

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE	OF PAGES
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. <i>(If applicable)</i>	
6. ISSUED BY		CODE	7. ADMINISTERED BY <i>(If other than Item 6)</i>		CODE	
8. NAME AND ADDRESS OF CONTRACTOR <i>(No., street, county, State and ZIP Code)</i>				(✓)	9A. AMENDMENT OF SOLICITATION NO.	
					9B. DATED <i>(SEE ITEM 11)</i>	
					10A. MODIFICATION OF CONTRACT/ORDER NO.	
					10B. DATED <i>(SEE ITEM 13)</i>	
CODE		FACILITY CODE				

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: <i>(Specify authority)</i> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES <i>(such as changes in paying office, appropriation date, etc.)</i> SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER <i>(Specify type of modification and authority)</i>

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER <i>(Type or print)</i>		16A. NAME AND TITLE OF CONTRACTING OFFICER <i>(Type or print)</i>	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
<i>(Signature of person authorized to sign)</i>		BY _____ <i>(Signature of Contracting Officer)</i>	

PREVIOUS EDITION UNUSABLE

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SPECIAL CONTRACT REQUIREMENTS (SCRs)

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Amendment A002, Nov 30, 2012

	A2300	41103-0000	PRIME COAT	68,000	SQYD	\$ _____	\$ _____
	A2350	41105-0000	BLOTTER	575	TON	\$ _____	\$ _____
	A2400	41201-1000	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H	30	TON	\$ _____	\$ _____
A002	A2450	56302-1000	PAINTING, CONCRETE STRUCTURE	4,750	SQFT	\$ _____	\$ _____
	A2500	60101-0000	CONCRETE	13	CUYD	\$ _____	\$ _____
	A2550	60103-0100	CONCRETE, HEADWALL FOR 18-INCH PIPE CULVERT	1	EACH	\$ _____	\$ _____
	A2600	60103-0140	CONCRETE, HEADWALL FOR 24-INCH PIPE CULVERT	1	EACH	\$ _____	\$ _____
	A2650	60103-0180	CONCRETE, HEADWALL FOR 36-INCH PIPE CULVERT	1	EACH	\$ _____	\$ _____
	A2700	60201-0600	18-INCH PIPE CULVERT	80	LNFT	\$ _____	\$ _____
	A2750	60201-0800	24-INCH PIPE CULVERT	330	LNFT	\$ _____	\$ _____
	A2800	60201-0900	30-INCH PIPE CULVERT	120	LNFT	\$ _____	\$ _____
	A2850	60201-1000	36-INCH PIPE CULVERT	70	LNFT	\$ _____	\$ _____
	A2900	60201-1100	42-INCH PIPE CULVERT	55	LNFT	\$ _____	\$ _____
	A2950	60210-0600	END SECTION FOR 18-INCH PIPE CULVERT	4	EACH	\$ _____	\$ _____

Bid Schedule

Schedule:A

Schedule Type:Base

Project No:CA PRA GOGA 104(1) 105(2)

Project Name:Rehab Bunker and Mitchell Roads

	A3700	60901-2300	CURB, ASPHALT, 6-INCH DEPTH	1,650	LNFT	\$ _____	\$ _____
	A3750	60902-1000	CURB AND GUTTER, CONCRETE, 12-INCH DEPTH	300	LNFT	\$ _____	\$ _____
	A3800	60906-1000	GUTTER, CONCRETE	225	SQYD	\$ _____	\$ _____
	A3850	60908-1000	PAVED DITCH, ASPHALT	1,400	SQYD	\$ _____	\$ _____
	A3900	60915-1000	WHEELSTOP, CONCRETE	17	EACH	\$ _____	\$ _____
	A3950	60915-2000	WHEELSTOP, TIMBER	421	EACH	\$ _____	\$ _____
A002	A4000	61108-1000	ADJUST WATER VALVE	20	EACH	\$ _____	\$ _____
	A4050	61501-0100	SIDEWALK, CONCRETE	1,000	SQYD	\$ _____	\$ _____
	A4100	61502-1000	DRIVE PAD, CONCRETE	555	SQYD	\$ _____	\$ _____
	A4150	61505-1000	ACCESSIBILITY RAMP, CONCRETE	1	EACH	\$ _____	\$ _____
	A4200	61701-1250	GUARDRAIL SYSTEM G4, TYPE 2, CLASS A WOOD POSTS	3,800	LNFT	\$ _____	\$ _____
	A4250	61702-0400	TERMINAL SECTION, TYPE G4-CRT	2	EACH	\$ _____	\$ _____
	A4300	61702-0600	TERMINAL SECTION, TYPE FLARED	6	EACH	\$ _____	\$ _____
	A4350	61702-0800	TERMINAL SECTION TYPE TANGENT	5	EACH	\$ _____	\$ _____

Bid Schedule

Schedule:A

Schedule Type:Base

Project No:CA PRA GOGA 104(1) 105(2)

Project Name:Rehab Bunker and Mitchell Roads

Amendment A002, Nov 30, 2012

	X1450	40205-3000	ANTISTRIP ADDITIVE, TYPE 3	15.0	TON	\$ _____	\$ _____
	X1500	40920-1000	FOG SEAL, EMULSIFIED ASPHALT GRADE CSS-1 OR CSS-1H, SS-1 OR SS-1H	3	TON	\$ _____	\$ _____
	X1550	41103-0000	PRIME COAT	5,540	SQYD	\$ _____	\$ _____
	X1600	41105-0000	BLOTTER	40	TON	\$ _____	\$ _____
	X1650	41201-1000	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H	3.0	TON	\$ _____	\$ _____
	X1700	55201-0200	STRUCTURAL CONCRETE, CLASS A (AE)	81	CUYD	\$ _____	\$ _____
	X1750	55401-1000	REINFORCING STEEL	24,899	LB	\$ _____	\$ _____
A002	X1800	56302-1000	PAINTING, CONCRETE STRUCTURE	2,850	SQFT	\$ _____	\$ _____
	X1850	56901-0000	MICROPILES	485	LNFT	\$ _____	\$ _____
	X1900	56905-0000	MICROPILE LOAD VERIFICATION TEST	1	EACH	\$ _____	\$ _____
	X1950	56906-0000	MICROPILE PROOF LOAD TEST	2	EACH	\$ _____	\$ _____
	X2000	60201-0800	24-INCH PIPE CULVERT	80	LNFT	\$ _____	\$ _____
	X2050	60210-0800	END SECTION FOR 24-INCH PIPE CULVERT	1	EACH	\$ _____	\$ _____
	X2100	60231-0000	DISSIPATOR, PIPE	4	EACH	\$ _____	\$ _____

Bid Schedule

Schedule:X

Schedule Type:Options

Project No:CA PRA GOGA 104(1) 105(2)

Project Name:Rehab Bunker and Mitchell Roads

August 21, 2012

Submit samples of materials for quality verification testing for materials required to conform to Sections 703, 704, and 705.

Materials containing petroleum-based solvents such as cutback asphalts and traffic paints may be restricted from use by local laws or ordinances in certain geographic areas. Upon presenting proof of such restrictions, alternate materials considered acceptable to the CO may be substituted for the materials specified in the contract.

105.02 Material Sources

(b) Contractor-located sources. Add the following to the end of the first paragraph:

For Contractor-located, non-commercial sources, secure environmental clearances according to Subsection 107.10.

The following sources have been tested and are approved for earthen material import to the GGNRA:

1. Mark West Quarry, 4611 Porter Creek Road, Santa Rosa, CA
2. Stony Point Rock Quarry, 7171 Stony Point Road, Cotati, CA
3. San Rafael Quarry, 1000 Point San Pedro Road, San Rafael, CA. Only ¾-inch diameter or larger material is approved from the San Rafael Quarry.

105.04 Storing and Handling Material. Add the following after the third sentence of the second paragraph:

For Contractor-located, non-commercial staging, storing, and material handling areas, secure environmental clearances according to Subsection 107.10.

Add the following:

Equipment and material staging areas will be located in existing disturbed areas within construction limits or previously approved areas. The Contractor may use the following for staging equipment and/or storage of materials:

- Smith Road (Maintain a 100-foot buffer from the riparian area near Smith Road or protect with silt fence (Park will flag the boundaries of the riparian area). Install silt fence at the edge of the staging area to delineate and protect.
- Fort Cronkhite Dirt Overflow Lot. Use of lot is only permitted after all work is complete at both the Fort Cronkhite Parking Lot and the Fort Cronkhite Annex Parking Lot.
- Large parking area/ disturbed area off of Bunker Road west of the Baker-Barry tunnel. This location also is being used by USGS. All USGS equipment will be required to be protected by Contractor.

August 21, 2012

(f) Noise. The following basic control measures to control noise shall be implemented at all construction sites:

- Equipment and trucks used for construction shall utilize noise control techniques, including original mufflers, intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds;
- All equipment and construction vehicles must meet federal standards for the year they were built and must be properly maintained and equipped with exhaust mufflers that meet state standards;
- Construction equipment shall not idle for long periods of time;
- Impact tools used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air or exhaust from pneumatically powered tools;
- When a pneumatically powered tool must be used, an exhaust muffler on the compressed air exhaust shall be used; and
- External jackets on the tools shall be used where feasible.

(g) Alexander Avenue EA compliance. The following environmental protections shall be applied to Alexander Avenue (Option X) work.

(1) Limitations on excavated material and debris removal. The contractor shall not exceed the thresholds of significance for criteria air pollutants established by BAAQMD. See Table 2-4, page 2-6 from the BAAQMD document below:

http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx?la=en

The contractor shall submit an excavation and haul plan of proposed excavation activities that includes the results of a model of the air pollutant emissions (using the Roadway Construction Emissions Model) to ensure proposed excavation activities do not exceed the thresholds of significance for criteria air pollutants established by BAAQMD. The plan shall be submitted 14 days prior to starting work on Alexander Avenue and also include anticipated haul distances, capacity of haul vehicles, excavation equipment, and production rates per day.

(2) Avoid dust accumulation on mission blue butterfly habitat. The contractor shall ensure that dust is controlled during construction by periodically watering down construction areas within 100 feet of mission blue butterfly habitat as necessary. Habitat will be flagged by NPS. Provide the CO a 14 day notice prior to beginning construction activities on Alexander Avenue to allow for NPS flagging.

(3) Control construction dust. The contractor shall perform the following dust control measures:

August 21, 2012

Section 303. – ROAD RECONDITIONING**Material****303.02** Add the following:

Crushed aggregate

703.06

Construction Requirements**303.08 Pulverizing.** Delete the text and substitute the following:

Pulverize the existing asphalt pavement and/or base to the width and depth shown in the plans with an approved rotary milling machine to meet the following size requirements according to AASHTO T27:

Sieve Designation	Percent Passing
1 ½ inch	100
1 inch	85 – 100

Place and compact the pulverized material according to Subsection 301.05. Compact each layer to at least 95 percent of maximum density. Determine the in-place density and moisture content according to AASHTO T 310 or ASTM D2950.

Remove and dispose of unsuitable material prior to pulverizing as directed by the CO. Replace unsuitable material with minor crushed aggregate. Perform work according to Section 308.

Clean the compacted surface of all loose material, dirt, or other deleterious substances by approved methods. Correct surface irregularities by scarifying the defective area and reworking the pulverized material. Finish the pulverized surface according to Subsection 301.06.

Section 308. – MINOR CRUSHED AGGREGATE**Description****308.01** Add the following:

Roadway aggregate, method 2 (Chert aggregate surfacing) consists of native reddish chert and similar dark rock materials lacking reflectivity. Obtain this material from the [stockpiles at the Smith Road parking area and the Alexander Avenue east side roadway excavation](#).

August 21, 2012

**Table 402-5
Type II Pavement Roughness Pay Factors**

Percent Improvement (%)	Pay Factor (PF _{rough})
Greater than 60.0	PF = 1.05
58.6 to 60.0	PF = 1.04
57.6 to 58.5	PF = 1.03
56.6 to 57.5	PF = 1.02
55.1 to 56.5	PF = 1.01
49.0 to 55.0	PF = 1.00
48.0 to 48.9	PF = 0.99
47.0 to 47.9	PF = 0.98
46.0 to 46.9	PF = 0.97
45.0 to 45.9	PF = 0.96
44.0 to 44.9	PF = 0.95
43.0 to 43.9	PF = 0.94
42.0 to 42.9	PF = 0.93
41.0 to 41.9	PF = 0.92
40.0 to 40.9	PF = 0.91
38.0 to 39.9	PF = 0.90
36.0 to 37.9	PF = 0.89
35.0 to 35.9	PF = 0.88
34.0 to 34.9	PF = 0.87
33.0 to 33.9	PF = 0.86
31.0 to 32.9	PF = 0.85
25.0 to 30.9	PF = 0.80
10.0 to 24.9	PF = 0.70
Less than 10.0	Correct & Overlay

(d) Type III pavement roughness. Measure the profile of the final pavement surface before placing a surface treatment and within 21 days of completing roadway paving. The localized roughness threshold for Type III pavement roughness is 140 inches per mile. Pay factors from Table ~~401-5~~ [402-6](#) will be used in conjunction with the histogram printout from ProVAL's Smoothness Assurance Analysis. The final pay factor (PF_{rough}) is equal to the sum of the products of the individual pay factors indicated in Table ~~401-5~~ [402-6](#) multiplied by ProVAL's corresponding histogram percentages, divided by 100. The final pay factor (PF_(rough)) will be determined to three decimal places. Correct areas of localized roughness in accordance with paragraph (g). Any pavement with an MRI greater than 125 inches per mile is in reject and shall be corrected in accordance with paragraph (g).

August 21, 2012

604.08 Acceptance. Add the following:

Drop inlet filters will be evaluated under Subsections 106.02 and 106.03.

Metal grates will be evaluated under Subsections 106.02 and 106.03.

Measurement

Add the following:

604.09 Drop inlet filters are subsidiary to Section 604 inlet items. Do not measure filter for payment.

Removal and disposal of existing grates are subsidiary to Section 604 inlet items. Do not measure removal of existing grates for payment.

**Section 607. – CLEANING, RECONDITIONING, AND
REPAIRING EXISTING DRAINAGE STRUCTURES**

Add the following Materials subsection:

Materials

607.01A Conform to the following Section and Subsection:

Masonry and Mortar Cement

701.02

Construction Requirements

607.04 Cleaning Culverts in Place. Add the following:

Foreign material shall not be permitted to be washed downstream.

607.06 Reconditioning Drainage Structures. Add the following:

Modify existing drainage structures to allow installation of Item 60409-0000, Inlet Top, Metal Grate.

Add the following Subsection:

607.06A Lining Pipe Culverts.

Line pipe culverts after all other culvert work (extending pipe, constructing headwalls, etc.) has been completed. Clean the culvert of all debris and allow the culvert to dry completely. Use a

remote- or winch-powered lining machine and supply cement-mortar to the lining machine through high-pressure hoses. Use a cement mixture that provides a 28-day compressive strength of at least 3000 pounds per square inch. Apply the cement-mortar with a uniform thickness no less than 1 inch and no greater than 2 inches by ensuring the lining machine travels through the culvert at a constant rate of speed. At the culvert inlet, finish the edge of the mortar lining to provide a 45 degree beveled transition into the culvert. Dewater and divert stream flow as necessary to prevent washout of the grout lining during placement and the subsequent curing time. Inspect the cured cement-mortar lining using closed-circuit television.

Prior to beginning any work on the site or ordering any materials, for the crossing requiring repair, provide to the CO a plan documenting how this culvert will be repaired. Describe in detail elements of the plan such as material placement, headworks and tailworks site disturbance/requirements, address how the integrity of the existing pipe will be maintained, and how the inlets/outlets are finished.

Payment

607.09 Add the following:

Payment for modification of existing drainage structures to accommodate Item 60409-0000, Inlet Top, Metal Grate, shall be included in Item 60705-0000, Reconditioning Drainage Structure.

Section 609. – CURB AND GUTTER

Description

609.01 Add the following:

This work consists of constructing paved ditches contiguous to the traveled way.

August 21, 2012

Remove and dispose of all roots, stumps and branches larger than 3 inches and rock larger than 12 inches upon completion of spreading. Remove stones or rocks under 12 inches that are not firmly embedded and those that protrude more than 4 inches.

Prior to placing topsoil, scarify soil surfaces.

Once topsoil has been placed on slopes, do not drive any equipment over it.

Measurement

624.06 Delete the subsection and substitute the following:

Do not measure topsoil for payment

Payment

624.07 Delete the subsection and substitute the following:

Payment for preparing and placing topsoil will be made under Item 20401-0000, Roadway Excavation.

Section 625. – TURF ESTABLISHMENT

Materials

625.02 Add the following:

Seed shall be provided by the NPS. Allow two weeks notice to the CO before seeding operations begin.

Construction Requirements

625.03 Turf Establishment Seasons. Delete the first sentence and substitute the following:

Perform ~~all~~ season one seeding between November 15, 2013th and January 15, 2014th. Perform season two seeding after June 1, 2014.

625.09 Protecting and Caring for Seeded Areas. Delete the subsection and substitute the following:

625.09 Protecting and Caring for Seeded Areas. Protect and care for seeded areas including watering when needed. Repair or apply supplemental applications of seed, mulch, fertilizer, and water as many times as needed until turf is established or final acceptance.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B1	B42

THE FOLLOWING QUANTITIES ARE APPROXIMATE UNLESS NOTED AS A CONTRACT QUANTITY. PAYMENT WILL BE MADE FOR THE ACTUAL QUANTITIES OF WORK PERFORMED AND ACCEPTED OR FOR MATERIALS FURNISHED IN ACCORDANCE WITH THE CONTRACT.

SUMMARY OF QUANTITIES (SCHEDULE A)

SHEET NUMBER			B7	B15-B17	B19-B20	B22-B25	B28-B34	B36-B37	B39	B41	S1	ESTIMATED QUANTITIES		REMARKS AND/OR DETERMINATION OF ESTIMATED QUANTITIES
SHEET DESCRIPTION			GRADING SUMMARY	DRAINAGE SUMMARY	SURFACING SUMMARY	MISCELLANEOUS SUMMARIES	SIGNING SUMMARY	PAVEMENT MARKING SUMMARY	EROSION CONTROL SUMMARY	TRAFFIC CONTROL SUMMARY	STRUCTURE SUMMARY	PLAN	BID SCHEDULE	
ITEM NO.		UNIT												
15101-0000	MOBILIZATION	LPSM										ALL	ALL	
15206-0000	SLOPE, REFERENCE, AND CLEARING AND GRUBBING STAKE	STA				67.9						67.9	68	
15210-3000	CENTERLINE, VERIFICATION AND STAKING	STA				121.5						121.5	122	
15214-2000	SURVEY AND STAKING, RETAINING WALL	LPSM										ALL	ALL	
15215-1000	SURVEY AND STAKING, APPROACH ROAD	EACH				4						4	4	
15215-3000	SURVEY AND STAKING, DRAINAGE STRUCTURE	EACH		8								8	9	
15215-7000	SURVEY AND STAKING, PARKING AREA	EACH				4						4	4	
15216-2000	SURVEY AND STAKING, GRADE FINISHING STAKES	STA				113.2						113.2	114	
15301-0000	CONTRACTOR QUALITY CONTROL	LPSM										ALL	ALL	
15401-0000	CONTRACTOR TESTING	LPSM										ALL	ALL	
15501-0000	CONSTRUCTION SCHEDULE	LPSM										ALL	ALL	
15705-0100	SOIL EROSION CONTROL, SILT FENCE	LNFT							900			900	950	
15705-0300	SOIL EROSION CONTROL, SLOPE DRAINS	LNFT							900			900	950	
15705-1400	SOIL EROSION CONTROL, SEDIMENT LOG	LNFT							1,271			1,271	1,450	
15705-1500	SOIL EROSION CONTROL, SEDIMENT WATTLE	LNFT							21,203			21,203	24,000	
15706-0200	SOIL EROSION CONTROL, CHECK DAM (SEDIMENT LOG)	EACH							278			278	290	
15706-1000	SOIL EROSION CONTROL, INLET PROTECTION	EACH							33			33	33	
15706-1600	SOIL EROSION CONTROL, STABILIZED CONSTRUCTION ENTRANCE	EACH							4			4	4	
15802-0000	WATERING FOR DUST CONTROL	LPSM										ALL	ALL	
20101-0000	CLEARING AND GRUBBING	ACRE				12.0						12.0	12	
20304-1000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LPSM										ALL	ALL	
20401-0000	ROADWAY EXCAVATION	CUYD	19,262									19,262	20,000	
20402-0000	SUBEXCAVATION	CUYD	500									500	500	
20430-1000	SHOULDER, EXCAVATION	LNFT			16,396							16,396	17,000	
20441-0000	WASTE	CUYD	16,244									16,244	17,000	
20441-0000	WASTE (SPECIAL)	CUYD	12									12	12	
21101-2000	ROADWAY OBLITERATION, METHOD 2	SQYD			2,587							2,587	2,750	
25101-2000	PLACED RIPRAP, CLASS 2	CUYD		23		53						76	80	
25101-3000	PLACED RIPRAP, CLASS 3	CUYD		80							57	137	145	
25101-4000	PLACED RIPRAP, CLASS 4	CUYD		25								25	30	
25302-1000	GABIONS, GALVANIZED OR ALUMINIZED COATED	CUYD				467						467	500	
30302-1000	DITCH RECONDITIONING	LNFT		4,340								4,340	4,500	
30306-3500	PULVERIZING, 7-INCH DEPTH	SQYD			43,314							43,314	45,500	
30801-2000	ROADWAY AGGREGATE, METHOD 2 (CHERT AGGREGATE SURFACING)	CUYD			1,889							1,889	2,100	
30801-2000	ROADWAY AGGREGATE, METHOD 2 (RECYCLED ASPHALT PAVEMENT)	CUYD			871							871	950	
30802-2000	ROADWAY AGGREGATE, METHOD 2 (IMPORT)	TON			10,220							10,220	10,600	
40201-2900	HOT ASPHALT CONCRETE PAVEMENT, HVEEM TEST, CLASS B, GRADING B	TON			2,422							2,422	2,500	
40201-4700	HOT ASPHALT CONCRETE PAVEMENT, HVEEM TEST, CLASS B, GRADING C OR E	TON			14,982							14,982	15,500	
40205-3000	ANTISTRIP ADDITIVE, TYPE 3	TON			157.3							157.3	175	
40401-0000	MINOR HOT ASPHALT CONCRETE	TON										180	180	As directed by CO
40920-1000	FOG SEAL, EMULSIFIED ASPHALT GRADE CSS-1 OR CSS-1H, SS-1 OR SS-1H	TON			26.9							26.9	30	
41103-0000	PRIME COAT	SQYD			63,780							63,780	68,000	
41105-0000	BLOTTER	TON			513.7							513.7	575	
41201-1000	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H	TON			26.9							26.9	30	
56302-1000	PAINTING, CONCRETE STRUCTURE	SQFT								4,500		4,500	4,750	
60101-0000	CONCRETE	CUYD		5		7						12	13	



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SUMMARY OF QUANTITIES (SCHEDULE A)

Sheet 1 of 3

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SHEET DESCRIPTION			GRADING SUMMARY	DRAINAGE SUMMARY	SURFACING SUMMARY	MISCELLANEOUS SUMMARIES	SIGNING SUMMARY	PAVEMENT MARKING SUMMARY	EROSION CONTROL SUMMARY	TRAFFIC CONTROL SUMMARY	STRUCTURE SUMMARY	PLAN	BID SCHEDULE	
ITEM NO.		UNIT												
60103-0100	CONCRETE, HEADWALL FOR 18-INCH PIPE CULVERT	EACH		1								1	1	
60103-0140	CONCRETE, HEADWALL FOR 24-INCH PIPE CULVERT	EACH		1								1	1	
60103-0180	CONCRETE, HEADWALL FOR 36-INCH PIPE CULVERT	EACH		1								1	1	
60201-0600	18-INCH PIPE CULVERT	LNFT		75								75	80	
60201-0800	24-INCH PIPE CULVERT	LNFT		319								319	330	
60201-0900	30-INCH PIPE CULVERT	LNFT		116								116	120	
60201-1000	36-INCH PIPE CULVERT	LNFT		65								65	70	
60201-1100	42-INCH PIPE CULVERT	LNFT		52								52	55	
60210-0600	END SECTION FOR 18-INCH PIPE CULVERT	EACH		4								4	4	
60210-0800	END SECTION FOR 24-INCH PIPE CULVERT	EACH		4								4	4	
60210-0900	END SECTION FOR 30-INCH PIPE CULVERT	EACH		4								4	4	
60231-0000	DISSIPATOR, PIPE	EACH		5								5	5	
60403-0000	INLET (SPECIAL)	EACH		9								9	9	
60404-1000	CATCH BASIN, TYPE 1	EACH		2								2	2	
60405-0000	MANHOLE ADJUSTMENT	EACH				25						25	26	
60406-0000	INLET ADJUSTMENT	EACH		2								2	2	
60409-0000	INLET TOP, METAL GRATE	EACH		19								19	19	
60501-0000	STANDARD UNDERDRAIN SYSTEM	LNFT		2,050								2,050	2,200	
60704-0000	CLEANING CULVERT IN PLACE	EACH		12								12	12	
60705-0000	RECONDITIONING DRAINAGE STRUCTURE	EACH		17								17	17	
60706-0000	CLEANING DRAINAGE STRUCTURE	EACH		12								12	12	
60707-0500	LINING 24-INCH PIPE CULVERT	LNFT		280								280	295	
60901-1200	CURB, CONCRETE, 14-INCH DEPTH	LNFT				250						250	275	
60901-2300	CURB, ASPHALT, 6-INCH DEPTH	LNFT				1,530						1,530	1,650	
60902-1000	CURB AND GUTTER, CONCRETE, 12-INCH DEPTH	LNFT				271						271	300	
60906-1000	GUTTER, CONCRETE	SQYD				208						208	225	
60908-1000	PAVED DITCH, ASPHALT	SQYD				1,306						1,306	1,400	
60915-1000	WHEELSTOP, CONCRETE	EACH				17						17	17	
60915-2000	WHEELSTOP, TIMBER	EACH				421						421	421	
61108-1000	ADJUST WATER VALVE	EACH				18						18	20	2
61501-0100	SIDEWALK, CONCRETE	SQYD				943						943	1,000	
61502-1000	DRIVE PAD, CONCRETE	SQYD				537						537	555	
61505-1000	ACCESSIBILITY RAMP, CONCRETE	EACH				1						1	1	
61701-1250	GUARDRAIL SYSTEM G4, TYPE 2, CLASS A WOOD POSTS	LNFT				3,753						3,753	3,800	
61702-0400	TERMINAL SECTION, TYPE G4-CRT	EACH				2						2	2	
61702-0600	TERMINAL SECTION, TYPE FLARED	EACH				6						6	6	
61702-0800	TERMINAL SECTION, TYPE TANGENT	EACH				5						5	5	
61707-0000	STRUCTURE TRANSITION RAILING	LNFT									100	100	110	
61901-0000	FENCE (POST/CABLE)	LNFT				2,084						2,084	2,200	
61901-0550	FENCE, BARB-LESS WIRE (BRIDGE)	LNFT									431	431	450	
61901-2000	FENCE, CHAIN LINK, 72-INCH HEIGHT	LNFT				755						755	755	
61902-0000	GATE (VEHICLE)	EACH				3						3	3	
61902-0000	GATE (PEDESTRIAN)	EACH				3						3	3	
61902-0000	GATE (AUTOMATED)	EACH				1						1	1	
61920-2000	REMOVE AND RESET GATE	EACH				1						1	1	
62201-0150	DUMP TRUCK, 7 CUBIC YARD MINIMUM CAPACITY	hour										40	40	
62201-0400	BACKHOE LOADER, 2 CUBIC FOOT MINIMUM RATED CAPACITY BUCKET, 12-INCH WIDTH	hour										40	40	
62201-0900	WHEEL LOADER, 2 CUBIC YARD MINIMUM RATED CAPACITY	hour										40	40	
62201-1400	BULLDOZER, 250HP MINIMUM FLYWHEEL POWER	hour										40	40	
62201-2050	ROLLER	hour										20	20	
62201-2850	MOTOR GRADER, 12 FOOT MINIMUM BLADE	hour										40	40	



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SUMMARY OF QUANTITIES (SCHEDULE A)

Sheet 2 of 3

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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B5	B42

THE FOLLOWING QUANTITIES ARE APPROXIMATE UNLESS NOTED AS A CONTRACT QUANTITY. PAYMENT WILL BE MADE FOR THE ACTUAL QUANTITIES OF WORK PERFORMED AND ACCEPTED OR FOR MATERIALS FURNISHED IN ACCORDANCE WITH THE CONTRACT.

SUMMARY OF QUANTITIES (OPTION X)

SHEET NUMBER			B7	B18	B21	B26-B27	B35	B38	B40	B42	G7	S6	ESTIMATED QUANTITIES		REMARKS AND/OR DETERMINATION OF ESTIMATED QUANTITIES
SHEET DESCRIPTION			GRADING SUMMARY	DRAINAGE SUMMARY	SURFACING SUMMARY	MISCELLANEOUS SUMMARIES	SIGNING SUMMARY	PAVEMENT MARKING SUMMARY	EROSION CONTROL SUMMARY	TRAFFIC CONTROL SUMMARY	MSE WALL SUMMARY	STRUCTURE SUMMARY	PLAN	BID SCHEDULE	
ITEM NO.		UNIT													
55201-0200	STRUCTURAL CONCRETE, CLASS A (AE)	CUYD										81	81	81	Contract quantity
55401-1000	REINFORCING STEEL	LB										24,899	24,899	24,899	Contract quantity
56302-1000	PAINTING, CONCRETE STRUCTURE	SGFT								2,700			2,700	2,850	2
56901-0000	MICROPILES	LNFT										442	442	485	
56905-0000	MICROPILE LOAD VERIFICATION TEST	EACH										1	1	1	
56906-0000	MICROPILE PROOF LOAD TEST	EACH										2	2	2	
60201-0800	24-INCH PIPE CULVERT	LNFT		66									66	80	
60210-0800	END SECTION FOR 24-INCH PIPE CULVERT	EACH		1									1	1	
60231-0000	DISSIPATOR, PIPE	EACH		4									4	4	
60405-0000	MANHOLE ADJUSTMENT	EACH				2							2	2	
60901-2100	CURB, ASPHALT, 4-INCH DEPTH	LNFT				835							835	850	
60901-2300	CURB, ASPHALT, 6-INCH DEPTH	LNFT				566							566	580	
60902-1000	CURB AND GUTTER, CONCRETE, 12-INCH DEPTH	LNFT				365							365	380	
60908-1000	PAVED DITCH, ASPHALT	SQYD				158							158	165	
61501-0100	SIDEWALK, CONCRETE	SQYD				151							151	170	Bus stop
61701-4000	GUARDRAIL SYSTEM SBTB	LNFT				1,613							1,613	1,625	
61702-0100	TERMINAL SECTION, TYPE SBT-BAT	EACH				3							3	3	
61702-1400	TERMINAL SECTION, TYPE SBT TANGENT	EACH				1							1	1	
61709-1000	REMOVE AND RESET, POST (UTILITY POLE)	EACH				2							2	3	
61805-0000	RESET BARRIER	LNFT				110							110	125	
61901-1400	FENCE, CHAIN LINK, 36-INCH HEIGHT	LNFT				190							190	210	
61901-2000	FENCE, CHAIN LINK, 72-INCH HEIGHT	LNFT				1,767							1,767	1,750	
62201-0150	DUMP TRUCK, 7 CUBIC YARD MINIMUM CAPACITY	hour											20	20	
62201-0400	BACKHOE LOADER, 2 CUBIC FOOT MINIMUM RATED CAPACITY BUCKET, 12-INCH WIDTH	hour											20	20	
62201-0900	WHEEL LOADER, 2 CUBIC YARD MINIMUM RATED CAPACITY	hour											20	20	
62201-1400	BULLDOZER, 250HP MINIMUM FLYWHEEL POWER	hour											20	20	
62201-2050	ROLLER	hour											20	20	
62201-2850	MOTOR GRADER, 12 FOOT MINIMUM BLADE	hour											20	20	
62201-3350	HYDRAULIC EXCAVATOR, 1 CUBIC YARD MINIMUM CAPACITY	hour											20	20	
62201-3500	LOADER, WHEEL, SKID STEER, 40HP MINIMUM	hour											20	20	

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U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SUMMARY OF QUANTITIES (OPTION X)
 Sheet 2 of 3

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B12	B42

REMOVAL SUMMARY (SCHEDULE A)

Station to Station	Side	REMOVAL OF FENCE (CHAIN LINK)	REMOVAL, INDIVIDUAL TREE	REMOVAL OF GATE	REMOVAL OF DELINEATOR POST	REMOVAL OF WHEELSTOP	REMOVAL OF GUARDRAIL	REMOVAL OF INLET	REMOVAL OF PIPE CULVERT	REMOVAL OF HEADWALL	REMOVAL OF PAVEMENT, ASPHALT	REMOVAL OF CURB AND GUTTER, CONCRETE	REMOVAL OF CURB, ASPHALT	REMOVAL OF CONCRETE	REMOVAL OF SIDEWALK, ASPHALT	REMOVAL OF ABANDONED GAS	REMOVAL OF UTILITY VAULT	Remarks
		LNFT (NO PAY)	EACH (NO PAY)	EACH (NO PAY)	EACH (NO PAY)	EACH (NO PAY)	LNFT (NO PAY)	EACH (NO PAY)	EACH (NO PAY)	EACH (NO PAY)	SQYD (NO PAY)	LNFT (NO PAY)	LNFT (NO PAY)	SQYD (NO PAY)	SQYD (NO PAY)	LNFT (NO PAY)	EACH (NO PAY)	
Old Bunker Road (Schedule A)																		
302+40 to 313+98	RT										3,035							
310+20	LT/RT								1									
310+28	LT							1										
Old Bunker Road Subtotal								1	1		3,035							
Mitchell Road (Schedule A)																		
12+00 to 26+00						162					3,236			62	11	620		
12+10	LT/RT		1					1										
12+14	LT/RT								1									
12+17	LT/RT								1									
22+20									1									
26+00 to 37+55	RT					82	336				2,661			6				
30+20									1									
37+12	RT								1								1	
Mitchell Road Subtotal			1			244	336	1	4		5,897			68	11	620	1	
Bunker Road (Schedule A)																		
37+55 to 52+46	LT/RT		1					1,078			2,651							
39+86	LT/RT								1									
43+11	LT/RT								1									
45+02	LT								1									
45+40	LT/RT								1	1								
45+42	LT/RT								1	1								
46+63	RT								1									
52+96 to 82+00	LT/RT							1,864										
60+95	LT																	1
61+84	LT																	1
66+65	LT																	1
79+87	LT																	1
82+00 to 111+75	LT/RT		1															
84+81	RT								1	1								
88+80										1								
90+17	LT																	1
92+39										1								
111+75 to 143+00	LT/RT											204						
127+05									1									
136+68									1									
137+38									1									
143+00 to 168+95	LT/RT		1											14				
Bunker Road Subtotal			3	0	0	0	2,942	4	9	2	2,651	218					5	

Notes:
 1. Removal quantities are estimated and shown for informational purposes only.
 2. All required removals are paid for under Item 20304-1000 Removal of Structures and Obstructions. Payment is lump sum.
 3. Sign removals are shown on the Permanent Sign Summary sheets.

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U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

REMOVALS SUMMARY (SCHEDULE A)
 Sheet 1 of 2

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B19	B42

SURFACING QUANTITY SUMMARY (SCHEDULE A)

Station to Station	SHOULDER EXCAVATION (4)	ROADWAY OBLITERATION, METHOD 2	PULVERIZING, 7-INCH DEPTH	ROADWAY AGGREGATE, METHOD 2 (CHERT AGGREGATE SURFACING)	ROADWAY AGGREGATE, METHOD 2 (RECYCLED ASPHALT PAVEMENT) (2)	ROADWAY AGGREGATE, METHOD 2 (IMPORT) (1)	ROADWAY AGGREGATE, METHOD 2 (IMPORT) (1)	HOT ASPHALT CONCRETE PAVEMENT, HVEEM TEST, CLASS B, GRADING B	HOT ASPHALT CONCRETE PAVEMENT, HVEEM TEST, CLASS B, GRADING C OR E	ANTISTRIP ADDITIVE, TYPE 3	FOG SEAL, EMULSIFIED ASPHALT GRADE CSS-1 OR CSS-1H, SS-1 OR SS-1H	PRIME COAT	BLOTTER	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H	Remarks
	LNFT	SQYD	SQYD	CUYD	CUYD	CUYD	TON	TON	TON	TON	TON	SQYD	TON	TON	
	20430-1000	21101-2000	30306-3500	30801-2000	30801-2000	FOR INFO ONLY	30802-2000	40201-2900	40201-4700	40205-3000	40920-1000	41103-0000	41105-0000	41201-1000	
Old Bunker Road (Schedule A)															
302+40 to 313+98				43	211	416	781		628	6.3	1.1	3,758	27.7	1.1	
Old Bunker Road Subtotal				43	211	416	781		628	6.3	1.1	3,758	27.7	1.1	
Mitchell Road (Schedule A)															
12+00 to 26+00		505		372	135	566	1,062		855	8.6	1.4	4,204	31.0	1.4	
26+00 to 37+55				319	111	546	1,025		735	7.4	1.2	3,338	24.6	1.2	
Mitchell Road Subtotal		505		691	246	1,112	2,087		1,590	16.0	2.6	7,542	55.6	2.6	
Bunker Road (Schedule A)															
37+55 to 47+00				109	369	582	1,092		738	7.4	1.1	3,301	24.3	1.1	
47+00 to 52+46	1,080		1,706				101		428	4.3	0.6	1,707	12.6	0.6	
52+96 to 82+00	4,067		9,278				548		2,428	24.3	3.6	9,278	68.4	3.6	
82+00 to 111+75	2,975	2,082	9,163	56			561		2,275	22.8	3.4	9,163	67.6	3.4	
111+75 to 143+00	4,612		9,923				589		2,415	24.2	3.6	9,923	73.2	3.6	
143+00 to 168+95	3,662		8,354				486		2,046	20.5	3.0	8,353	61.6	3.0	
Bunker Road Subtotal	16,396	2,082	38,424	165	369	582	3,377		10,330	103.5	15.3	41,725	307.7	15.3	
East Bunker Road (Schedule A)															
							204								
East Bunker Road Subtotal							204								

Values Used For Estimating Purposes
 Aggregate Base 139.0 lb/ft³
 Hot Asphalt Mix 145.1 lb/ft³
 Antistrip 1.0% by weight of HACP
 Fog Seal 0.10 gal/yd² (diluted), 264 gal/ton
 Prime Coat 0.30 gal/yd² (diluted), 264 gal/ton
 Blotter 14.75 lb/yd²
 Tack Coat 0.10 gal/yd² (diluted), 264 gal/ton

Notes:
 (1) Roadway aggregate, method 2 (Import) provides remaining aggregate to be imported after recycled pavement is used on each roadway section.
 (2) The following depths were assumed for removal of pavement and in calculations to determine the quantity of Roadway aggregate, method 2 (Recycled asphalt pavement) available. See section 308 of the SCR's for additional information on use of recycled asphalt material. Old Bunker Road = Varies 1.50 inches to 2.5 inches, Mitchell Road = Varies 1.25 inches to 2.0 inches, Bunker Road = 5 inches, Alexander Avenue = 9 inches.
 (3) Fort Cronkrite Annex quantity for Roadway Aggregate, Method 2 (Import) includes 405 cubic yards for 6" thick gravel surface for the proposed fenced maintenance area.
 (4) Shoulder Excavation is to be paid for by linear foot, regardless of width.
 (5) Use existing chert stockpile at Smith Road parking area for Roadway Aggregate, Method 2 (Chert Aggregate Surfacing), 30801-2000. This material shall be used prior to importing material to 308.01. Approximately 175 CUYD of 1" minus material (no crushing required) and approximately 75 CUYD of larger than 1" material that will need to be crushed before use.

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U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
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SURFACING SUMMARY (SCHEDULE A)
 Sheet 1 of 2

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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B20	B42

SURFACING QUANTITY SUMMARY (SCHEDULE A)

Station to Station	SHOULDER, EXCAVATION (4)	ROADWAY OBLITERATION, METHOD 2	PULVERIZING, 7-INCH DEPTH	ROADWAY AGGREGATE, METHOD 2 (CHERT AGGREGATE SURFACING)	ROADWAY AGGREGATE, METHOD 2 (RECYCLED ASPHALT PAVEMENT) (2)	ROADWAY AGGREGATE, METHOD 2 (IMPORT) (1)	ROADWAY AGGREGATE, METHOD 2 (IMPORT) (1)	HOT ASPHALT CONCRETE PAVEMENT, HVEEM TEST, CLASS B, GRADING B	HOT ASPHALT CONCRETE PAVEMENT, HVEEM TEST, CLASS B, GRADING C OR E	ANTISTRIP ADDITIVE, TYPE 3	FOG SEAL, EMULSIFIED ASPHALT GRADE CSS-1 OR CSS-1H, SS-1 OR SS-1H	PRIME COAT	BLOTTER	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H	Remarks
	LNFT	SQYD	SQYD	CUYD	CUYD	CUYD	TON	TON	TON	TON	TON	SQYD	TON	TON	
	20430-1000	21101-2000	30306-3500	30801-2000	30801-2000	FOR INFO ONLY	30802-2000	40201-2900	40201-4700	40205-3000	40920-1000	41103-0000	41105-0000	41201-1000	
Approach Roads (Schedule A)															
Kirkpatrick Street															
451+22 to 452+00					9	9	17		23	0.2	0.1	108	0.8	0.1	
Stennis Street															
441+18 to 442+00					19	20	38		49	0.5	0.1	228	1.7	0.1	
Hagget Street															
425+00 to 425+37					9	30	56		47	0.5	0.1	228	1.7	0.1	
Glassburn Street															
450+00 to 450+75					8	28	53		45	0.4	0.1	216	1.6	0.1	
Approach Roads Subtotal															
					45	87	164		164	1.6	0.4	780	5.8	0.4	
Parking Areas (Schedule A)															
Fort Cronkhite Annex (3)															
							1,244	2,334	1,624		16.2	2.8	5,414	55.0	2.8
Fort Cronkhite Dirt Overflow															
															Removal of top 3" of existing chert aggregate surfacing for reuse
Fort Cronkhite															
			4,890			815	123	798		8.0	1.9	2,660	36.1	1.9	
Smith Road															
				990		613	1,150		570	5.7	1.3	1,901	25.8	1.3	
Parking Areas Subtotal															
			4,890	990		2,672	3,607	2,422	570	29.9	6.0	9,975	116.9	6.0	
Field, McCullough, and East Roads (Schedule A)															
Field Road, Terminus															
Field Road															
									1,700		1.5			1.5	
Field, McCullough, and East Roads Subtotal															
									1,700		1.5			1.5	
SCHEDULE A TOTAL															
	16,396	2,587	43,314	1,889	871	4,869	10,220	2,422	14,982	157.3	26.9	63,780	513.7	26.9	

Values Used For Estimating Purposes
 Aggregate Base 139.0 lb/ft³
 Hot Asphalt Mix 145.1 lb/ft³
 Antistrip 1.0% by weight of HACP
 Fog Seal 0.10 gal/yd² (diluted), 264 gal/ton
 Prime Coat 0.30 gal/yd² (diluted), 264 gal/ton
 Blotter 14.75 lb/yd²
 Tack Coat 0.10 gal/yd² (diluted), 264 gal/ton

Notes:
 (1) Roadway aggregate, method 2 (Import) provides remaining aggregate to be imported after recycled pavement is used on each roadway section.
 (2) The following depths were assumed for removal of pavement and in calculations to determine the quantity of Roadway aggregate, method 2 (Recycled asphalt pavement) available. See section 308 of the SCR's for additional information on use of recycled asphalt material. Old Bunker Road = Varies 1.50 inches to 2.5 inches, Mitchell Road = Varies 1.25 inches to 2.0 inches, Bunker Road = 5 inches, Alexander Avenue = 9 inches.
 (3) Fort Cronkhite Annex quantity for Roadway Aggregate, Method 2 (Import) includes 405 cubic yards for 6" thick gravel surface for the proposed fenced maintenance area.
 (4) Shoulder Excavation is to be paid for by linear foot, regardless of width.
 (5) Use existing chert stockpile at Smith Road parking area for Roadway Aggregate, Method 2 (Chert Aggregate Surfacing), 30801-2000. This material shall be used prior to importing material to 308.01. Approximately 175 CUYD of 1" minus material (no crushing required) and approximately 75 CUYD of larger than 1" material that will need to be crushed before use.

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U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SURFACING SUMMARY (SCHEDULE A)
 Sheet 2 of 2

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B24	B42

MISCELLANEOUS FEATURES SUMMARY (SCHEDULE A)

Station to Station	CLEARING AND GRUBBING	MANHOLE ADJUSTMENT	WHEELSTOP, CONCRETE	WHEELSTOP, TIMBER	ADJUST WATER VALVE	SOD	SPEED CUSHION (REMOVE AND RESET)	SYSTEM INSTALLATION, TELEPHONE	SYSTEM INSTALLATION, TRAFFIC DETECTOR SYSTEM	CONDUIT, 4-INCH, PVC	UTILITY BOX TELEPHONE PULLBOX	UTILITY BOX JUNCTION BOX	RELOCATE ELECTRICAL LINE	REMOVE AND RESET BENCH	REMOVE AND RESET TRASH RECEPTACLE	REMARKS
	ACRE	EACH	EACH	EACH	EACH	SQYD	EACH	LPSM	EACH	LNFT	EACH	EACH	LPSM	EACH	EACH	
Old Bunker Road (Schedule A)																
302+40 to 313+98	0.5															
Old Bunker Road Subtotal	0.5															
Mitchell Road (Schedule A)																
12+00 to 26+00	0.6	5	8	170												
26+00 to 37+55	0.6	4		102											1	
37+12										25		1				
Mitchell Road Subtotal	1.2	9	8	272						25		1			1	
Bunker Road (Schedule A)																
37+55 to 52+46	0.6															
52+96 to 82+00	0.3	2			1					1,900	4					
60+95										25		1				
61+84										25		1				
65+00 to 90+00					13					25		1				30" by 42" Vaults
66+65										25		1				
79+87										25		1				
82+00 to 111+75	0.4	1								534	2					
90+17										25		1				
111+75 to 143+00	0.4	3			1		2		1							
143+00 to 168+95	0.3	4			1		2		1							
Bunker Road Subtotal	2.0	10			16		4		2	2,584	6	6				
Parking Areas (Schedule A)																
Fort Cronkhite Annex	3.0	1			2			1		585			1	1	1	
Fort Cronkhite Dirt Overflow	2.6					400										
Fort Cronkhite			4	15												
Smith Road	2.7		5	134												
Parking Areas Subtotal	8.3	1	9	149	2	400		1		585			1	1	1	
Field, McCullough and East Roads																
East Road		5														
Field, McCullough and East Roads Subtotal		5														
SCHEDULE A TOTAL	12.0	25	17	421	18	400	4	1	2	3,194	6	6	1	1	2	

(1) Reset at Fort Cronkhite Annex Parking Lot at pedestrian crossing of roadside ditch to access maintenance yard pedestrian gate. See Sheet D12. Pavement for work under Item 64620-0300, Remove and Reset Bench, EACH.
 (2) Utility Box, Telephone Pullbox - One pullbox for every 500 linear feet of conduit.



U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

MISCELLANEOUS SUMMARIES (SCHEDULE A)
 Sheet 3 of 4

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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B25	B42

FENCING SUMMARY (SCHEDULE A)									
Station	to	Station	FENCE (POST/CABLE)	FENCE, CHAIN LINK, 72-INCH HEIGHT	GATE (VEHICLE)	GATE (PEDESTRIAN)	GATE (AUTOMATED)	REMOVE AND RESET GATE	Remarks
			LNFT	LNFT	EACH	EACH	EACH	EACH	
			61901-0000	61902-0000	61902-0000	61902-0000	61902-0000	61920-2000	
Bunker Road (Schedule A)									
52+46	to	82+00							Rodeo Lagoon Bridge
82+00	to	111+75	275						
Bunker Road Subtotal			275						
Mitchell Road (Schedule A)									
12+00	to	36+00						1	
26+00	to	37+55							
Bunker Road Subtotal								1	
Parking Areas (Schedule A)									
Fort Cronkhite Annex			734	755	3	3	1		
Smith Road			1,075						
Parking Areas Subtotal			1,809	755	3	3	1		
SCHEDULE A TOTAL			2,084	755	3	3	1	1	

GABION WALL SUMMARY (SCHEDULE A)											
Station	to	Station	Side	Length FT	STRUCTURE EXCAVATION	WALL BACKFILL	ROCK STAIN	PLACED RIPRAP, CLASS 2	GABIONS, GALVANIZED OR ALUMINIZED COATED	GEOTEXTILE FABRIC (FOR INFORMATION ONLY)	Remarks
					CUYD For Info Only	CUYD For Info Only	SQFT For Info Only	CUYD 25101-2000	CUYD 25302-1000	SQYD	
					51	8	158	7	60	296	
Mitchell Road (Schedule A)											
36+13	to	37+52	RT	140	51	8	158	7	60	296	
Mitchell Road Subtotal					51	8	158	7	60	296	
Bunker Road (Schedule A)											
37+52	to	43+10	RT	561	444	231	1,349	46	407	1,184	
Bunker Road Subtotal					444	231	1,349	46	407	1,184	
SCHEDULE A TOTAL					495	239	1,507	53	467	1,480	

PAVED DITCH SUMMARY (SCHEDULE A)					
Station	to	Station	Side	PAVED DITCH, ASPHALT	Remarks
				SQYD	
				60908-1000	
Old Bunker Road (Schedule A)					
302+40	to	313+98	RT/LT	841	
Old Bunker Road Subtotal				841	
Bunker Road (Schedule A)					
37+55	to	47+00	LT	300	
Bunker Road Subtotal				300	
Field, McCullough, and East Roads (Schedule A)					
McCullough Rod			RT/LT	165	
Field, McCullough, and East Roads Subtotal				165	
SCHEDULE A TOTAL				1,306	



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

MISCELLANEOUS SUMMARIES (SCHEDULE A)

Sheet 4 of 4

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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	B42	B42

TRAFFIC CONTROL QUANTITIES (OPTION X)				
Item Number	Description	Unit	Quantity	Remarks
56302-1000	PAINTING, CONCRETE STRUCTURE	SQFT	2700	2
63301-0000	SIGN SYSTEM (WINDMASTER)	EACH	20	
63502-0500	TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 2	EACH	3	
63502-0600	TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 3	EACH	3	
63502-1300	TEMPORARY TRAFFIC CONTROL, DRUM	EACH	53	
63502-1600	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE B	EACH	3	
63502-2000	TEMPORARY TRAFFIC CONTROL, PORTABLE CHANGEABLE MESSAGE SIGN	EACH	3	
63503-0400	TEMPORARY TRAFFIC CONTROL, CONCRETE BARRIER	LNFT	600	
63503-1000	TEMPORARY TRAFFIC CONTROL, PLASTIC FENCE	LNFT	600	
63505-1000	TEMPORARY TRAFFIC CONTROL, PAVEMENT MARKINGS	MILE	0.3	
63506-0500	TEMPORARY TRAFFIC CONTROL, FLAGGER	HOUR	800	
63510-0100	TEMPORARY TRAFFIC CONTROL, TRAFFIC AND SAFETY SUPERVISOR	WEEK	20	

Measure temporary traffic control items only one time even when relocated or replaced, except for items paid by the hour and striping items.

TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN (OPTION X)						
ITEM NO. 63504-1000						
Type Ref. MUTCD	Signs	Panel Dimension (IN X IN)	Area SQFT	Quantity	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN	
					SQFT	
					63504-1000	
Remarks						
G20-2	END ROAD WORK	36 X 18	4.5	3	13.5	
SPECIAL 01	HEAVY CONSTRUCTION TRAFFIC	68 X 42	19.8	3	59.5	
SPECIAL 02	MISSION BLUE BUTTERFLY PROTECTION	24 X 24	4.0	1	4.0	
SPECIAL 03	NO MOTORCYCLES (OR SIMILAR)	24 X 24	4.0	1	4.0	
W13-1	ADVISORY SPEED PLAQUE (15 MPH)	18 X 18	2.3	5	11.3	
W16-2	XX FEET PLAQUE	24 X 24	4.0	5	20.0	
W20-1	ROAD WORK AHEAD	36 X 36	9.0	5	45.0	
R4-18	DO NOT PASS	18 X 36	4.5	5	22.5	
W11-1	BICYCLE WARNING SIGN	30 X 30	6.3	3	18.8	
W16-1P	SHARE THE ROAD	18 X 24	3.0	3	9.0	
PROJECT TOTAL				34	207.6	

Note:

- 1) Signs will be shared and moved between construction zones.
- 2) Temporary Traffic Control includes vehicles, pedestrians, cyclists, and equestrians.



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

**TRAFFIC CONTROL SUMMARIES
(OPTION X)**

Sheet 1 of 1

East, McCullough, and Field Roads Description of Work

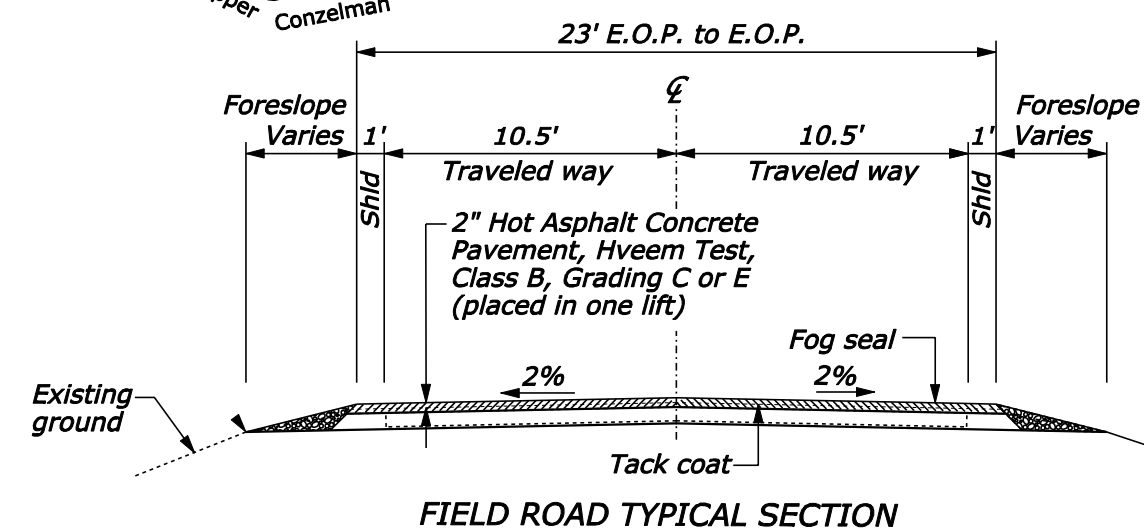
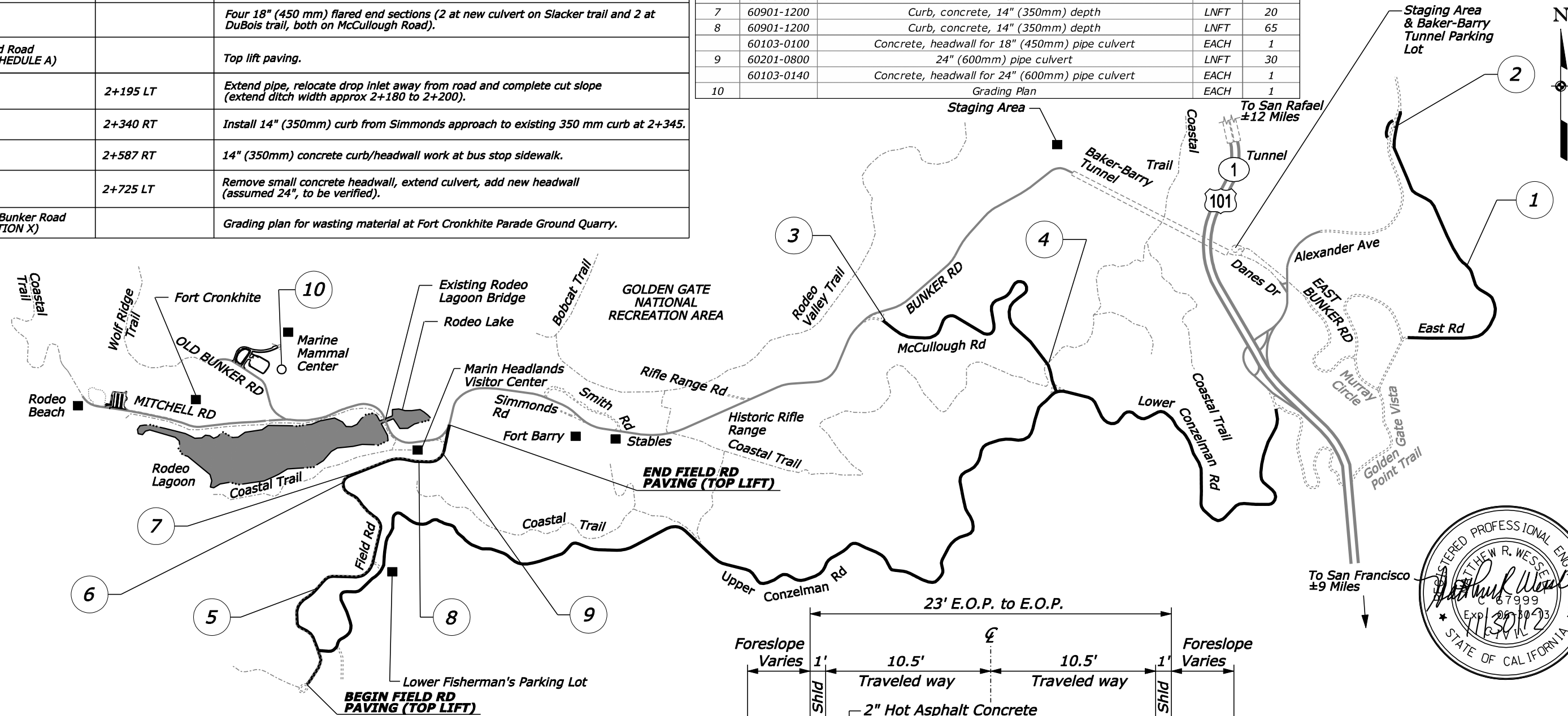
Item #	Route	Station/location	Description
1	East Road (SCHEDULE A)	1+724 RT	Connect drainage chase to existing rundown (current ditch is eroding).
2	East Road, One-way (SCHEDULE A)	1+440	Line culvert (assumed to be 24", to be verified).
2	East Road (SCHEDULE A)	Various locations	Adjust 5 manholes
3	McCullough Road (SCHEDULE A)	3+008 to 3+055 LT	Extend curb to DI on Bunker Road with concrete curb, paved ditch, and riprap around DI. This will likely require sawcutting, full depth curb, and asphalt to flare curb to DI.
4			6.56 ft (2 m) of pipe at Slacker Trail.
4			Four 18" (450 mm) flared end sections (2 at new culvert on Slacker trail and 2 at DuBois trail, both on McCullough Road).
5	Field Road (SCHEDULE A)		Top lift paving.
6		2+195 LT	Extend pipe, relocate drop inlet away from road and complete cut slope (extend ditch width approx 2+180 to 2+200).
7		2+340 RT	Install 14" (350mm) curb from Simmonds approach to existing 350 mm curb at 2+345.
8		2+587 RT	14" (350mm) concrete curb/headwall work at bus stop sidewalk.
9		2+725 LT	Remove small concrete headwall, extend culvert, add new headwall (assumed 24", to be verified).
10	Old Bunker Road (OPTION X)		Grading plan for wasting material at Fort Cronkhite Parade Ground Quarry.

East, McCullough, and Field Roads Quantities

Area #	Item #	Description	Unit	Quantity
1	60201-0800	24" (600mm) pipe culvert	LNFT	40
2	60707-0500	Lining 24" pipe culvert	LNFT	280
3	60901-1200	Curb, concrete, 14" (350mm) depth	LNFT	165
	60908-1000	Paved ditch, asphalt	LNFT	165
	25101-2000	Placed riprap, class 2	CUYD	15
4	60201-0600	18" (450mm) pipe culvert	LNFT	10
	60210-0600	End section for 18" (450mm) pipe culvert	EACH	4
5	40201-4700	Hot asphalt concrete pavement, HVEEM Test, Class B, Grading C or E	TON	1700
	40920-1000	Fog seal, emulsified asphalt grade CSS-1 or CSS-1H, SS-1 or SS-1H	TON	1.5
	41201-1000	Tack coat grade CSS-1 or CSS-1H, SS-1 or SS-1H	TON	1.5
6	60201-0600	18" (450mm) pipe culvert	LNFT	65
	60403-0000	Inlet	EACH	1
7	60901-1200	Curb, concrete, 14" (350mm) depth	LNFT	20
8	60901-1200	Curb, concrete, 14" (350mm) depth	LNFT	65
	60103-0100	Concrete, headwall for 18" (450mm) pipe culvert	EACH	1
9	60201-0800	24" (600mm) pipe culvert	LNFT	30
	60103-0140	Concrete, headwall for 24" (600mm) pipe culvert	EACH	1
10		Grading Plan	EACH	1

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	D21	D24

NOTE:
 1. Coordinate all work with the CO.
 2. Stationing callouts are from Phase 1 plans and are metric.

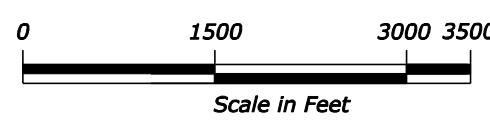


U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

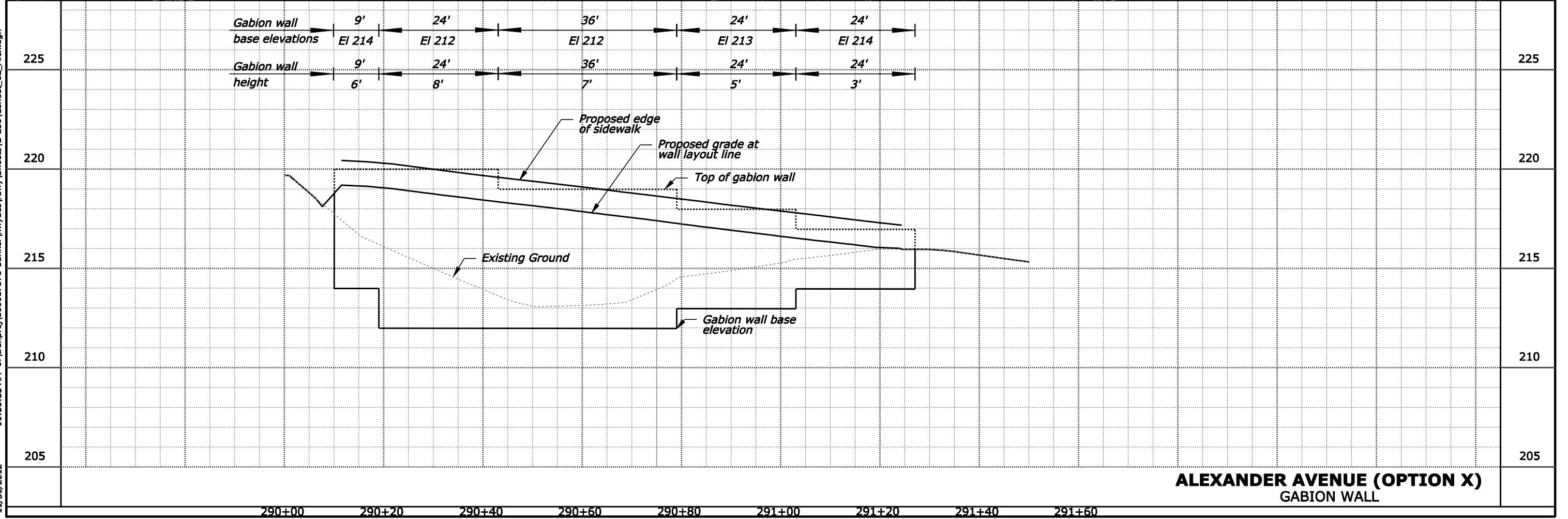
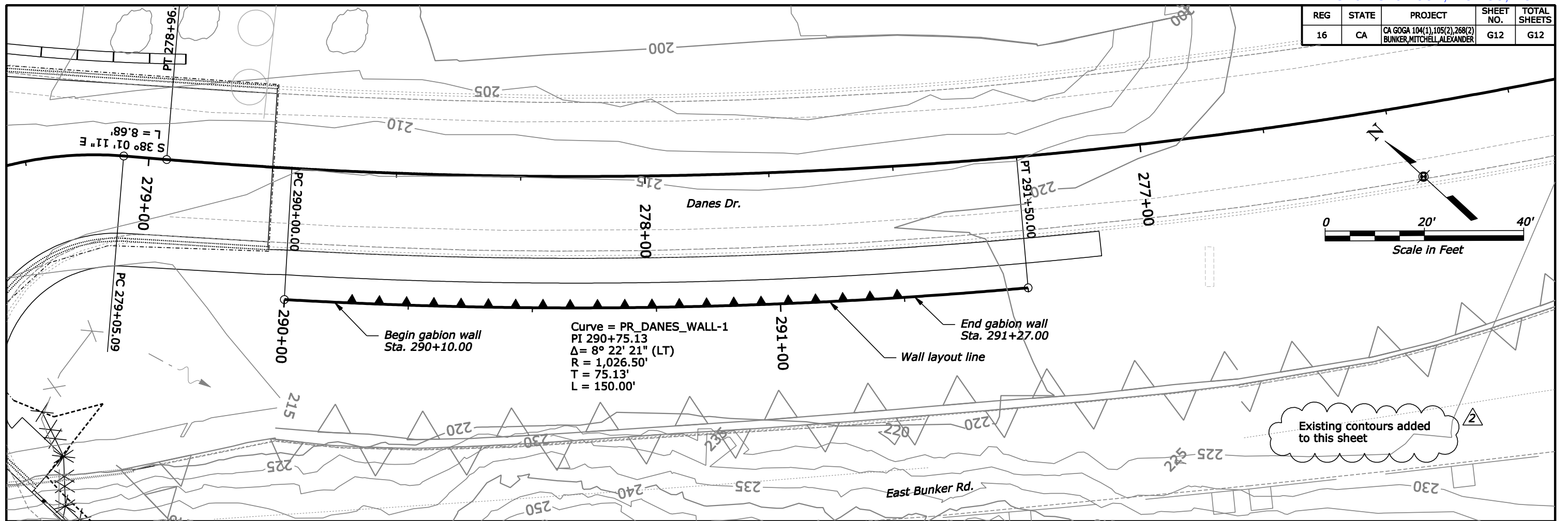
**EAST, McCULLOUGH, AND
 FIELD ROAD PLAN
 (SCHEDULE A & OPTION X)**

Sheet 1 of 1

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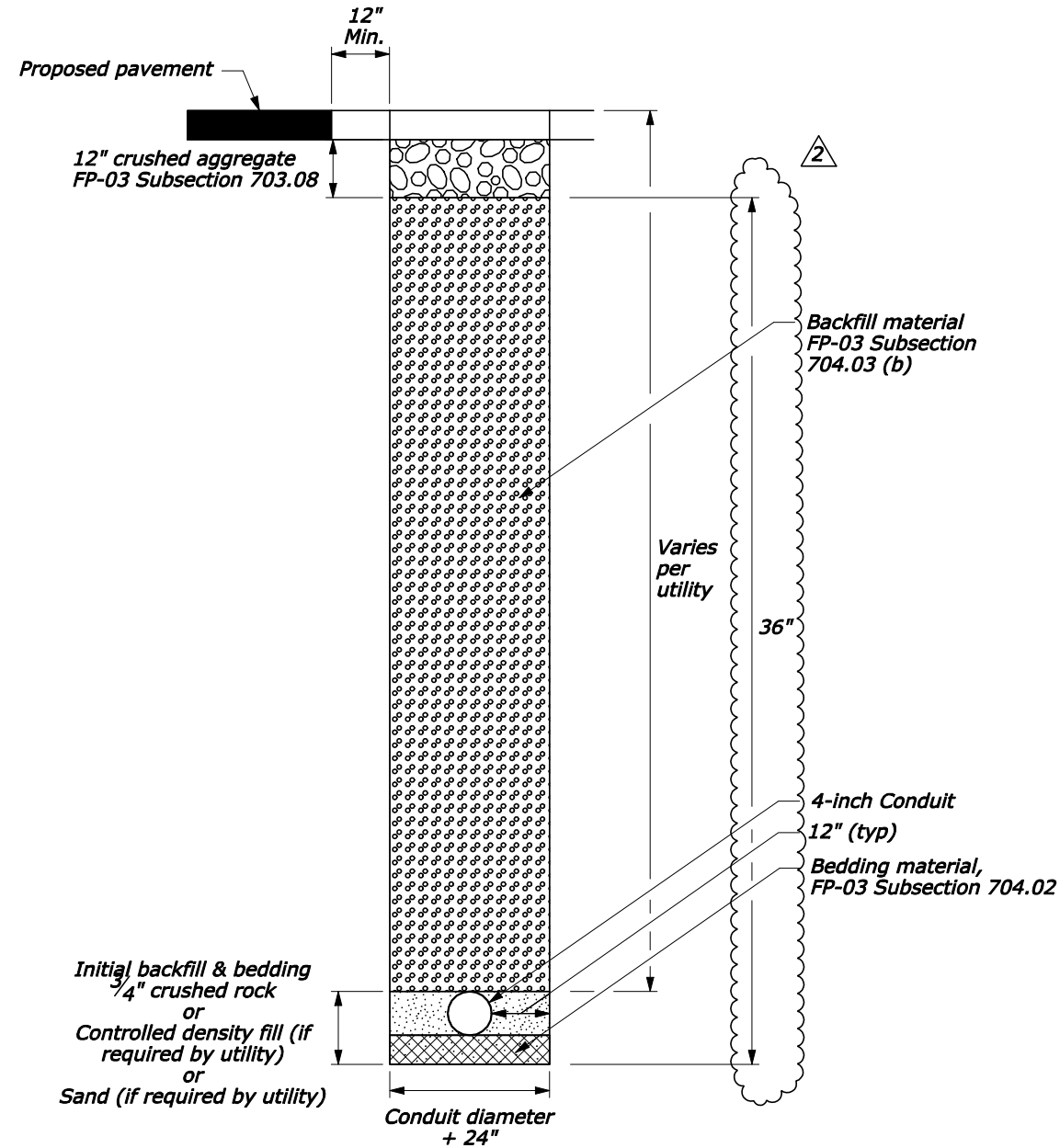
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16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	G12	G12



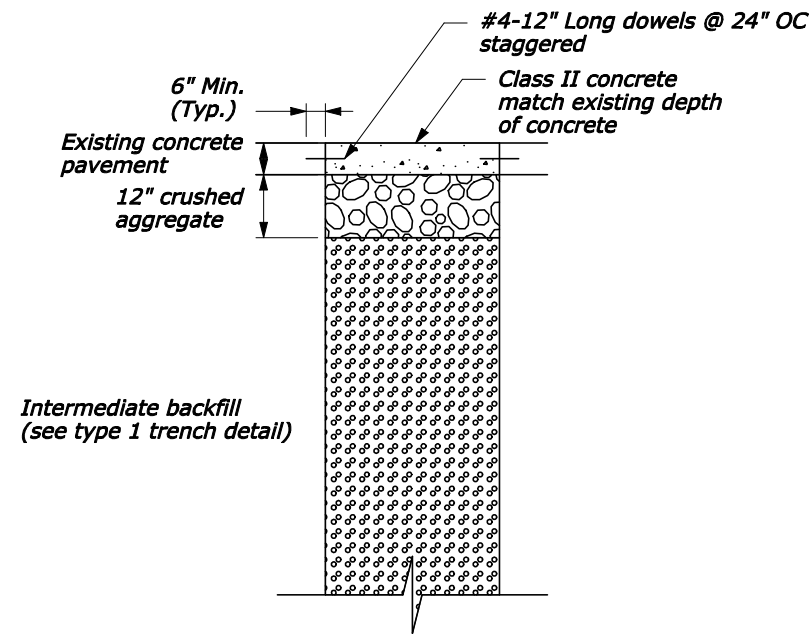
ALEXANDER AVENUE (OPTION X)
GABION WALL

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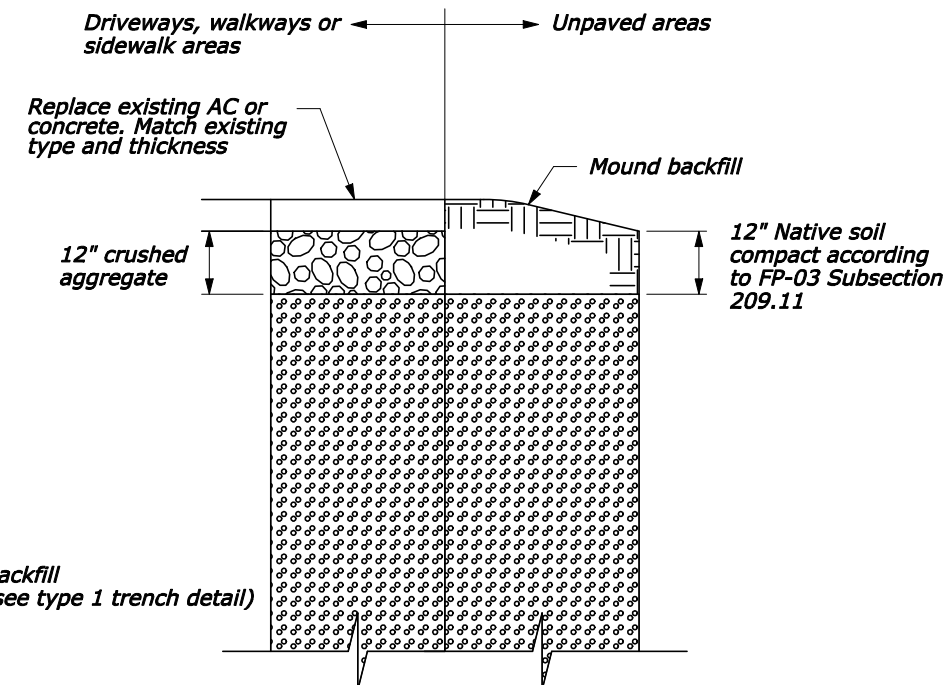
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	T60	T60



**TYPE 1
ASPHALT CONCRETE PAVED STREETS**






**TYPE 2
CONCRETE PAVED STREETS**



**TYPE 3
AREAS OTHER THAN STREETS IN
THE PUBLIC RIGHT OF WAY**

NOTES:

1. Excavate and backfill according to FP-03 Section 209.
2. Place crushed aggregate according to FP-03 Section 308.
3. See SCR Section 636.
4. Detail shown herein on special 636-F shall be used for Item 63610-2800, Conduit, 4-inch, PVC.

-  Bedding material (uncompacted)
-  Compacted backfill
-  Crushed aggregate



NO SCALE

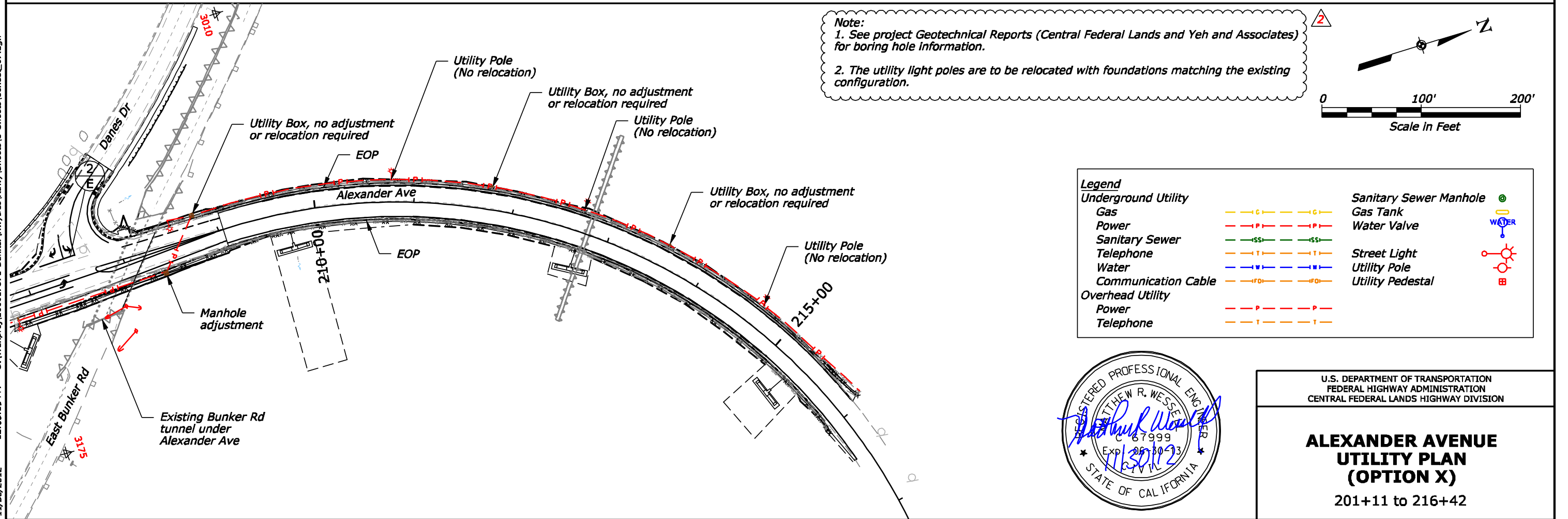
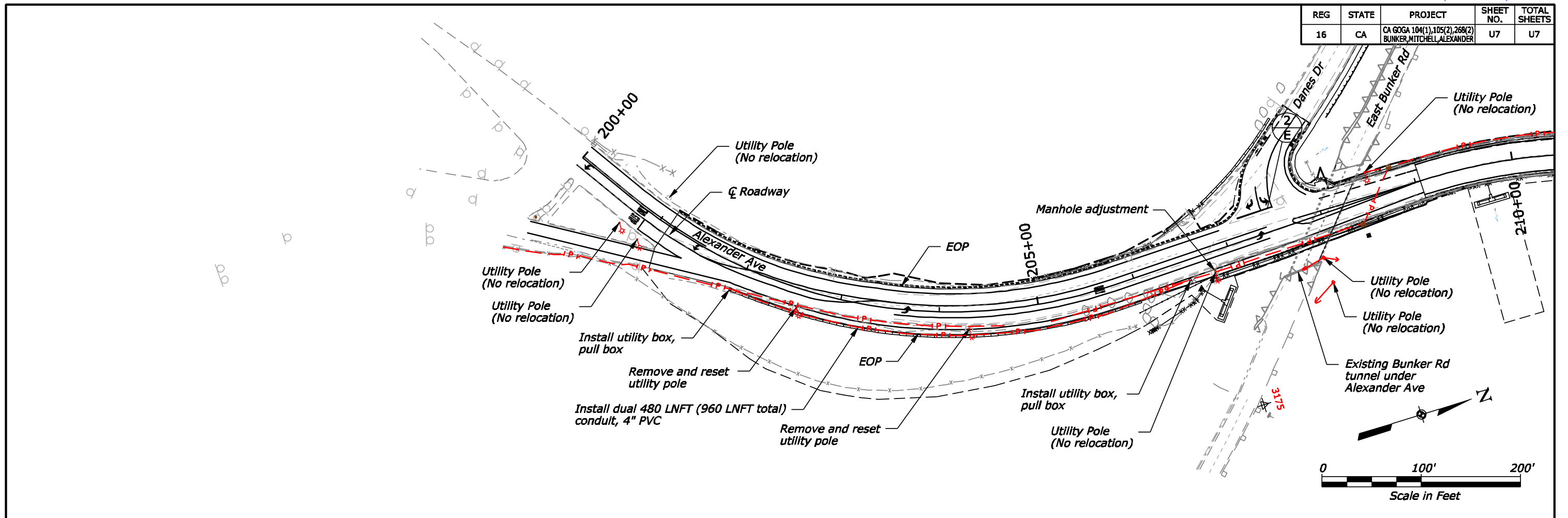
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY SPECIAL

**CONDUIT INSTALLATION
DETAIL
(SCHEDULE A & OPTION X)**

SPECIAL
636-F

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CA	CA GOGA 104(1),105(2),268(2) BUNKER, MITCHELL, ALEXANDER	U7	U7



Note:
 1. See project Geotechnical Reports (Central Federal Lands and Yeh and Associates) for boring hole information.
 2. The utility light poles are to be relocated with foundations matching the existing configuration.

Legend	
Underground Utility	Sanitary Sewer Manhole
Gas	Gas Tank
Power	Water Valve
Sanitary Sewer	Street Light
Telephone	Utility Pole
Water	Utility Pedestal
Communication Cable	
Overhead Utility	
Power	
Telephone	



U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
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**ALEXANDER AVENUE
 UTILITY PLAN
 (OPTION X)**

201+11 to 216+42

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APPENDIX A- Caltrans Encroachment Permit

ENCROACHMENT PERMIT RIDER

TR-0122 (REV 3/92)

Collected by	Permit No. (Original) 0412-NMC0254
Rider Fee Paid	Dist/Co/Rte/PM 04-Mrn-101 R000.32
Date May 25, 2012	Rider Number 0412-NRT0918

TO: [] FHWA-CFLHD
12300 W. Dakota Avenue, Suite 360
Lakewood, CO 80228

Attn: Nathan Allen

[] Phone: (720) 963-3668

[] , PERMITTEE

In compliance with your request of May 24, 2012, we are hereby amending the above numbered encroachment permit as follows:

Reference your project to: Reconstruct 290 linear feet of existing Alexander Avenue in existing right-of-way on State Hwy 101, Post Mile R000.32, in the City of Sausalito, in Marin County.

Date of completion extended to: December 31, 2014.

Except as amended, all other terms and provisions of the original permit shall remain in effect.

RF
cc WHauke (2), Biranpour
DTM-PChan
TMC-JRichardson

APPROVED:

BIJAN SARTIPI, District Director

BY:


MICHAEL D. CONDIE, District Permit Engineer

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT

TR-0120

Permit No. 0412-NMC0254	
Dist/Co/Rte/PM 04-Mrn-101 R000.32	
Date March 29, 2012	
Fee Paid \$	Deposit \$
Performance Bond Amount (1) \$	Payment Bond Amount (2) \$
Bond Company	
Bond Number (1)	Bond Number (2)

In compliance with (*Check one*):

- Your application of February 10, 2012
- Utility Notice No. _____ of _____
- Agreement No. _____ of _____
- R/W Contract No. _____ of _____

TO: FHWA-CFLHD
 12300 W. Dakota Avenue, Suite 360
 Lakewood, CO 80228

Attn: Nathan Allen
 Phone: (720) 963-3668

_____, PERMITTEE

and subject to the following, **PERMISSION IS HEREBY GRANTED** to:

Reconstruct 290 linear feet of existing Alexander Avenue in existing right-of-way on State Hwy 101, Post Mile R000.32, in the City of Sausalito, in Marin County.

A minimum of one week prior to the start of work under this permit, notice shall be given and advance approval of construction detail, operations, public safety, and traffic control shall be obtained from State Representative Bahram Iranpour, 611 Payran Street, Petaluma, CA 94952, (707) 762-5540 weekdays between 7:30 AM and 4:15 PM, holidays excluded.

All permitted work requires the permittee to apply for and obtain a work authorization number prior to start of work. See the attached "Encroachment Permit Work Scheduling Procedures" and the attached "Encroachment Permit Work Scheduling Request Form". Additional time beyond the minimum seven-day advance notice required in the above paragraph may be required for obtaining the traffic control approval.

The following attachments are also included as part of this permit (*Check applicable*):

- Yes No General Provisions
 Yes No Utility Maintenance Provisions
 Yes No Storm Water Special Provisions
 Yes No A Cal-OSHA permit required prior to beginning work:
 # _____

In addition to fee, the permittee will be billed actual costs for:

- Yes No Review
 Yes No Inspection
 Yes ----- Field Work

(If any Caltrans effort expended)

Yes No The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before September 30, 2012

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.
 No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

RF
 cc: WHauke (2) BIranpour
 DTM-PChan
 TMC-JRichardson

APPROVED:

BIJAN SARTIPI, District Director

BY:



MICHAEL D. CONDIE, District Permit Engineer

NAME: FHWA-CFLHD
PERMIT #: 0412-NMC0254
DATE: March 29, 2012.

In addition to the attached General Provisions, form TR-0045 (REV. 05/07); the following Special Provisions are applicable:

All utility work shall be performed in accordance with the appropriate provisions contained in the Department of Transportation Encroachment Permit Utility and Tree Trimming Special Provisions dated July 2009.

Immediately following completion of the work permitted herein, the Permittee shall fill out and mail the Notice of Completion attached to this permit.

Any expenses incurred by the State in surveying the right of way line to assist in proper relocation of the fence shall be billed to permittee at the end of the work.

The site of the work shall be enclosed by suitable barricades, signs and lights, as approved by State's representative, to warn and protect traffic effectively.

No lane closures permitted anytime within Caltrans right of way.

No ramp closures permitted anytime within Caltrans right of way.

Shoulders may be closed while work is actually in progress anytime except between 6-9 am and 3-7 pm, M-F, holidays excluded. No shoulder closures permitted any other time.

If an accident or other incident (related to or not related to the permitted activity) occurs within, or close to the permitted activity, the permittee shall immediately stop work and remove traffic controls from the highway unless public health, welfare and safety is endangered by unfinished work. Only traffic control to protect open excavations may remain in place. After free traffic flow is restored, work in accordance with the conditions of the permit may be returned.

Pavement to be removed shall be saw cut to a minimum depth of 10 cm (4 inches) to provide a neat and straight pavement break along both sides of trench. Asphalt concrete (AC) pavement shall be saw cut to the full depth.

Any excavation within 3.1 meters (10 ft.) of the traveled way shall be protected by Type K barrier railing placed at a 10:1 taper or as otherwise directed by the State's representative. Any Type K barrier railing placed within 3.1 meters (10 ft.) of the traveled way shall have one appropriate reflective marker affixed to the top of each section. A Type "P" objects marker shall be installed in front of the approach end section.

No excavation shall be left open overnight without written permission from the Caltrans representative or unless otherwise specified herein.

Thickness and type of asphalt concrete shall match existing condition. Cut shall be performed by saw cut only. Entire slurry material from saw cut to be vacuumed.

Trench restoration shall conform to the attached details.

Permittee shall contact State's representative before placing structural section materials for the roadway pavement.

Cement slurry backfill complying with Section 19-3.062 of the current Caltrans Standard Specifications may be used under all paved surfaces.

Traffic striping, pavement markings and signs shall be furnished and placed by the permittee and the cost shall be borne by the permittee. Where new asphalt concrete has been placed, temporary painted striping and pavement markings shall be installed within 24 hours. After 30 days curing time, thermoplastic materials shall be applied in compliance with Section 84 of the Standard Specifications.

The culvert pipe shall be installed in the flow line of the existing drainage ditch at an elevation to provide maximum drainage.

NAME: FHWA-CFLHD
PERMIT #: 0412-NMC0254
DATE: March 29, 2012.

Permittee shall be responsible for all compliance with the Caltrans Storm Water Program and Caltrans NPDES permit requirements. See the Storm Water Special Provisions attached to this permit.

Any change or damage to any existing facilities, landscaping, irrigation or drainage pattern, whether occasioned by increase or diversion, and the cost of any damage, repairs or restoration within the State's right of way shall be the responsibility of the permittee.

All disturbed soil and vegetation shall be restored to original condition.

No dirt tracking onto the pavement.

The use of blower is prohibited on Caltrans right of way.

All permittee's personnel shall wear appropriate personal protective equipment, including hard hats and bright-colored vests, shirts or jackets with retro-reflective material, while on State Highway right of way.

Upon completion of the work provided herein, the permittee shall send one set of reproducible "As-Built" plans, either matte finish drafting film or good quality Xerox 2080 vellum, to: Office of Permits, Department of Transportation, P. O. Box 23660, Oakland, CA 94623-0660. No type of Sepia reproducible is acceptable including Mylar.

Changes to the Plans, Specifications, and Permit Provisions are not allowed without prior approval from the State Representative.

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV. 05/2007)

1. **AUTHORITY:** The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.
2. **REVOCAION:** Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
4. **ASSIGNMENT:** No party other than the permittee or permittee's authorized agent is allowed to work under this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.
6. **BEGINNING OF WORK:** When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."
8. **PLAN CHANGES:** Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.
9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).
12. **PERMITS FROM OTHER AGENCIES:** This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 4' shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.09 Public Safety of the Department Standard Specifications.
14. **PUBLIC TRAFFIC CONTROL:** As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. While providing traffic control, the needs and control of all road users [motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA)] shall be an essential part of the work activity.

Day and night time lane closures shall comply with the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control), Standard Plans, and Standard Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the California Manual on Uniform Traffic Control Devices (Chapter 6E, Flagger Control).
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this specific encroachment permit. If Encroachment Permit Special Provisions allow for the storage of equipment or materials within the State right of way, the equipment and material storage shall comply with Standard Specifications, Standard Plans, Special Provisions, and the Highway Design Manual. The clear recovery zone widths must be followed and are the minimum desirable for the type of facility indicated below: freeways and expressways - 30', conventional highways (no curbs) - 20', conventional highways (with curbs) - 1.5'. If a fixed object cannot be eliminated, moved outside the clear recovery zone, or modified to be made yielding, it should be shielded by a guardrail or a crash cushion.
17. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN RIGHT OF WAY:** Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.).

19. **RIGHT OF WAY CLEAN UP:** Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.
20. **COST OF WORK:** Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.
21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.
22. **AS-BUILT PLANS:** When required, permittee shall submit one (1) set of folded as-built plans within thirty (30) days after completion and approval of work in compliance with requirements listed as follows:
1. Upon completion of the work provided herein, the permittee shall send one vellum or paper set of As-Built plans, to the State representative. Mylar or paper sepia plans are not acceptable.
 2. All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
 3. The plans are to be stamped or otherwise noted AS-BUILT by the permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a State stamp, or Caltrans representative signature, shall be used for producing the As-Built plans.
 4. If As-Built plans include signing or striping, the dates of signing or striping removal, relocation, or installation shall be shown on the plans when required as a condition of the permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage shall show the removal, relocation or installation dates of the appropriate staged striping and signing.
 5. As-Built plans shall contain the Permit Number, County, Route, and Post Mile on each sheet.
 6. Disclaimer statement of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code, shall not be included on the As-Built plans. Such statements constitute non-compliance with Encroachment Permit requirements, and may result in the Department of Transportation retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future permits, or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.
24. **BONDING:** The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the permittee shall comply with said notice at his sole expense.
26. **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.
28. **RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.
- The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

29. **NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**
A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that:
1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the right of way.
4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A, Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
5. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.

31. **MAINTENANCE OF HIGHWAYS:** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.
32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

The permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

33. **PRIVATE USE OF RIGHT OF WAY:** Highway right of way shall not be used for private purposes without compensation to the State.

The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.

34. **FIELD WORK REIMBURSEMENT:** Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.
35. **NOTIFICATION OF DEPARTMENT AND TMC:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The permittee, upon notification by the Department's representative, shall immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension shall be borne by the permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including, but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.



Encroachment Permit Work Scheduling Request Form

Submit request to schedule traffic control weekly, 7 days in advance, using this form. Submit to Permit Duty Station by FAX, 510-286-3960, or E-mail: *Permit_Duty_Engineer@dot.ca.gov*. **Reminder!** - Notify Inspector listed on page 1 or 2 of your Permit. Check Permit Special Provisions for authorized work hours. Any deviation from the Permit must be requested in writing. **INSTRUCTIONS AND ABBREVIATIONS:** See Procedures on reverse of this form (page 2).

- 1. Permit No.: _____ 2. Expiration Date: _____ 3. Request Date: _____
- 4. Caltrans Inspector: _____ 5. Requested Work Week: _____ to _____
- 6. Route: _____ 7. County: _____ 8. City or township: _____
- 9. PostMiles or Kilopost: From: _____ To: _____ 10. Existing Lanes (in each Dir): Dir _____ Lns _____ / Dir _____ Lns _____
- 11. Describe Location (use landmark if necessary): From: _____ To: _____
- 12. Name of Conventional Highway or Surface St: _____
- 13. (a through k) Fill in or 'x' if applicable: (a) Divided Hwy or Undivided Hwy (b) Full-Closure 1 dir or both dir
 (c) One-way Traffic Control: Only on "Undivided" Hwy (Alternate use of same lane for both directions--hold trfc 5-10 min w/flaggers)
 (d) Connector Ramp: (State Highway #) _____ to (State Highway #) _____ Closed or Lane # _____
 (e) Off/ramp: (Freeway to City St) Ramp Name: _____ Off/ramp Closed or Lane #: _____
 (f) On/ramp: (City St to Freeway) Ramp Name: _____ On/ramp Closed or Lane #: _____
 (g) Divert Trfc or Contra Flow: Reconfigure lanes/divert trfc to Lane# _____ in the _____ Direction; _____ Lane(s) open ea direction.
 (h) Intermittent Traffic Control (i) Various Locations (j) Long-Term (24+ hours continuous) ETO

(k) Year:		Time		Dir		* * * * * Restricted Lanes * * * * *														Brks		Closure ID#		
From DATE	To DATE	DAY(S) SU-M-T-W-TH-F-SA	24-HR CLOCK		NB	SB	Full Closure See Detour	SHLDR		1	2	3	4	5	6	V L	Aux or Coll	CD or Med	TURN PCKT(S)		Park Strip	5 to 15 Min	Roll -ing	Caltrans will complete & return
			Start (10-97)	Finish (10-98)				EB	WB										L	R				

- 14. Description of work/comments: _____
- 15. Detour (Required for full closure): _____
- 16. Contingency Plan: _____
- 17. On-site during work (circle if applicable) CHP / PD / Other: _____

18. Name:	Permittee:	Contractor (if different than permittee):
Address:		
On-site Personnel Contact Name(s) & Phone No.	Name:	Name:
	Office:	Office:
	Cell:	Cell:
	FAX:	FAX:

19. **"REAL-TIME" STATUS INSTRUCTIONS - PLEASE MAKE YOUR FIELD PERSONNEL AWARE & RESPONSIBLE!**
 Permittee shall STATUS scheduled work DAILY via Caltrans 24-Hour Communication Center at 510-286-6359. Status using Closure ID No(s) at the start of work, (10-97), and again when work is finished for the day, (10-98). To cancel (10-22), phone 510-286-6359 or fax to 510-286-6358 before the scheduled 10-97 time, but no later than 1 hour prior to the scheduled 10-98 time. Any delay in picking up your closure must be reported immediately to 510-286-6359 or Permit Inspector. See item 9 on reverse/page 2.



ENCROACHMENT PERMIT WORK SCHEDULING PROCEDURES

INSTRUCTIONS: Fill in blanks or check appropriate boxes. Attach maps or diagrams, if available. Enter **beginning day through ending day of work week** (M-T-W-TH-F-SA-SU). **Month/Day:** Enter month (1-12) and day (1-31) of requested week. **Start & Finish Time:** Use 24 hour clock format. **Read page 2** of your Permit Special Provisions for **hours & days allowed**. Separate lane closure #'s are required for each direction and facility. Use separate line for each. **Lanes are numbered in direction of travel from left to right**, excluding turn pockets; left being #1 or "fast lane". Check boxes under **RESTRICTED LANES** to indicate lanes or parts of highway to be closed. "VL"(Various Lanes) may be checked with note in Comments Section stating number of lanes to remain open at all times.

ABBREVIATIONS: Aux=auxiliary, CD=Center Divide; Coll=Collector; Conn=Connector; Contra Flow=Close 1 direction of traffic and divert to lane(s) in opposite direction or a turn lane. **Day of Week**=(M-T-W-TH-F-SA-SU); **Dir**=Direction (NB=North, SB=South, WB=West, or EB=East); F/L=fog line; Lns=Lanes; L=Left; Med= Median; Off/R=Off-Ramp; On/R=On-Ramp; Park Strip=Parking area parallel to lane; Pckt=Pocket; Roll=Rolling (for closure such as sweeping); R=Right; Shldr=Shoulder; SR=State Route; V/L=Various Lanes; V/Loc=Various Locations.

Requests for scheduling shall be submitted on this form via FAX to 510-286-3960, or, via E-Mail to Permit_Duty_Engineer@dot.ca.gov, or, through the designated State Representative (page 1 of permit).

All permitted work (with or without traffic control) is subject to advance scheduling on this form, seven (7) days in advance of the work week requested. Submittals and approvals shall continue on a weekly basis.

If work begins weekly on Sunday, the work week shall be Sunday through Saturday. If work week begins on Monday, the work week shall be Monday through Sunday.

Incomplete, illegible, or inaccurate requests may be returned for correction. Assistance for completing the request may be obtained from the designated State Representative.

Every attempt will be made to return timely requests with closure ID or work authorization numbers, to the Permittee by close of business on Thursday, prior to the scheduled work week. When deemed necessary to ensure public convenience, Caltrans may deny and/or reschedule the request.

All requests must include a contingency plan for restoring public traffic (i.e. reopening of a closed lane, ramp and/or shoulder) in the event of (1) CHP or the local authority requires opening due to an unforeseeable incident in the nearby vicinity, or (2) permitted experiences an equipment breakdown, shortage of or lack of production materials or any other failure which would otherwise delay restoring public convenience within the time limits specified in the permit. The contingency plan shall include availability of any proposed standby equipment and stockpiled materials that can be utilized for the immediate opening of closures when ordered by the State representative. Acceptance of the contingency plan by the Engineer shall not relieve the Contractor from the requirement of opening the restricted travel way to accommodate public traffic as specified in the lane closure hour's section of the permit provisions.

Caltrans will review and process the request by entering all information into the State-wide Lane-Closure System (LCS). This process generates a work authorization number*. This number will be entered on the request form and returned to Permittee at approval to proceed AND will be used to "Real-Time Status" on a daily basis. Permittee shall communicate with Caltrans 24 hour District Communication Center (DCC) via telephone at 510-286-6359 twice daily when working, or once daily if cancelled.

- a. When work begins (first cone down), Permittee shall contact Caltrans DCC and relay: "Closure ID #* is 10-97".
- b. When work ends (last cone removed), Permittee shall contact Caltrans DCC and relay: "Closure ID #* is 10-98".
- c. If the work is cancelled on any scheduled day, Permittee shall contact Caltrans DCC and relay: "Closure ID #* is 10-22". A "10-22" (cancellation) can be phoned at anytime before the scheduled "10-97" time, but no later than 1 hour prior to scheduled "10-98" time. You may be asked to fax confirmation of "10-22" to the DCC FAX at 510-286-6358.
- d. During the work, any unexpected occurrences including delayed openings, accidents, etc., shall be communicated to Caltrans DCC @ 510-286-6359, immediately.

Avoid possible miscommunication when calling status. Use the PHONETIC ALPHABET to state your Closure ID:
= Adam, B = Boy, C = Charles, D = David, E = Edward, F = Frank, G = George, H = Henry, I = Ida, J = John, K = King,
= Lincoln, M = Mary, N = Nora, O = Ocean, P = Paul, Q = Queen, R = Robert, S = Sam, T = Tom, U = Union, V = Victor,
W = William, X = X-ray, Y = Yellow, Z = Zebra. Example: P82CA="Paul 82 Charles Adam"

The intent of these procedures is to help ensure public convenience by identifying planned closures on the State Highway system, resolving potential conflicts, and disseminating all available "REAL-TIME" information, via the traffic media to all motorists, including but not limited to the public, CHP, local police and sheriffs' office, and emergency fire and rescue personnel.

"closure ID number" is the same as "work authorization number"

1. GENERAL: The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP) that would require a waste discharge identification number or coverage under the California Construction General Permit (*Order No. 2009-0009-DWQ, NPDES No CAS000002*). The Permittee shall comply with the following Special Provisions and the direction of the State Representative:

2. NPDES REQUIREMENTS: The Permittee shall be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements. It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices before performing daily work activities. Installation and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, and 9) illicit connection, illegal discharge detection and reporting. The Permittee shall report to the state representative when discharges enter into receiving waters or drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee shall also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency shall be provided to the State representative within 48 hours of reported activity. For additional information on storm water compliance, visit the State Water Resources Control Boards storm water Website at http://www.waterboards.ca.gov/water_issues/programs/stormwater

3. RESPONSIBILITY FOR DEBRIS REMOVAL: The Permittee shall be responsible for preventing all dirt, trash, debris, and other construction waste from entering storm drains, local creeks, or any other bodies of water.

4. SPOILS AND RESIDUE: The Permittee shall vacuum or sweep any saw-cut spoils, debris, residue, etc. No spoils, debris, residue, etc. shall be washed into a drainage system.

5. SWEEPING: Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material into the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective. Roadways or work areas shall not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of the State of California standard specifications for construction (most current version)
<http://www.dot.ca.gov/hq/esc/oe/specifications/SSPs/2010-SSPs/>.

6. VEHICLES AND EQUIPMENT: Permittee shall prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways.

7. MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT: Maintenance and fueling of equipment shall not result in any pollution at the job site. The Permittee shall immediately clean up spills, and properly dispose of contaminated soil and materials.

8. CLEANING VEHICLES AND EQUIPMENT: The Permittee shall clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc. shall be used in State right of way. Any water from this operation shall be collected and disposed of at an appropriate site. Fueling, washing, maintaining and washing vehicles or equipment in outside areas must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain.

9. DIESEL FUELS: The use of diesel fuel as a form-oil or solvent is not allowed.

10. WEATHER CONDITIONS AT WORKSITE: Any activity that would generate fine particles or dust that could be transported off site by stormwater shall be performed during dry weather.

11. HOT MIX ASPHALT: Runoff from washing hot mix asphalt shall not enter into any drainage conveyances.

12. PROTECTION OF DRAINAGE FACILITIES: The Permittee shall protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of the State of California standard specifications for construction (most current version). No such protection measures shall cause an obstruction to the traveling public. The Permittee shall implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site in accordance to section 13-4.03B(1-3) Spill Prevention and Control, Water Pollution Control, of the State of California standard specifications for construction (2010 version).

13. PAINT: Rinsing of painting equipment and materials is not permitted in state right-of-way. When thoroughly dry, dispose of the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner shall be disposed of at an approved hazardous waste site.

14. CONSTRUCTION MATERIALS: Stockpile of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, shall conform to section 13-4.03C Stockpile Management, Water Pollution Control, of the State of California standard specifications for construction (2010 version). Stored materials shall not reach a storm drain.

15. CONCRETE EQUIPMENT: Concrete equipment shall be washed in a designated washing area that prevents effluent from discharging to drainage conveyances.

STORM WATER SPECIAL PROVISIONS for MINIMAL or NO IMPACT
TR-0400 (Rev 10/2011)

16. EXISTING VEGETATION: Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation shall be replaced as directed by the State Representative.

17. SOIL DISTURBANCE: Soil disturbing activities shall be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures shall be implemented.

18. SLOPE STABILIZATION AND SEDIMENT CONTROL: In cases where slopes are disturbed during construction, soil shall be secured with soil stabilization and sediment control measures. Fiber rolls or silt fences may be required downslope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height.

19. STOCKPILES: Sand, dirt, and similar materials shall be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and shall be covered and protected with a temporary perimeter sediment barrier.

20. DISCOVERY OF CONTAMINATION: The State Representative shall be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.

21. SANITARY AND SEPTIC WASTE: Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when using an on-site disposal system.

22. LIQUID WASTE: Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other nonstorm water liquids not covered under separate waste water permits shall be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal.

23. WATER CONTROL AND CONSERVATION: Manage water use in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Direct runoff water, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with job site water.

24. PILE DRIVING: Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from storm water run-on when not in use.

25. DEWATERING: Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering

operations shall comply with the latest Caltrans guidelines. Any effluent discharged into any storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee shall provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.01B Submittals, Water Pollution Control, of the State of California standard specifications for construction (2010 version). A copy of the Waste Discharge Permit and a copy of a valid WDD number issued by the Regional Board shall be provided to the State representative.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMITS UTILITY & TREE TRIMMING SPECIAL PROVISIONS

**For Work on
California
State Highway
Rights of Way**



Developed by the Encroachment Permit Branch,
Caltrans Headquarters, Traffic Operations, July 2009

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STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV. 05/2007)

1. **AUTHORITY:** The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
4. **ASSIGNMENT:** No party other than the permittee or permittee's authorized agent is allowed to work under this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.
6. **BEGINNING OF WORK:** When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."
8. **PLAN CHANGES:** Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.
9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).
12. **PERMITS FROM OTHER AGENCIES:** This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 4' shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.09 Public Safety of the Department Standard Specifications.
14. **PUBLIC TRAFFIC CONTROL:** As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. While providing traffic control, the needs and control of all road users [motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA)] shall be an essential part of the work activity.

Day and night time lane closures shall comply with the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control), Standard Plans, and Standard Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the California Manual on Uniform Traffic Control Devices (Chapter 6E, Flagger Control).
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this specific encroachment permit. If Encroachment Permit Special Provisions allow for the storage of equipment or materials within the State right of way, the equipment and material storage shall comply with Standard Specifications, Standard Plans, Special Provisions, and the Highway Design Manual. The clear recovery zone widths must be followed and are the minimum desirable for the type of facility indicated below: freeways and expressways - 30', conventional highways (no curbs) - 20', conventional highways (with curbs) - 1.5'. If a fixed object cannot be eliminated, moved outside the clear recovery zone, or modified to be made yielding, it should be shielded by a guardrail or a crash cushion.
17. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN RIGHT OF WAY:** Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.).

19. **RIGHT OF WAY CLEAN UP:** Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.

20. **COST OF WORK:** Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.

21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.

22. **AS-BUILT PLANS:** When required, permittee shall submit one (1) set of folded as-built plans within thirty (30) days after completion and approval of work in compliance with requirements listed as follows:

1. Upon completion of the work provided herein, the permittee shall send one vellum or paper set of As-Built plans, to the State representative. Mylar or paper sepia plans are not acceptable.
2. All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
3. The plans are to be stamped or otherwise noted AS-BUILT by the permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a State stamp, or Caltrans representative signature, shall be used for producing the As-Built plans.
4. If As-Built plans include signing or striping, the dates of signing or striping removal, relocation, or installation shall be shown on the plans when required as a condition of the permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage shall show the removal, relocation or installation dates of the appropriate staged striping and signing.
5. As-Built plans shall contain the Permit Number, County, Route, and Post Mile on each sheet.
6. Disclaimer statement of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code, shall not be included on the As-Built plans. Such statements constitute non-compliance with Encroachment Permit requirements, and may result in the Department of Transportation retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future permits, or a provision requiring a public agency to supply additional bonding.

23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.

24. **BONDING:** The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that

project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.

25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the permittee shall comply with said notice at his sole expense.

26. **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.

27. **PREVAILING WAGES:** Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.

28. **RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

29. **NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**
A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that:
1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
 2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
 3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the right of way.
 4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A, Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
 5. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.

31. **MAINTENANCE OF HIGHWAYS:** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.
32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

The permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

33. **PRIVATE USE OF RIGHT OF WAY:** Highway right of way shall not be used for private purposes without compensation to the State.

The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.

34. **FIELD WORK REIMBURSEMENT:** Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.
35. **NOTIFICATION OF DEPARTMENT AND TMC:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The permittee, upon notification by the Department's representative, shall immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension shall be borne by the permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including, but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT UNDERGROUND UTILITY PROVISIONS
 TR - 0163 (Rev. 05/2006)

Highway and Freeway encasement requirements for Transverse crossings of Utility installations, installed by the following methods. The pavement or roadway shall not be open-cut unless specifically allowed under a "UT" permit. Utility installations shall not be installed inside of culverts or drainage structures.

The installation of Uncased High Pressure Natural Gas pipelines, on a case by case basis may be allowed, when in compliance with TR-0158 Special Provisions, "Exception to Policy" for Uncased High Pressure Natural Gas Pipelines.

Encasement Requirements based on: Installation Method, Type of Highway Facility and Material Transported in carrier.						
Facility Type	Bore and Jack		Directional Drilling		Trenching	
	Frwy/Expwy	Conventional	Frwy/Expwy	Conventional	Frwy/Expwy	Conventional
High Risk (Section 605)	Encase	Encase	Encase	Encase	Encase	Encase
Low Risk (Section 605)	Encase	Encase	Encase	Encase	Encase	Optional
Exempt Facilities (Section 605)	Encase	Encase	Optional	Optional	Optional	Optional
Pressurized Fluids	Encase	Encase	Encase	Encase	Encase	Encase
Natural Gas Lines Minimum 7.5' Depth (Appendix H)	Optional	Optional	Optional	Optional	Optional	Optional
Gravity Flows	Encase	Encase	Encase	Encase	Optional	Optional

Note: "Optional" means at the option of the District Permit Engineer. ~~Transverse Crossings require encasement.~~

UG 1. CASINGS:

Casings should be steel conduit with a minimum inside diameter sufficiently larger than the outside diameter of the pipe or ducts to accommodate placement and removal. The casing can be either new or used steel pipe, or an approved connector system. Used pipe shall be pre-approved by the Department's engineer or representative before installation.

When the method of Horizontal Directional Drilling is used to place casing, the use of High Density Polyethylene Pipe (HDPE) as casing is acceptable. In specific instances the approval of Headquarters Office of Encroachment Permits, may be required.

Reinforced Concrete Pipe (RCP) in compliance of State Standard Specifications is an acceptable carrier for storm drain gravity flow or non-pressure flow. RCP when installed by Bore & Jack shall have rubber gaskets at the joints, and holes for grouting of voids left by jacking operations, see "E" below.

- A. All pipes 6" or larger in diameter, or placement of multiple pipes or ducts, regardless of diameters, shall require encasement.
- B. Minimum wall thickness for steel pipe casing for different lengths and diameters of pipes are as follows:

Casing Pipe (Diameter)	Minimum Wall Thickness	
	Up to 150 ft (Length)	Over 150 ft (Length)
6" to 28"	1/4"	1/4"
30" to 38"	3/8"	1/2"
40" to 60"	1/2"	3/4"
62" to 72"	3/4"	3/4"

- C. Spiral welded casing is authorized provided the casing is new and the weld is smooth.
- D. The ends of the casing shall be plugged with ungrouted bricks or other suitable material approved by the Department's representative.
- E. When required by the Department's representative, the permittee shall at his expense, pressure grout the area between the pavement and the casing from within the casing in order to fill any voids caused by the work covered under this permit. The increments for grout holes inside the pipe shall be 8' staggered and located 22-1/2 degrees from vertical axis of the casing. Pressure shall not exceed 5 psig for a duration sufficient to fill all voids.
- F. The installation of multiple casings shall be installed with a minimum of 1-1/2 diameter clearance between casings, but not less than 18". The clearance between casings crossing freeways shall be two (2) diameters minimum, but not less than 24".
- G. The casings placed within freeway right-of-way shall extend to the access control lines.
- H. Wing cutters, if used, shall be a maximum of 1" larger than the casing. Voids caused by the use of wing cutters shall be grouted in accordance with "E" above.
- I. A band welded to the leading edge of the casing should be placed square to the alignment. The band should not be placed on the bottom edge. Flaring the lead section on bores over 100' shall not be permitted.
- J. All casing lengths shall equal to the auger length.
- K. The casings within conventional highways shall extend 5' beyond the back of curb or edge of pavement, or to the right of way line if less. Where PCC cross-gutter exists, the casing shall extend at least 5' beyond the back of the cross-gutter, or to the right of way line if less.

Bore and receiving pits shall be:

- A. Located at least 10' or more from the edge of pavement on conventional highways in rural areas.
- B. Located 5' behind the concrete curb or AC dike on conventional highways in urban areas.
- C. Located 5' outside the toe of slope of embankment areas.
- D. Located outside freeway right of way.
- E. Adequately fenced and/or have a Type-K barrier placed around them.
- F. Adequately shored in accordance with Cal-OSHA requirements. Shoring for jacking and receiving pits located within 15' of traffic lanes on a State highway shall not extend more than 36" above the pavement grade unless otherwise authorized by Department's representative. Reflectors shall be affixed to the shoring on the sides facing traffic. A 6' chain link fence shall be installed around the perimeter of the pits during non-working hours.
- G. All pits should have crushed-rock and sump areas to clear groundwater and water used to clean the casing. Where ground water is found and pumping is required, the pits shall be lined with filter fabric.

**UG 2. DIRECTIONAL DRILLING:
Bore and Receiving Pits**

When directional drilling is the approved method for pipe installation, drilling plans shall contain information listed as follows:

- 1. Location of: entry and exit point, access pit, equipment, and pipe staging area.
- 2. Proposed drill path alignment (horizontal and vertical).
- 3. Location and clearances of all other facilities.
- 4. Depth of cover.
- 5. Soil analysis.*
- 6. Carrier pipe length, diameter, thickness, and material (HDPE/steel) and ream pipe diameter.
- 7. Detailed carrier pipe calculations confirming ability to withstand installation loads and long term operational loads including H2O.
- 8. Proposed drilling fluid composition, viscosity, and density (based on soils analysis).
- 9. Drilling fluid pumping capacity, pressures, and flow rates
- 10. State right-of-way lines, property, and utility right of way or easement lines.
- 11. Elevations.
- 12. Type of tracking method/system and accuracy used.
- 13. A detailed plan for monitoring ground surface movement (settlement or heave) resulting from the drilling operation.

* May be waived by the District Permit Engineer for HDD jobs less than 6" in diameter and a traverse crossing less than 150'.

UG 3. LIMIT OF EXCAVATION:

No excavation is allowed within 10' from the edge of pavement except in curbed urban areas or as specified in the permit. Where

no curb exists and excavations within 10' of the traveled way are to remain open, a temporary Type-K railing shall be placed at a 20:1 taper or as otherwise directed by the Department.

UG 4. TUNNELING:

Review, requirements of Section 623.6 of the Encroachment Permits Manual, if applicable. In addition to the requirements of "UG1" the following requirements apply:

- A. For the purpose of this provision, a tunnel is defined as any pipe, 30" or larger in diameter placed.
- B. When tunneling is authorized, the permittee shall provide full-time inspection of tunneling operations. The Department's representative shall monitor projects.
- C. A survey grid shall be set and appropriately checked over the centerline of the pipe jacking or tunneling operation. Copies of the survey notes shall be submitted to the Department's representative.
- D. Sand shields may be required as ground conditions change.
- E. The method used to check the grade and alignment shall be approved by the Department's representative.
- F. Pressure grouting for liner plates, rib and spiling, or rib and lagging tunnels shall be at every 8' section or at the end of work shift before the next section is excavated. All grouting shall be completed at the end of each workday.
- G. A method for securing the headway at the end of each workday is required. Breastplates shall be installed during working hours for running sand or super-saturated soil.

UG 5. HIGH AND LOW RISK FACILITIES:

High and Low Risk Facilities, as defined in the Department's current Manual on High and Low Risk Underground Facilities, shall be installed with a minimum cover of 42".

UG 6. EXEMPT AND OTHER UNDERGROUND FACILITIES:

- A. Exempt Facilities:
 - 1. Gas service lines no larger than 2" in diameter or operating at 60 psig or less.
 - 2.Underground electrical service conductors with a potential to ground of 300 volts or less.
 - 3.Departmental owned electrical systems.
- B. All facilities other than high and low risk shall have a minimum cover of 36" except for service connections, which shall have a minimum cover of 30".

UG 7. DETECTOR STRIP:

A continuous metallic detector strip shall be provided with non-metallic main installations. Service connections shall be installed at right angles to the centerline of the State highway where possible.

UG 8. BACKFILLING:

All backfilling shall conform to the applicable sections of the Department's Standard Specifications. Ponding or jetting methods of backfilling is prohibited.

Any required compaction tests shall be performed by a certified laboratory at no cost to the Department and the laboratory report furnished to the Department's representative.

UG 9. ROADWAY SURFACING AND BASE MATERIALS:

When the permit authorizes installation by the open cut method, surfacing and base materials and thickness thereof shall be as specified in the permit.

Temporary repairs to pavements shall be made and maintained upon completion of backfill until permanent repairs are made. Permanent repairs to pavements shall be made within thirty (30) days of completion of backfill unless otherwise specified by the Department. Temporary pavement patches shall be placed and maintained in a smooth riding plane free of humps and/or depressions.

UG 10. DAMAGE TO TREE ROOTS:

No tree roots over 3" will be cut within the tree drip line when trenching or other underground work is necessary adjacent to roadside trees. The roots that are 3" or more in diameter inside the tree drip line shall be tunneled under and wrapped in burlap and kept moist until the trench is refilled. Trenching machines may not be used under trees if the trunk or limbs will be damaged by their use.

If the trees involved are close together and of such size that it is impractical to protect all roots over 3" in diameter, or when roots are less than 4" in diameter, outside tree drip line, special arrangements may be made whereby pruning of the tree tops to balance the root loss can be done by the permittee under the close supervision of the District Landscape Specialist or District Tree Maintenance Supervisor. Manholes shall not be installed within 20' of any trunk.

UG 11. PIPES ALONG ROADWAY:

Pipes and conduits paralleling the pavement shall be located as shown on the plans or located outside of pavement as close as possible to the right-of-way line.

UG 12. BORROW AND WASTE:

Borrow and waste will be allowed within the work limits only as specified in the permit.

UG 13. MARKERS:

The permittee shall not place any markers that create a safety hazard for the traveling public or departmental employees.

UG 14. CATHODIC PROTECTION:

The permittee shall perform stray current interference tests on underground utilities under cathodic protection. The permittee shall notify the Department prior to the tests. The permittee

shall perform any necessary corrective measures and advise the Department.

UG 15. TIE-BACKS:

A. Tie-backs shall be placed for the sole purpose of supporting shoring and/or soldier piles placed outside State highway rights-of-way to facilitate permittee's excavation.

B. Tiebacks shall be disconnected from the shoring and/or soldier piles one (1) year prior to releasing the bond.

UG 16. INSTALLATION BY OPEN CUT METHOD:

When the permit authorizes installation by the open cut method no more than one lane of the highway pavement shall be open-cut at any one time. Any exceptions shall be in writing by the Department's representative. After the pipe is placed in the open section, the trench is to be backfilled in accordance with specifications, temporary repairs made to the surfacing and that portion opened to traffic before the pavement is cut for the next section.

If, at the end of the working day, backfilling operations have not been properly completed, steel plate bridging shall be required to make the entire highway facility available to the traveling public in accordance with the Steel Plate Bridging Special Provisions (TR-0157)

UG 17. PAVEMENT REMOVAL:

PCC pavement to be removed shall be saw cut at a minimum depth of 4" to provide a neat and straight pavement break along both sides of the trench. AC pavement shall be saw cut to the full depth.

Where the edge of the trench is within 2' of existing curb and gutter or pavement edge, the asphalt concrete pavement between the trench and the curb or pavement edge shall be removed.

UG 18. MAINTAIN ACCESS:

Where facilities exist (sidewalks, bike paths), a minimum width of 4' shall be maintained at all times for safe pedestrian and bicyclist passage through the work area.

UG 19. SIDES OF OPEN-CUT TRENCHES:

Sides of open cut trenches in paved areas shall be kept as nearly vertical as possible. Trenches shall not be more the 2' wider than the outside diameter of the pipe to be laid therein, plus the necessary width to accommodate shoring.

UG 20. EXCAVATION UNDER FACILITIES:

Where it is necessary to excavate under existing curb and gutter, or underground facilities, the void shall be backfilled with two (2) sack cement-sand slurry.

UG 21. PERMANENT REPAIRS TO PCC PAVEMENT:

Repairs to PCC pavement shall be made of Portland Cement Concrete containing a minimum of 658 lbs. or 7 sack of cement per cubic yard. Replaced PCC pavement shall equal existing

pavement thickness. The concrete shall be satisfactorily cured and protected from disturbance for not less than forty-eight (48) hours. Where necessary to open the area to traffic, no more than two (2%) percent by weight of calcium chloride may be added to the mix and the road opened to traffic after six (6) hours.

UG 22. REMOVAL OF PCC SIDEWALKS OR CURBS:

Concrete sidewalks or curbs shall be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing sidewalk or curb.

UG 23. SPOILS:

No earth or construction materials shall be dragged or scraped across the highway pavement, and no excavated earth shall be placed or allowed to remain at a location where it may be tracked on the highway traveled way, or any public or private approach by the permittee's construction equipment, or by traffic entering or leaving the highway traveled way. Any excavated earth or mud so tracked onto the highway pavement or public or private approach shall be immediately removed by the permittee.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT OVERHEAD UTILITY PROVISIONS

TR - 0162 (Rev. 12/2007)

OH1. LOCATION POLE LINES, ETC.:

Pole lines shall be located as specifically directed in the provisions of the permit.

OH2. INSTALLATIONS AND CLEARANCES:

Horizontal clearances, as measured from the edge of traveled way to the installation, shall be in accordance with the minimum desirable clear recovery zone for a conventional highway which is 20'. In no case is a pole allowed closer than 1.5' behind a curb face or less than 2' from the edge of a slope catch point or a driveway, or within a drainage ditch. New installations should adhere to setback limits or should be protected. Consideration should be given to placing such encroachments underground in shoulder or parking areas. Also, installations and clearances shall comply with applicable orders of the Public Utilities Commission of the State of California, or the California Occupational Safety and Health (CAL-OSHA) Safety Orders, whichever is greater.

OH3. PERMISSION FROM PROPERTY OWNERS:

When necessary, permission shall be secured from the abutting property owner(s) in written form by the permittee before starting work.

OH4. CLEARANCE OF TREES:

Unless otherwise specifically required by the Department, protected cables, tree wires or plastic tree wire guards used for communication lines may be used through trees where necessary, provided the installation and any necessary pruning does not damage or affect the appearance of the tree or the tree itself will not be damaged. This allowance does not apply to scenic highways.

OH5. GUY WIRES:

No guy wires are to be attached to trees except as may be specified in the permit and in no event

shall they be so attached as to girdle the tree or interfere with its growth. Guy wires shall be kept to a minimum elevation above ground as directed.

OH6. ANCHOR:

No anchor shall be placed closer to the traveled way than the pole itself.

OH7. REMOVE OLD POLES, GUY, and STUBS:

The entire length of poles and stubs shall be removed from the ground and the holes backfilled. Guy rods shall be removed to a minimum depth of 3' below original ground.

OH8. AERIAL CROSSING:

No work involving new or additions to existing aerial crossings shall be performed in rainy, foggy or inclement weather which creates hazardous conditions for highway users.

OH9. CLEARANCE FROM CURBS:

The face of poles shall not be placed closer than 1.5' from any curb face.

OH10. POLE INSTALLATION OR REMOVAL:

Where poles are to be installed or removed behind the curb in a parkway that is paved with Portland Cement Concrete, the concrete shall be saw cut, removed and replaced to the nearest score lines or expansion joints. The hole in the PCC sidewalk created by pole removal shall be temporarily backfilled with 2" minimum temporary AC at the time the pole is removed. Poles are not to be installed without prior approval of the final location by the Department's field representative.

OH11. CONTROLLED ACCESS/RAW:

Poles, anchors, etc. shall not be installed inside of any controlled access right of way. All requests shall be packaged as exceptions to policy.

ENCROACHMENT PERMIT UTILITY MAINTENANCE PROVISIONS

TR - 0161 (Rev. 05/2006)

Any public utility or public corporation who lawfully maintains a utility encroachment, or their agent, may perform routine or emergency maintenance on such facility in accordance with the following provisions (unless updated at some future time, thence the future provisions shall govern.

UM1. EXCLUSIONS:

These provisions do not authorize tree trimming, work on freeways, expressways, or other activities not specifically provided for in this permit.

UM2. POSSESSION OF PERMIT REQUIRED:

The permit or a copy thereof shall be kept at the site of the work and must be shown to any Departmental representative or any law enforcement officer on demand. **WORK SHALL BE SUSPENDED IF PERMIT IS NOT AT WORK SITE AS REQUIRED.**

UM3. NOTICE REQUIRED:

The permittee shall notify the Department's representative and the Transportation Management Center (TMC) 7 days before initiating a lane closure. A confirmation notification should occur 3 days before closure. In emergency, situations that may impact traffic, TMC and the Department's representative shall be notified as soon as possible.

UM4. STANDARD OF WORK:

All work shall conform to recognized standards of utility construction and the Department's current Standard Specifications.

UM5. EMERGENCY REPAIRS:

The permittee may make emergency repairs, alter traffic flow, and excavate through improved surfaces only when breaks in the conduit, cable or pipeline over or under the pavement present a definite public hazard or serious interruption of essential service. In such cases, the Department's representative shall be notified immediately.

UM6. OPEN EXCAVATIONS:

No excavation shall be left open after daylight hours unless specifically authorized and adequate protection for traffic is provided in accordance with the General Provisions "Protection of Traffic."

Backfill and pavement replacement shall be performed in accordance with the applicable General Provisions (i.e., "Restoration and Repairs in Rights of Way").

UM7. SERVICE CONNECTION:

These provisions do not authorize installation of conduit, cable, gas, or water service connections within State rights of way, regardless of the location of the main, existing conduit, or cable. All new underground or pipe abandon services must be

covered by individual permits. See Section "OH 4" regarding service connections for aerial wires.

UM8. ROUTINE INSPECTION AND MAINTENANCE:**1. Routine Maintenance and Inspection:**

Roadbed work shall be conducted between 9:00 a.m. and 3:00 p.m., or as otherwise authorized, in writing, by the Department's representative.

2. Manholes:

The permittee may open existing manholes to repair underground cables. Where the manhole lies within the improved surface of the highway, the permittee will provide adequate protection for traffic in accordance with the General Provisions "Public Traffic Control".

3. Excavations:

Routine inspection and repair of pipeline and cables shall:

A. Not be made in improved surfaces, landscaped areas or closer than 10' to the edge of the pavement without a special permit; and

B. Not uncover more than 50' of line at any one time.

4. Pole Lines:

Permittee is authorized to:

A. Stub, or reset existing pole, provided no change in location of pole or anchor is made. Stubs and anchors must not be placed between existing pole and traveled way.

B. Replace poles, guy poles, and crossarms in same location limited to two (2) consecutive poles. No additional poles or guys poles are authorized under this routine maintenance provision.

C. Replace broken pins and/or insulators, repair broken wires, pull slack wires, and replace or pull broken or slack guys.

D. Repair and complete transfer work on existing aerial cables.

- E. Install new and replace existing transformers on existing poles.
- F. Replace aerial wires and crossarms on existing poles except where wires cross the highway. Unless otherwise specifically required by the Department, protected cable, tree wire or plastic tree wire guard used for communication lines may be used through trees where necessary, provided the appearance of the tree or the tree itself will not be damaged. *This section (F) does not apply to scenic highways.*
- G. Installations and clearances shall be equal to those required by either the California Public Utilities Commission Orders or the California Occupational Safety and Health (CAL-OSHA) Safety Orders, whichever is greater. *Also see "OH 2" of the Overhead Utility Provisions.*
- H. Clear grass from around base of poles and excavate around poles for inspection, including tamping and straightening. The use of herbicides or other chemicals is not authorized by this permit. A separate encroachment permit must be applied for and issued for that purpose.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT ANNUAL UTILITY PROVISIONS
 TR - 0160 (Rev. 12/2006)

Any public utility or public corporation, who lawfully maintains a utility encroachment, or their agent, may perform routine or emergency maintenance on such facility in accordance with the following provisions:

- UE1. **EXCLUSIONS:** These provisions do not authorize tree trimming, work on freeways, expressways, aerial capacity increases on designated "Scenic Highways," or other activities not specifically provided for in this permit.
- UE2. **POSSESSION OF PERMIT REQUIRED:** The permit or a copy thereof shall be kept at the work site and must be shown to any Departmental representative or any law enforcement officer on demand. **WORK SHALL BE SUSPENDED IF PERMIT IS NOT AT JOB SITE AS REQUIRED.**
- UE3. **NOTICE REQUIRED:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) 7 days before initiating a lane closure. A conformation notification should occur 3 days before closure. In emergency situations that may impact traffic, TMC and the Department's representative shall be notified as soon as possible.
- UE4. **STANDARDS OF WORK:** All work shall conform to recognized standards of utility construction and Department's current Standard Specifications, Environmental and Stormwater requirements.
- UE5. **EMERGENCY REPAIRS:** The permittee may make emergency repairs, alter traffic flow, and excavate through improved surfaces only when breaks in the conduit, cable, or pipeline over or under the pavement presents a definite public hazard or serious interruption of essential services. In such cases, the Department's representative shall be notified immediately.
- UE6. **OPEN EXCAVATIONS:** No excavation shall be left open after daylight hours unless specifically authorized and adequate protection for traffic is provided in accordance with General Provisions, "Public Traffic Control." Backfill and pavement replacement shall be performed in accordance with General Provisions, "Restoration and Repairs in Rights of Way."
- UE7. **TRAFFIC CONTROL HOURS:** Work requiring traffic control shall be conducted between 9:00 a.m. and 3:00 p.m. or as otherwise authorized by the Department's representative.
- UE8. **WORK PERMITTED - AERIAL:**

- 1. Install additional capacity (in the same location), except facilities over the traveled way, on designated "Scenic Highways," or on Structures.
- 2. Maintain, inspect, remove, repair or replace (in the same location) all aerial facilities except over the traveled way or on Structures, this requires the placement of all poles and cabling as per TR-0108 located in Appendix E of the Encroachment Permits Manual under a new permit
- 3. Permittee is authorized to clear grasses from around base of poles and excavate around poles for inspection, including tamping and straightening.
- 4. Perform insulator washing and interconnect splicing of cables.
- 5. Install or remove service connections with potential to ground of 300 volts or less, except over the traveled way.
- 6. Install, maintain, remove, repair or replace aerial service connections with potential to ground of 300 volts or less, except over the traveled way, unless specifically stated in permit.

- 7. Installations and clearances shall be equal to those required by either the State of California Public Utilities Commission orders or the California Occupational Safety and Health Regulations (CAL-OSHA), Division of Industrial Safety, Safety Orders, promulgated in the California Code of Regulations, Title 8, Chapter 4, whichever is greater.

UE9. WORK PERMITTED - UNDERGROUND:

- 1. Maintain, inspect, remove, repair or replace (in the same location) all underground facilities except those requiring trenching in the traveled way.
- 2. Install additional capacity in existing ducts except for facilities not in compliance with the Department's current "Manual on High and Low Risk Facilities within Highway Rights of Way" or on Structures.
- 3. Install air flow monitoring transducers and piping in existing ducts.
- 4. Barholing, potholing, cleaning, rodding and placing float ropes.
- 5. Adjust access cover to grade and replace in kind or with larger size pull boxes.
- 6. Interconnect splicing of cables.
- 7. Install service connections perpendicular to the highway using either directional drilling, jacking and boring, or trenching methods as determined by the District Permit Engineer. Electrical service is restricted to a potential to ground of 300 volts or less. Gas and domestic water services are restricted to 2" in diameter or less.
- 8. Permanent pavement patching for work authorized by this permit.

UE10. POLE MAINTENANCE & CHEMICAL TREATMENT

1. Utility Companies are to provide a list of the pole identification, location, type of chemicals and quantities used for their pole treatment maintenance operations. This information shall be provided upon expiration of their annual permits or upon request of the Department during the annual/biennial permit renewal as needed.

2. Utility Companies shall submit copies of the MSDS sheets for all chemical compounds to be used in their pole treatment maintenance operations in conjunction with the permit application submittal.

3. Utility Companies are to notify the District Landscape Specialist or their designee and the District Encroachment Permit Office when there is any change or modification in the type(s) of chemical used in their pole treatment maintenance operations.

4. Prior to any applications of Tree Growth Regulators (TGR) approval shall be obtained from the District Landscape Specialist or their designee and the products used must be on the Caltrans approved chemical list.

- UE11 **FAILURE TO COMPLY:** Failure to comply with the terms and conditions above shall be grounds for permit revocation.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRIC UTILITY TREE PRUNING AND REMOVAL SPECIAL PROVISIONS
TR--0159 (Rev. 10/2007)

These special provisions are intended for tree pruning purposes done by Electrical Utility owners or their contractors. These special provisions are not intended for use in conjunction with encroachment permits issued for outdoor advertising or for non-utility tree pruning.

I. GENERAL

- A. In partnership with Caltrans, this permit shall not restrict an Electric Utility owner from complying with applicable California Public Resources Codes, California Public Utility Commission (CPUC) General Orders, and other Federal, State, or local laws that require clearances between vegetation and energized power lines.

Work may only be performed by the contractor(s) listed on this permit, or contractor(s) who have obtained a Double Permit (DP) in conjunction with the utility owner's permit.

- B. This permit authorizes the pruning/removal of trees located on State rights-of-way, and/or access onto the State rights-of-way to the location for pruning/removal of trees that are located outside of the State rights-of-way.
- C. Scheduling of work may be restricted by Caltrans. Traffic volumes for special events, commute traffic and other high volume traffic flows may restrict pruning hours and/or days.
1. Traffic control is generally authorized from 9 a.m. to 3 p.m., Monday through Friday, excluding holidays. Extended hours for traffic control, may be authorized by Caltrans.

2. All traffic control shall conform to State Standard Plan requirements. When required, the use of a flashing arrow board is MANDATORY.

- D. All debris, cuttings and/or tree limbs shall be removed from State rights-of-way, and the work area must be left in a safe and presentable condition at the end of each workday. In areas where the spread of disease or insects is a concern, tree limbs and wood shall be disposed in accordance with requirements of Federal, State and local agencies. When approved by Caltrans, clean loads of wood chips may be placed only at designated locations within the State rights-of-way, so as not to create a fire hazard, attract illegal dumping or obstruct drainage ditches or inlets.

- E. All pruning shall be in compliance with ANSI A300-1995, the American National Standard for Tree Care Operations. Tree, Shrub and Other Woody Plant Maintenance-Standard Practices and the International Society of Arboriculture (ISA) Tree-Pruning Guidelines, 2001 or subsequent versions thereof.

- F. All operations of work shall be suspended during inclement weather or fog when lane or shoulder closures are needed to perform the work. No work is allowed during periods of high winds that could spread debris into the traveled way.

- G. The Caltrans District Landscape Specialist or their designee may communicate the location of specific trees which are considered of high value because of their local community significance, historic landscape potential, or documented horticultural value. The Electric Utility owner may be required to limit the amount of foliage removed from these high value trees in order to preserve their structure and appearance.

II. TREE PRUNING

When trimming for clearance the Utility Company or their representative shall obtain concurrence from the Caltrans District Landscape Specialist or their designee on the actual amount of clearance required for that specific area.

In addition to the ANSI A300 standards and the ISA Tree Pruning Guidelines, the following requirements shall be followed:

- A. Directional pruning as defined in the ISA Tree-Pruning Guidelines may be performed on trees which will be pruned for the first time or trees which have had some pruning in the recent past. Trees which cannot be directionally pruned may be submitted for consideration of removal.

- B. Initial severe "V" shaped directional pruning may be performed on trees only after review of the trees by Caltrans. Prior approval shall be obtained from the Caltrans District Landscape Specialist, their designee or Caltrans District Landscape Architect. Severe "V" directional pruning on any tree species along state or federal designated scenic highways requires review and approval from the Caltrans District Landscape Architect.

- C. Previously "rounded over" trees shall be maintained as in the past unless Caltrans and the Electric Utility owner determine the tree can be directionally pruned or the crown restored without causing structural defects that may cause the new growth to present a liability.

- D. Minimum clearances established by the CPUC General Orders, California Public Resources Code and other Federal and State laws must be adhered to. The amount of clearance beyond the established minimum shall be determined by Caltrans and the Utility Company. For most locations, where conditions allow, a minimum pruning frequency should be established that would not require additional pruning for one year. Consideration shall be given to the species, health, growth habit and condition of each tree when determining the amount to prune. Branches should be cut to laterals or the parent branch and not at a pre-established clearing limit.

- E. Under most conditions, trees may be pruned during any season of the year. The timing of pruning of host trees (eucalyptus, pine, and elm) in areas of known disease or insect infestations may be restricted unless the specific host trees are not in compliance with California Public Resources Codes, CPUC General Orders and other Federal, State, or local laws, or if an immediate hazard exists to public safety.

SOME RESTRICTIONS may occur due to migrating birds and sun scald in the hotter climates, contact the Caltrans District Landscape Specialist or their designee for a list of regulated areas.

III. TREE REMOVAL

Only trees which do not require replacement, compensation or mitigation planting may be removed under this permit.

- A. Volunteer growth from stumps and seedlings growing directly under the electrical lines which will ultimately grow into the electrical lines and have little or no value to the desired condition of the roadside may be removed without additional Caltrans approval.

Note: Seedlings are less than 4" in diameter, and less than 20' tall.

- B. Caltrans approval is required where clear cutting of all growth under the electrical lines is desired. Groups of seedlings or volunteer growth that provides a visual screen for adjacent development shall not be removed without review by Caltrans District Landscape Architect.

- C. A Caltrans District Landscape Specialist may approve other tree removals when one of the following criteria are met:

1. Any tree which, by mutual agreement, is a potential hazard that should be removed, such as; leaning, uprooted, or dead trees. Replacement trees, compensation or mitigation plantings are not required.
2. Trees which have low species value or trees in obviously poor condition due to poor health, or severe structural defects, and which are not of high value, provide a highway screen, wildlife habitat or other landscape function. (The Western Chapter, International Society of Arboriculture Species Classification and Group Assignment pamphlet may be used as a reference to determine low species value.) Replacement trees, compensation or mitigation planting are not required.

Prior to tree removals under Section C, a Caltrans/Electric Utility Tree Removal Request shall be completed, signed by the Electric Utility Company authorized representative, and submitted to the Caltrans District Landscape Specialist or their designee. At least one legible photograph showing the tree(s) to be removed shall be provided by the Electric Utility Company and submitted with the tree removal request.

Trees shall not be removed until the Caltrans District Landscape Specialist or their designee approves and signs the Tree Removal Request. The Electric Utility Owner shall have a copy of the approved Tree Removal Request at the work site during removal operations.

- D. Removals requiring compensation, replacement trees or mitigation planting:

Compensation, replacement trees, or mitigation planting shall be required for trees of high value, with a historic landscape potential, trees which provide a highway screen, wildlife habitat, or other landscape function. Trees which require replacement, mitigation planting or compensation SHALL REQUIRE A SEPARATE PERMIT and approval by the Caltrans District Landscape Architect. (The Western Chapter, International Society of Arboriculture Species Classification and Group Assignment Pamphlet may be used as a reference to determine high species value.)

IV. CHEMICAL CONTROL

- A. Upon approval by Caltrans to use chemicals, the electric utility owner shall also obtain approval by the County Agricultural Commissioner.
- B. Control of resprouting tree species shall be conducted using an integrated vegetation management program, which includes chemical and non-chemical methods.
- C. A pest control recommendation from a licensed Pest Control Advisor must be obtained, and a copy of the recommendation must be submitted to the Caltrans District Landscape Specialist or their designee prior to chemical application.
- D. Utility Companies are to provide a list of the locations, type of chemicals and quantities used for treatment in their pruning operations. This information shall be provided upon expiration of their annual permit or upon request of the Department during the annual/biennial permit life as needed.
- E. Utility Companies are to submit copies of the MSDS sheets for all chemical compounds to be used in their tree trimming and pruning operations, in conjunction with the permit application submittal.
- F. Utility Companies are to notify the District Encroachment Permits Office when there is a change or modification in the type of chemical used in their trimming or pruning operations.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT - UNCASSED HIGH PRESSURE NATURAL GAS PIPELINE
SPECIAL PROVISIONS
TR-0158 (Rev 05/2006)

In accordance with the Departments Encroachment Permits Manual, Section 623, requires that all new pipeline installations with a diameter of six inches or greater and transversely cross a State highway rights-of-way shall be encased.

In compliance with Memorandum dated November 9, 1994, "Exception to Policy" - Uncased High-pressure Natural Gas Pipelines. The Department will allow the installation of uncased natural gas pipelines crossings in specific circumstances. The Departments primary concerns are for public safety, the integrity of the highway facility and the mechanical protection of the pipeline itself. It is necessary to limit the number of requests for transverse natural gas transmission pipeline crossings, without casings, to locations where the following conditions are met:

UNG 1.

The pipeline owner agrees that the crossing will be designed for construction in accordance with the Code of Federal Regulations, Title 49, Part 192, and/or the California Public Utilities Commission General Orders No. 112-D with respect to natural gas pipelines. The crossing design shall be comprehensive in all respects including but not limited to " material specification, pipe wall thickness determination, coating selection, and cathodic protection. Soil conditions at each site shall be analyzed for characteristics that may prove harmful to the protective pipe coating. This analysis shall be used by the pipeline owner in selecting a protective pipe coating sufficient to withstand the potential for gouging or peeling during the boring and jacking operation, or other methods approved by Caltrans. The final condition of the coating will be determined by the pipeline owner through monitoring of the boring and jacking operation, visually inspecting the exiting initial pipe segment, and electrical testing by an engineer or technician with expertise in cathodic protection. The test data shall be noted on the as-built drawings. Remedial action will be taken if the condition of the coating is such that cathodic protection is not practical.

UNG 2.

The minimum depth of cover within State highway right of way, from the final ground line (finished grade or original ground) to the top of the proposed gas carrier pipeline, is 7.5'. If the location is such that it is not practical to achieve the above depth of cover, then an engineered protective cover (such as a reinforced concrete structure) may be provided outside of pavement areas in lieu of casing. At no time shall the minimum depth of cover be less than 42".

UNG 3.

The permit specifies that the uncased gas carrier pipeline shall, as a minimum, be designed for a Class 3 Location (Code of Federal Regulations referenced above) for hard surfaced roads, highways, public streets, and railroads. (See attached Excerpts from the Code of Federal Regulations, Design Factor to be Used for Natural Gas Pipelines.)

UNG 4.

The existence of the crossing is adequately identified by signing at the right-of-way line, with at least one identifying sign, which is visible from the roadway in each direction of travel.

UNG 5.

The pipeline owner agrees to provide as-built drawings at completion of the pipeline crossing, with a letter certifying that the pipeline was installed properly and in accordance with the permit plans (including approved changes to the permit plans), and meets industry and regulatory standards for such installation.

UNG 6.

All other applicable requirements of Section 623 of the Encroachment Permits Manual are satisfied.

UNG 7.

All permit applications requesting installations of such uncased natural gas pipeline crossings six inches or larger in diameter and meeting the above requirements may be approved by the highway district. All permit applications for uncased pipeline crossings deviating from the above requirements shall be submitted to the Chief of the Office of Project Planning and Design for exception approval in the usual manner.

EXCERPTS FROM CODE OF FEDERAL REGULATIONS

DESIGN FACTORS TO BE UTILIZED FOR NATURAL GAS PIPELINES

In the design of steel natural gas pipelines the Minimum Yield Strength for the grade of steel used is reduced by a Design Factor (F). This Design Factor is determined by the type of road being crossed by the pipeline and a Class Location established by Code of Federal Regulations, Title 49, Part 192 (Office of the Federal Register, 1990)

The Class Location depends on the occupancy of buildings or activities within an area that extends 660 feet from either side of the pipeline centerline for a continuous 1 mile segment of the pipeline. There are four Class Locations as follows:

- Class 1. A location that has 10 or less buildings intended for human occupancy.
- Class 2. A location that has more than 10 but less than 46 buildings intended for human occupancy.
- Class 3. a) Any location that has 46 or more buildings intended for human occupancy; or
b) Area where pipeline lies less than 300 feet of either a building or a small well defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. (The days or weeks need not to be consecutive).
- Class 4. Location where buildings of four or more stories are prevalent.

The design factor used for a specific Class Location also depends on the kind of road involved as indicated on the following Table.

DESIGN FACTOR (F)

TYPE OF THOROUGHFARE	CLASS LOCATION			
	1	2	3	4
Privately owned roads	0.72	0.60	0.50	0.40
Unimproved public roads	0.60	0.60	0.50	0.40
Hard surfaced roads, highways public streets, and railroads	0.60	0.50	0.50	0.40

Example: A pipe made of X42 grade of steel which has a Minimum Yield Strength (MYS) of 42,000 psi used in a Class 4 location at a hard surface road crossing would be designed using a reduced Minimum Yield Strength, by applying a Design Factor of 0.4, of 16,800 psi.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT STEEL PLATE BRIDGING UTILITY PROVISIONS

TR -0157 (Rev. 07/2009)

To accommodate excavation work, steel plate bridging may be necessary. All conditions for use of steel plate bridging should be set forth in the special provisions.

Consideration of steel plate bridging should take into account the following factors:

1. Traffic speed;
2. Traffic Volume and Composition;
3. Duration and dimensions (width & daily estimated lengths) of the proposed excavation;
4. Weather conditions;

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with a non-skid surface and shoring (see Trenching & Shoring) may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate bridging on freeways is not allowed.
2. Steel plates used for bridging must extend a minimum of 12" beyond the edges of the trench.
3. Steel plate bridging shall be installed to operate with minimum noise.
4. The trench shall be adequately shored, (as mentioned in Section 629 of the Encroachment Permits Manual) to support the bridging and traffic loads.
5. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
6. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

As required by the district, steel plate bridging and shoring shall be installed using either Method (1) or (2):

Method 1 For speeds of 45 MPH or greater:

The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other.

Method 2 For Speeds less than 45 mph:

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 3:5 % with a minimum 12" taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines or asphalt concrete mix concrete slurry epoxy or an equivalent that is satisfactory to the Caltrans representative.

The permittee is responsible for maintenance of the steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications. Unless specifically noted or granted in the special provisions, or approved by the State representative, steel plate bridging shall not exceed 4 consecutive working days in any given week. Backfilling of excavations shall be covered with a minimum 3" temporary layer of cold asphalt concrete.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual).

Trench Width	Minimum Plate Thickness
10"	One-half inch - 1/2"
1'-11"	Three-quarters inch - 3/4"
2'-7"	Seven-eighths inch - 7/8"
3'-5"	One inch - 1"
5'-3"	One & three-quarter inch - 1 1/4"

NOTE: For spans greater than 5'-3", a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right of way whether used in or out of the traveled way shall be without deformation. Inspectors can determine the trueness of steel plates by using a straight edge and should reject any plate that is permanently deformed.

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342 (See Appendix H, Encroachment Permits Manual). If a different test method is used, the permittee may utilize standard test plates with known coefficients of friction available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, the permittee shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

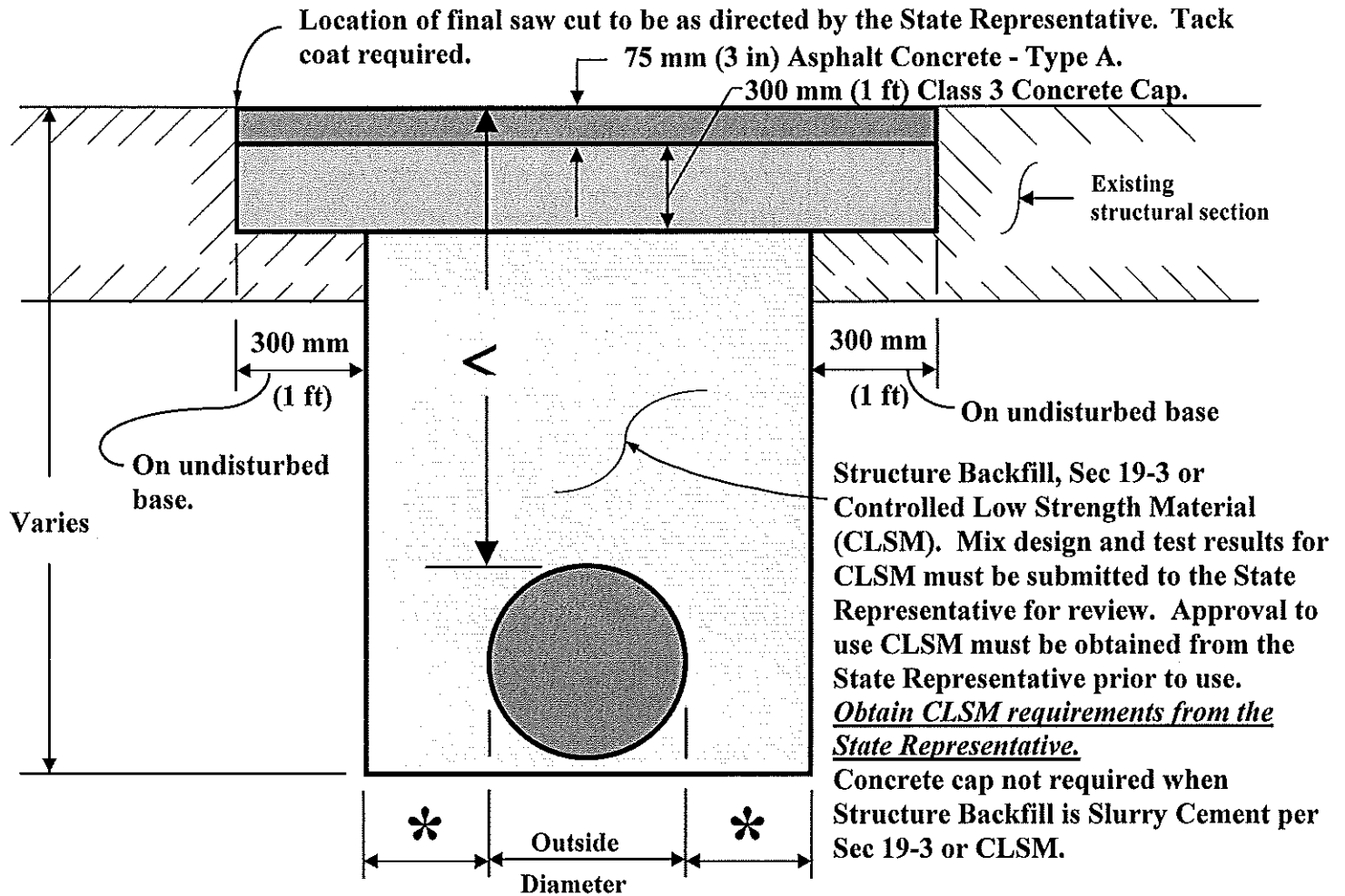
Caltrans Inspectors should not enforce plate removal unless it is permanently deformed or delivered without the required surfacing. However, an inspector should document in a diary all contacts with the contractor.

A Rough Road sign (W8-8) with black lettering on an orange background may be used in advance of steel plate bridging. This sign is used along with any other required construction signing.

Surfacing requirements are not necessary for steel plates used in parking strips, on shoulders not used for turning movements, or on connecting driveways, etc., not open to the public.

Trench Detail "A"

Transverse crossings. For Utilities and Culverts Only



< **Minimum Cover depth**
See Policy on High and Low Risk Under Ground Facilities and Encroachment Permit Utility Provisions.

High & Low Risk Facilities = 106.68 cm (42 in)
Exempt Facilities = 91.44 cm (36 in)
Service connections = 76.20 cm (30 in)
Culverts = 60.96 cm (24 in)

* Culverts and drainage systems = 600 mm (2 ft) minimum, or 150 mm (6 in) when using CLSM or Slurry Cement Backfill and line diameters are less than 1,067 mm (42 in), and 300 mm (1 ft) when line diameters are over 1,067 mm.

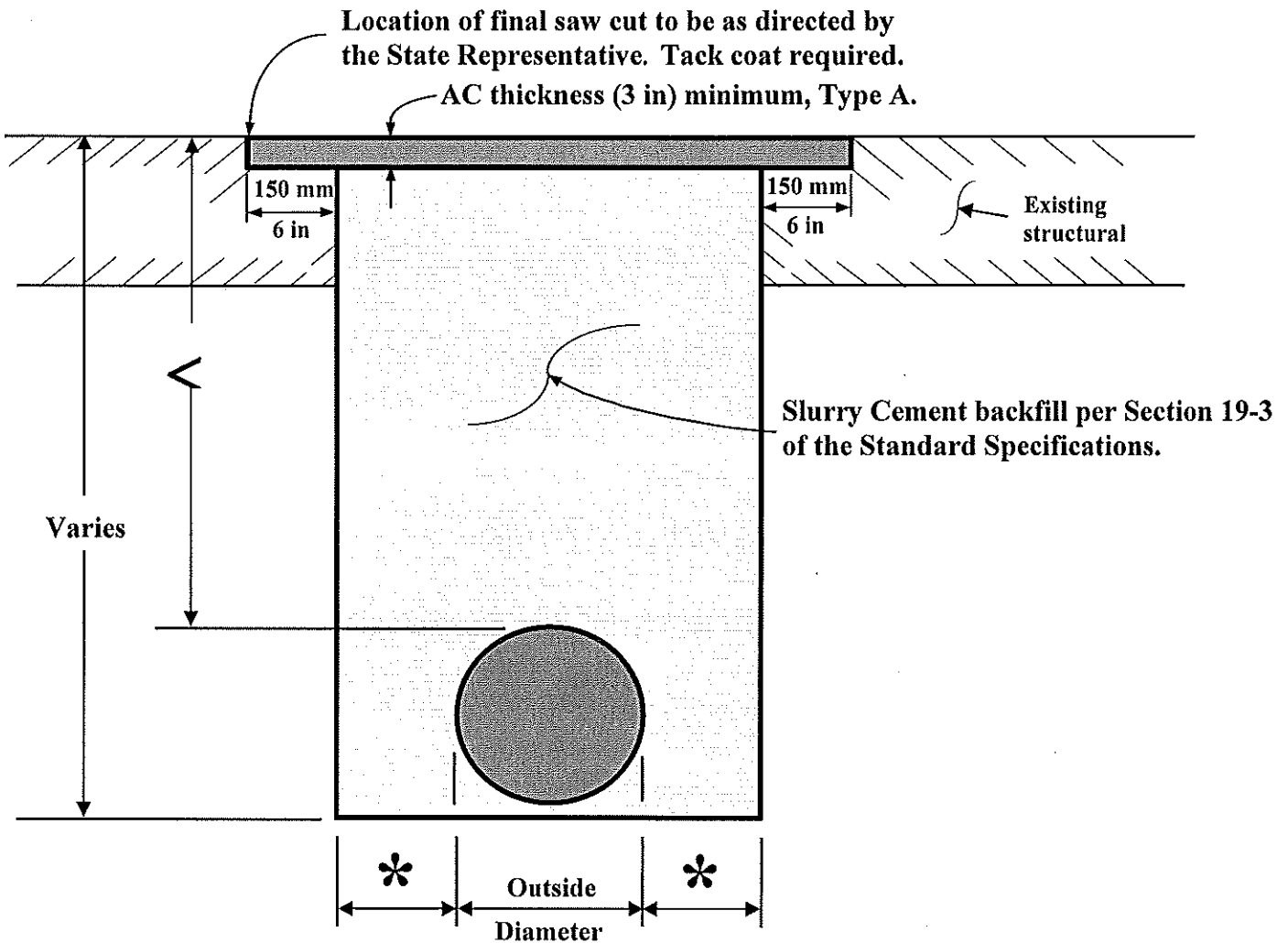
Other utilities = Width required to accommodate shoring & compaction.

Notes:

1. Compaction to be at 95% relative compaction, subject to testing. Ponding and jetting is NOT ALLOWED.
2. Concrete cap may be "rapid set" PCC.
3. All trench shoring subject to section 1541 Construction Safety Orders of the California Division of Occupational Safety and Health. Shoring plans are to be submitted for review and approval to the state representative before starting excavation. A minimum of three weeks required for review.

Trench Detail "B-1"

Longitudinal Encroachments. For Utilities and Culverts Only



< **Minimum Cover depth**
See Policy on High and Low Risk Under Ground Facilities and Encroachment Permit Utility Provisions.

High & Low Risk Facilities = 106.68 cm (42 in)
Exempt Facilities = 91.44 cm (36 in)
Service connections = 76.20 cm (30 in)
Culverts = 60.96 cm (24 in)

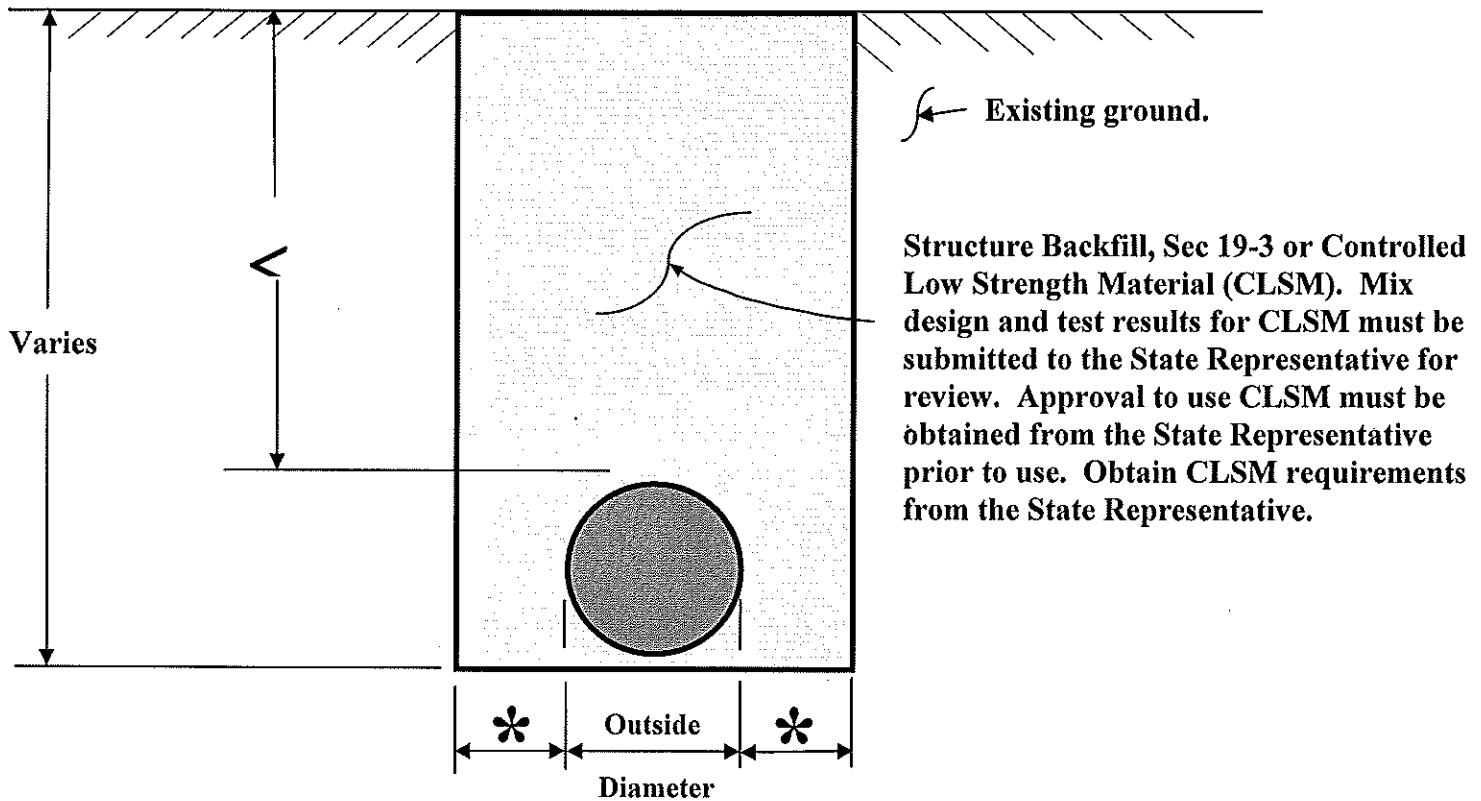
- * Culverts and drainage systems = 600 mm (2 ft) minimum, or 150 mm (6 in) when using CLSM or Slurry Cement Backfill and line diameters are less than 1,067 mm (42 in), and 300 mm (1 ft) when line diameters are over 1,067 mm.
- Other utilities = Width required to accommodate shoring & compaction.

- Notes:
1. Compaction to be at 95% relative compaction, subject to testing. Ponding and jetting is NOT ALLOWED.
 2. All trench shoring subject to section 1541 Construction Safety Orders of the California Division of Occupational Safety and Health. Shoring plans are to be submitted for review and approval to the state representative before starting excavation. A minimum of three weeks required for review.

Trench Detail "D"

For Utilities and Culverts Only

For use outside paved areas



< **Minimum Cover depth**
See Policy on High and Low Risk Under Ground Facilities, and Encroachment Permit Utility Provisions.

High & Low Risk Facilities = 106.68 cm (42 in)
Exempt Facilities = 91.44 cm (36 in)
Service connections = 76.20 cm (30 in)
Culverts & drainage systems = 60.96 cm (24 in)

- * Culverts and drainage systems = 600 mm (2 ft) minimum, or 150 mm (6 in) when using CLSM or Slurry Cement Backfill and line diameters are less than 1,067 mm (42 inches), and 300 mm (1 ft) when line diameters are over 1,067 mm. Other utilities = Width required to accommodate shoring & compaction.

- Notes:
1. Compaction to be at 95% relative compaction, subject to testing. Ponding and jetting is **NOT ALLOWED.**
 2. All trench shoring subject to section 1541 Construction Safety Orders of the California Division of Occupational Safety and Health. Shoring plans are to be submitted for review and approval to the state representative before starting excavation. **A minimum of three weeks required for review.**

NOTICE OF COMPLETION

Permit No.: 0412- NMC0254

Inspector: B. Iranpour

All work authorized by the above- numbered permit was
com pleted on: _____

Permittee Signature

PERMIT NUMBER
 0412-NMC0254

Dear Customer,

Our goal is to provide the best service possible to our customers. Please take a few minutes to complete this questionnaire. Your comments will enable us to see how we are doing overall and any areas which may need improvement.

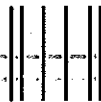
PLEASE TELL US HOW WE'RE DOING

	EXCELLENT	VERY GOOD	GOOD	POOR
INSIDE THE OFFICE				
Staff courteous and helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staff quick and efficient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explanations and instructions clear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TELEPHONE ANSWERING				
Timely response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receiving information or answers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSPECTION				
Inspector courteous and helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pre-construction meeting set and held in a timely manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspector at job site frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspector able to answer questions and deal with problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OVERALL PERFORMANCE				
What would you say is our overall performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a staff person you would like to commend?	STAFF'S NAME:			

COMMENTS:

NAME (Optional)	BUSINESS PHONE NUMBER	DATE
-----------------	-----------------------	------

PLEASE FOLD HERE AND STAPLE



NO POSTAGE
NECESSARY IF
MAILED IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 1763 OAKLAND, CA

POSTAGE WILL BE PAID BY ADDRESSEE



State of California
DEPARTMENT OF TRANSPORTATION
P.O.Box 23660
Oakland, CA 94623-0660
Attn: Office of Encroachment Permit

APPENDIX B

Right-of-Entry Permit

Date: November 1, 2012

RIGHT-OF-ENTRY PERMIT

This Right-of-Entry Permit ("Permit") is entered into as of November 1, 2012 ("Effective Date") by and between GOLDEN GATE BRIDGE, HIGHWAY AND TRANSPORTATION DISTRICT ("District") and UNITED STATES DEPARTMENT OF TRANSPORTATION, acting through its agency, the FEDERAL HIGHWAY ADMINISTRATION ("Permittee"), Central Federal Lands Highway Division, 12300 West Dakota Avenue, Suite 380, Lakewood, CO 80228.

RECITALS

WHEREAS, Permittee, working through the National Park Service/Golden Gate National Recreation Area, which owns the underlying land of Alexander Avenue from the Golden Gate Bridge to the City of Sausalito boundary, and the District, which operates and maintains Alexander Avenue pursuant to the terms of the 1931 Right-Of-Way Agreement and twenty-one amendments between the District and the U.S. Department of the Interior; and

WHEREAS, Permittee desires, to improve a portion of Alexander Avenue where it is intersected by Danes Drive, as a part of the Alexander Avenue/Danes Drive Intersection Improvements Project (Project), which work limits and work scope are further shown and described in Exhibit A; and

WHEREAS, the District is willing to grant Permittee a permit to enter onto the District's right of way on Alexander Avenue, as specifically shown in Exhibit A (collectively the "Premises"), to perform construction of the Project, subject to the terms and conditions set forth herein.

AGREEMENT

1. **Permit.** District hereby permits Permittee and its duly authorized agents, representatives, and contractors to enter upon the Premises, subject to all existing licenses, easements, encumbrances, and claims of title affecting Premises and upon the terms and conditions contained herein.
2. **Exclusive Use.** This Permit is for Permittee and its duly authorized agents, representatives and contractors' exclusive use and is not assignable without the prior consent of District.
3. **Purpose.** The permitted purpose of Permit shall be solely for entry upon Premises for purposes of constructing the improvements of Alexander Avenue and Danes Drive, including temporary traffic control, traffic detours and closures, excavation, backfill, drainage, foundation work, new pavement, installation of temporary and permanent signs and other associated work on Alexander Avenue and Danes Drive, as described in Exhibit A, and bringing all necessary personnel, equipment and materials onto Premises as necessary for the permitted purpose ("Project").

4. Term. This Permit shall be effective upon the date written above and then shall automatically terminate on December 31, 2014, unless extended by mutual written agreement. District reserves the right to revoke or modify this Permit at any time prior to the termination date upon forty-eight (48) hours' advance notice from District to Permittee in the event any term of this Agreement is breached by Permittee and not promptly remedied by Permittee and is a threat to public safety.

If Permittee requires use of Premises prior or subsequent to the foregoing dates, then Permittee shall request approval from District at least forty-eight (48) hours prior to the time requested. Permittee shall also notify District at least forty-eight (48) hours prior to the commencement of any work. Contact: Paul Wong at (415) 923-2322 and Norma Jellison at (415) 257-4564.

5. Permit Shall Remain On-Site. A copy of this Permit must be kept on the site of Premises at all times during the term of this Permit and shall be shown to any representative of District upon demand.
6. Permit Fees and Costs. The Permittee will not be charged for activities related to the Permit approval. As compensation for use of Premises, the Permittee's Contractor shall pay the costs for review of Permit application, design and construction plans, preparation of Permit, and any inspection of activity or construction authorized by this Permit, including but not limited to expenses incurred by District, which costs and expenses Permittee's contractor shall pay upon demand. Permittee's Contractor shall pay to District upon execution hereof the sum of Five Hundred Dollars (\$500.00), which is an estimate of such costs and expenses.
7. Work Plans. All work shall be performed in accordance with a detailed set of work plans, describing the scope of work to be performed, which shall be submitted to Permitter for Permitter's approval in advance of any work, and such work shall be subject to monitoring and inspection by Permitter. As a minimum, a traffic control plan, general work plan and a health and safety plan, shall be submitted.

The traffic control plan shall include a detailed description of how the Permittee plans to handle pedestrian, bicycle and vehicular traffic for the Work. All traffic control work shall be performed in accordance with State of California Manual of Uniform Traffic Control Devices (MUTCD) regulations and guidelines for traffic control. All traffic control work shall be performed in conformance with the approved traffic control plan. If an accident or other incident (whether or not related to the Work) occurs in the vicinity of the Work, upon direction by Permitter's representative, Permittee shall immediately stop work and remove traffic controls from the area unless public health, safety or welfare is endangered by the unfinished work. After the free flow of traffic is restored, work in accordance with this Permit may be resumed.

The general work plan, scope of work, shall include a detailed description of the actual specific work to be performed under this Permit, including the work location(s), a work schedule, equipment and material, equipment and material staging, temporary fencing, water

pollution prevention plan as applicable site restoration, and any other details for performing the work authorized by this Permit.

The Health and Safety Plan detailing Permittee's arrangements to provide for the health and safety of its employees, Permitter's personnel, and the general public shall be submitted prior to the commencement of any site work. The Health and Safety Plan shall be site specific and describe potential site hazards, show the route to the nearest medical facility, and include the names and phone numbers of emergency contract persons. The Health and Safety Plan shall satisfy the requirements of Cal-OSHA and any other regulatory agency requirements.

All work shall be performed in a manner so as to minimize disruptions to Permitter's operation, to allow unimpeded traffic flow and to prevent damage to the existing facilities.

Permitter will expedite review and approval of work plans and will provide comments not later than 5 days after receipt of plans.

Two sets of each work plan shall be submitted to Permitter.

8. Cost of Work, Protection of Traffic, and Working Procedures. All costs related to Permittee's operations upon Premises shall be at Permittee's expense. All work upon or in connection with the use of Premises shall be done at such times and in such manner as not to interfere with the current or future use of Premises and District's adjacent operations. Permittee shall be responsible for the provision of barriers, directions, signage, and other forms of notice to the general public, if applicable, to assure the safe, smooth, and uninterrupted flow of traffic around Project site and on and about Premises. Permittee shall keep District's Premises in a reasonably neat and safe condition, failing which, District, after twenty-four (24) hours' prior notice to Permittee, may do so at Permittee's expense.

Upon completion of work, the property shall be left in a neat and safe condition reasonably satisfactory to District.

Permittee shall fully pay for all materials joined or affixed to Premises and shall pay in full all persons who perform labor on Premises. As District is a public entity, its property is not subject to mechanics' or materialmen's liens, and nothing in this Permit shall be construed to make its property subject to such liens.

9. No Hazardous Materials. No hazardous materials, excluding normal construction materials such as fuel, oil, etc., shall be handled at any time upon Premises. Should any discharge, leakage, spillage, emission or pollution of any type occur upon or from Premises due to Permittee's use and occupancy thereof, Permittee, at Permittee's expense, shall clean all affected property in compliance with applicable laws and regulations.
10. Indemnity and Insurance. Permittee agrees to require its contractor(s) to indemnify the District, its directors, officers, employees, and agents from suits; actions; or claims resulting from construction operations or arising out of the negligent performance of the contract.

Prior to entry upon Premises, Permittee shall provide District with satisfactory evidence, in the form of a Certificate of Insurance, that Permittee's contractors are insured in accordance with the following, which insurance shall remain in effect with respect to each contractor throughout the term of their use of the Premises under this Permit:

- a. Workers' Compensation and Employers' Liability Insurance. Workers' Compensation Insurance and Employers' Liability Insurance in accordance with the laws of the State of California. Employers' Liability Insurance shall have coverage for a minimum liability of One Million Dollars (\$1,000,000) covering the contractor's employees engaged in the work. Permittee shall insure the procurement and maintenance of such insurance by all contractors or subcontractors engaged on project.
- b. Personal Injury and Property Damage Liability Insurance. Personal Injury and Property Damage Liability Insurance, including, but not limited to, what is commonly referred to as coverage for "XCU Hazards" (Explosion, Collapse, and Underground Property Damage), which shall include as additional insured, the District, its successors and assigns and its respective directors, officers, employees and agents (collectively, "Insureds"), as they now or as they may hereafter be constituted, singly, jointly, or severally. Such insurance shall include Automobile Bodily Injury and Property Damages coverage, including owned, hired, and non-owned vehicles.

Said insurance shall be subject to a combined single limit of liability of not less than One Million Dollars (\$1,000,000).

Prior to entering onto Premises, Permittee shall ensure that its Contractor files Certificate(s) of Insurance with District evidencing the required coverage and endorsement(s) and, upon request, a certified duplicate original of any of those policies. Said endorsements and Certificate(s) of Insurance shall stipulate:

- (1) The insurance company(ies) issuing such policy(ies) shall give written notice to District of any material alteration, cancellation, non-renewal, or reduction in aggregate limits, if such limits apply, and provide at least thirty (30) days' notice of cancellation.
- (2) That the policy(ies) is Primary Insurance and the insurance company(ies) providing such policy(ies) shall be liable thereunder for the full amount of any loss or claim that the insured is liable for, up to and including the total limit of liability, without right of contribution from any other insurance effected or which may be effected by the Insureds.
- (3) The policy shall also stipulate: Inclusion of the Insureds as additional insureds shall not in any way affect its rights either as respects any claim, demand, suit or judgment made, brought or recovered against the contractor. Said policy shall protect the contractor and the Insureds in the same manner as though a separate policy had been issued to each, but nothing in said policy shall operate to increase the insurance company's liability as set forth in its policy beyond the

amount or amounts shown or to which the insurance company would have been liable if only one interest had been named as an insured.

The insurance policy(ies) shall be written by an insurance company or companies acceptable to District. Such insurance company shall be authorized to transact business in the state of California.

11. Permits from Other Agencies; Hazardous Materials. Permittee shall comply, at Permittee's expense, with all applicable laws, regulations, rules and orders with respect to the use of Premises, and shall obtain all required licenses, permits or other approvals in connection with Permittee's use of Premises. Permittee shall furnish satisfactory evidence of such compliance upon request of District.
12. Assumption of Risk. Permittee shall assume all risk of damage to any and all other property of Permittee, or any property under the control or custody of Permittee while upon or near Premises of District incident to the use of Premises, provided, however, such assumption by Permittee shall not include any damage caused by the active negligence and/or willful misconduct of District. Permittee releases District from any liability, including claims for damages or extra compensation, arising from construction delays due to transportation activities by District or transportation operations by any agency as authorized by District. District agrees to coordinate related construction activities with Permittee.
13. Subcontractors. Any person, firm or corporation Permittee authorizes to work upon Premises, including any contractor(s) and subcontractor(s), shall be deemed to be Permittee's agent and shall be subject to all the applicable terms hereof.
14. Restoration of Premises. Upon termination of this Permit as described in Paragraph 4, Permittee, and its duly authorized agents, representatives and contractors, at their own expense, shall remove from Premises all property they own or control, all debris and other materials, and restore Premises to its condition prior to entry or to a condition reasonably satisfactory to District. Upon Permittee's failure to do this, District, upon forty-eight (48) hours' prior notice to Permittee, may perform such work at Permittee's expense.
15. Severability. If any provision of this Permit shall be for any reason unenforceable, in any respect, such unenforceability shall not affect the other provisions of this Permit.
16. Entire Agreement; Modification. This Permit, including any attachments, constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes any prior understanding or agreement, oral or written. It may not be amended or modified except by a written agreement executed by authorized representatives by both parties.

17. Notices. All communications relating to the day-to-day activities of the Work shall be exchanged between District's Engineer and Permittee's Resident Engineer. All communications regarding interpretation of the terms of this Permit and changes thereto shall be in writing and may be given by personal delivery to the designated representative of the parties or by mailing the same, postage prepaid, addressed as follows:

If to DISTRICT:

Golden Gate Bridge, Highway and Transportation District
Attention: Norma Jellison, Property Development and Management Specialist
1011 Andersen Drive
San Rafael, CA 94901-5318

If to PERMITTEE:

Federal Highway Administration
Attn.: Nathan Allen, Project Manager/Construction Operations Engineer
Central Federal Lands Highway Division
12300 West Dakota Avenue, Suite 380
Lakewood, CO 80228

18. Waiver. Any waiver of any breach or covenant of this Permit must be in writing executed by a duly authorized representative of the party waiving the breach. A waiver by any of the parties of a breach or covenant of this Permit shall not be construed to be a waiver of any succeeding breach or any other covenant unless specifically and explicitly stated in such waiver.
19. Time of Essence. Time is and shall be of the essence of this Permit and of each and every provision contained in this Permit.
20. No Third-Party Beneficiaries. Nothing contained in this Permit shall be construed to create and the parties do not intend to create any rights in third parties.
21. Construction of Agreement. The provisions in this Permit shall be construed and given effect in a manner that avoids any violation of statute, regulation or law. District and Permittee agree that in the event any provision in this Permit is held to be invalid or void by any court of competent jurisdiction, the invalidity of any such provision shall in no way affect any other provision in this Permit. District and Permittee acknowledge that they have each contributed to the making of this Permit and that, in the event of a dispute over the interpretation of this Permit, the language of the Permit will not be construed against one party in favor of the other. District and Permittee further acknowledge that they have each had an adequate opportunity to consult with counsel in the negotiation and preparation of this Permit.
22. Captions. The captions in this Permit are for convenience only and are not a part of this Permit. The captions do not in any way limit or amplify the provisions hereof, and shall have no effect upon the construction or interpretation of any part hereof.

IN WITNESS WHEREOF, the parties have executed this Permit as of the Effective Date by their duly authorized representatives.

**District: GOLDEN GATE BRIDGE,
HIGHWAY AND TRANSPORTATION
DISTRICT**


**Permittee: FEDERAL HIGHWAY
ADMINISTRATION**

By: 

Denis J Mulligan
Its: General Manager

By: 

Nathan Allen
Its: Project Manager

Approved as to Form:


Its: Legal Counsel

Approved as to Form:


Its: Legal Counsel

EXHIBIT A

FHWA ALEXANDER AVENUE DANES DRIVE INTERSECTION PROJECT*

Sheets attached as Exhibit A are for work on District Premises.

*The full set of plans/drawings, including applicable specifications & requirements are available from FHWA