stamp B and Integral Color Concrete Paving are shown on the project plans.

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96 GEOSYNTHETICS

Replace the *Apparent opening size* for Class A filter fabric in the table in the 2nd paragraph of section 96-1.02B with:

#70 maximum US standard sieve size.

Add the following rows to the table in the 2nd paragraph of section 96-1.02B:

Fabric weight (min, oz/yd^2)	ASTM D5261	5.4
Burst strength (min, psi)	ASTM D3786	300

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