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STRUCTURE PLANS

15-20 ROUTE 215 STRUCTURE PLANS AND DETAILS

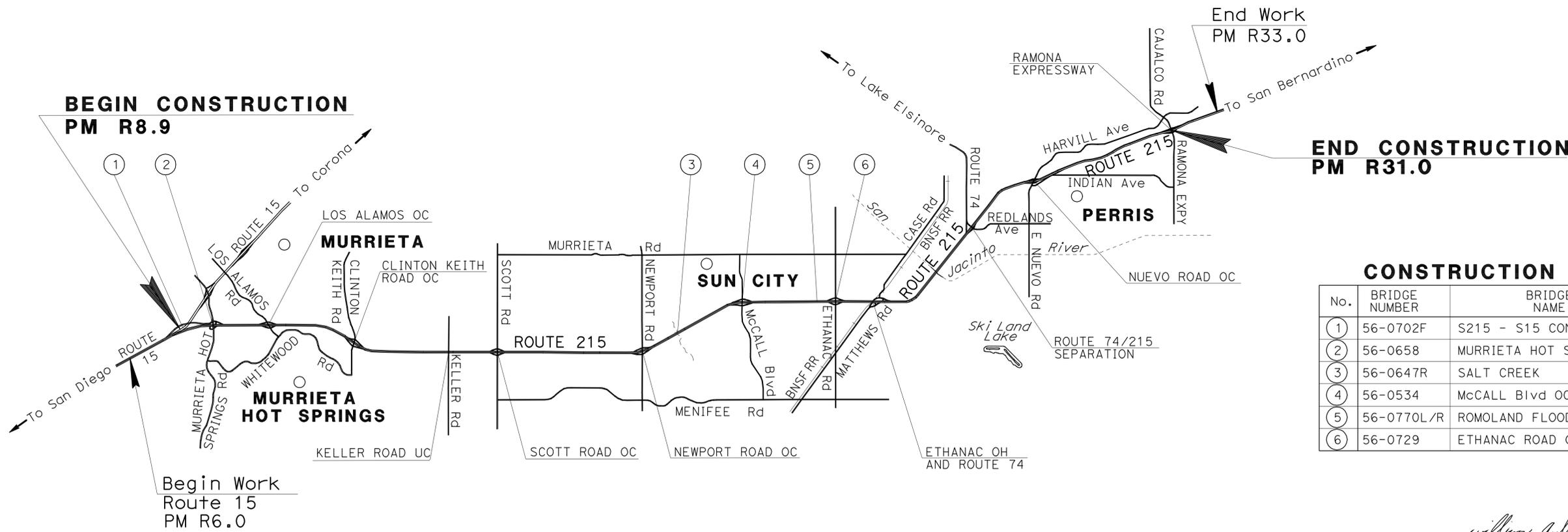
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA  
**DEPARTMENT OF TRANSPORTATION**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN RIVERSIDE COUNTY NEAR MURRIETA**  
**ON ROUTE 215 AT VARIOUS LOCATIONS**  
**FROM ROUTE 215/15 SEPARATION**  
**TO RAMONA EXPRESSWAY**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	1	20

LOCATION MAP



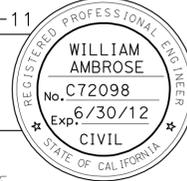
**CONSTRUCTION LOCATIONS**

No.	BRIDGE NUMBER	BRIDGE NAME	PM
1	56-0702F	S215 - S15 CONNECTOR OC	R8.94
2	56-0658	MURRIETA HOT SPRINGS ROAD OC	R9.51
3	56-0647R	SALT CREEK	R18.92
4	56-0534	McCALL Blvd OC	R20.84
5	56-0770L/R	ROMOLAND FLOOD CONTROL CHANNEL	22.33
6	56-0729	ETHANAC ROAD OC	22.76

PROJECT MANAGER  
CATALINO PINING

DESIGN ENGINEER  
WILLIAM AMBROSE

PROJECT ENGINEER      DATE 11-02-11  
 REGISTERED CIVIL ENGINEER  
**December 27, 2011**  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

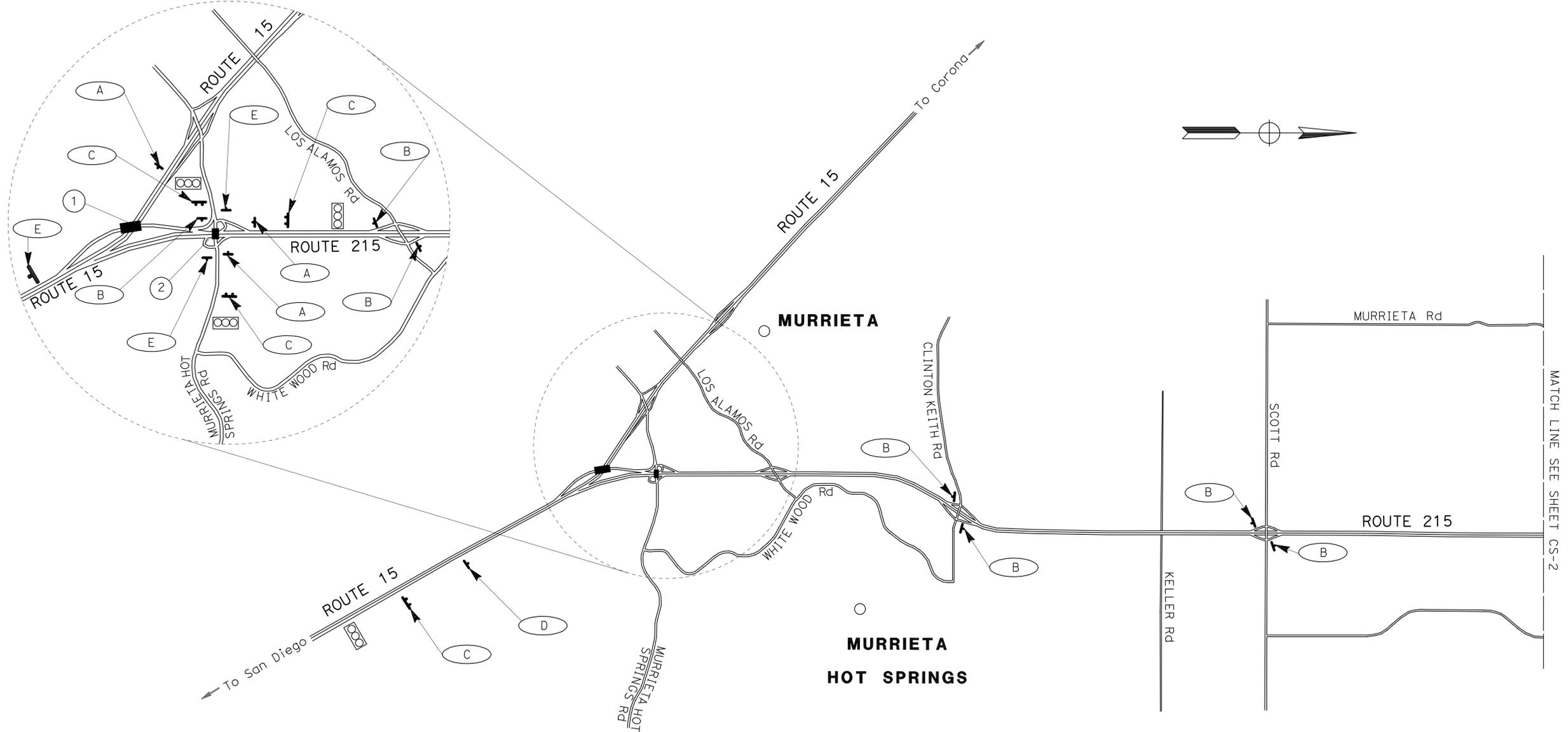
DATE PLOTTED => 28-DEC-2011    TIME PLOTTED => 08:21

**NOTES:**

1. LOCATION AND POSITION OF THE CONSTRUCTION AREA SIGNS ARE APPROXIMATE. THE EXACT LOCATION AND POSITION WILL BE DETERMINED BY THE ENGINEER.
2. REFER TO STD PLANS T10M T11, T12 AND T13 FOR TRAFFIC CONTROL REQUIREMENTS AND USE SURFACE MOUNTED CHANNELIZERS IN PLACE OF CONES.
3. MINIMUM SPACING BETWEEN TWO CONSECUTIVE SIGNS SHALL BE 500 FEET OR AS DETERMINED BY THE ENGINEER.
4. SIGN POST LENGTH ARE APPROXIMATE. EXACT SIZE AND LENGTH WILL BE DETERMINED BY THE ENGINEER.
5. REFER TO CS-2 FOR CONSTRUCTION AREA SIGN TABLE.

**LEGEND:**

-  CONSTRUCTION AREA SIGN (1 POST)
-  CONSTRUCTION AREA SIGN (2 POST)
-  CONSTRUCTION AREA SIGN NUMBER
-  ROAD WORK AREA
-  PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)



**CONSTRUCTION LOCATIONS**

No.	BRIDGE No.	STRUCTURE NAME	PM
①	56-0702F	S215-S15 CONNECTOR	R8.94
②	56-0658	MURRIETA HOT SPRINGS ROAD OC	R9.51
③	56-0647R	SALT CREEK	R18.92
④	56-0534	McCALL BLVD OC	R20.84
⑤	56-0770L/R	ROMOLAND FLOOD CONTROL CHANNEL	22.33
⑥	56-0729	ETHANAC ROAD OC	22.76

**PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)**

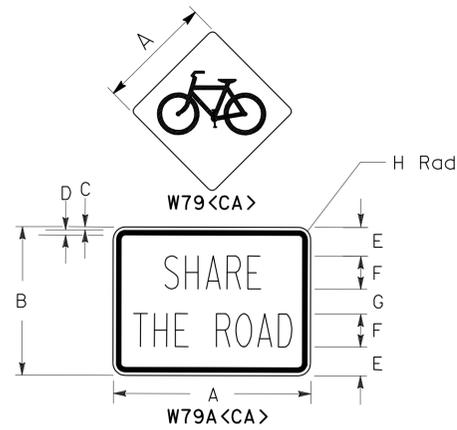
EA
9

**CONSTRUCTION AREA SIGNS**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

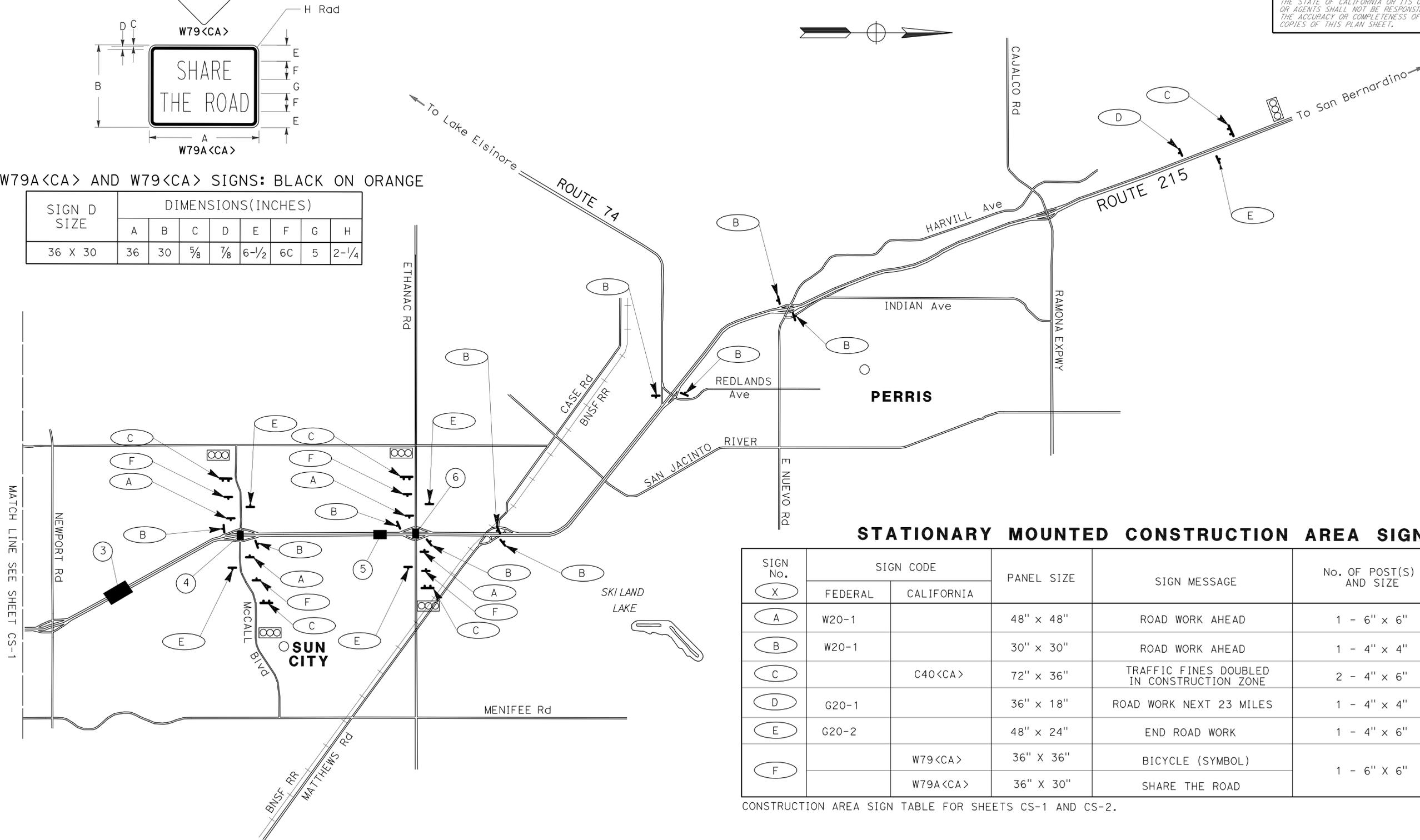
NO SCALE

**CS-1**



W79A<CA> AND W79<CA> SIGNS: BLACK ON ORANGE

SIGN D SIZE	DIMENSIONS(INCHES)							
	A	B	C	D	E	F	G	H
36 X 30	36	30	5/8	7/8	6-1/2	6C	5	2-1/4



**STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

SIGN No.	SIGN CODE		PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS
	FEDERAL	CALIFORNIA				EA
(A)	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	7
(B)	W20-1		30" x 30"	ROAD WORK AHEAD	1 - 4" x 4"	17
(C)		C40<CA>	72" x 36"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONE	2 - 4" x 6"	9
(D)	G20-1		36" x 18"	ROAD WORK NEXT 23 MILES	1 - 4" x 4"	2
(E)	G20-2		48" x 24"	END ROAD WORK	1 - 4" x 6"	9
(F)		W79<CA>	36" X 36"	BICYCLE (SYMBOL)	1 - 6" X 6"	4
		W79A<CA>	36" X 30"	SHARE THE ROAD		

CONSTRUCTION AREA SIGN TABLE FOR SHEETS CS-1 AND CS-2.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: WILLIAM E. WASSER  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 PATTI BARTOLI DARYUSH NAMI  
 REVISED BY: DATE REVISED:

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

NO SCALE

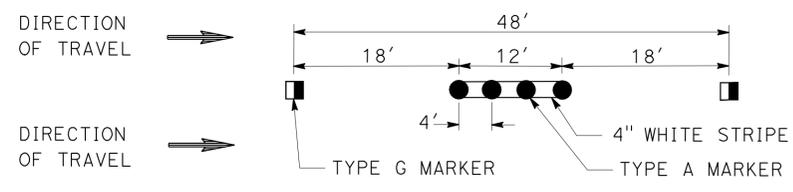
**CS-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	4	20

*W.E. Wasser* 11-02-11  
 REGISTERED CIVIL ENGINEER DATE  
 12-27-11  
 PLANS APPROVAL DATE

W.E. WASSER  
 No. 37378  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**NOTES:**  
 1. MARKERS SHALL BE INSTALLED BEFORE PLACING THE WHITE STRIPE.  
 2. WHITE STRIPE SHALL BE SPRAYABLE THERMOPLASTIC.

**DETAIL 13**

● TYPE A - WHITE NON-REFLECTIVE MARKER  
 ■ TYPE G - ONE WAY CLEAR RETROREFLECTIVE MARKER

**PAVEMENT DELINEATION QUANTITIES**

LOCATION	DETAIL No.	REMOVE THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)		REMOVE THERMOPLASTIC PAVEMENT MARKING	REMOVE PAVEMENT MARKER	8" THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)				PAVEMENT MARKER				REMARKS
		YLW	WHT					8" YLW LF	4" YLW LF	4" WHT LF	8" WHT LF	NON-REFLECTIVE		RETRO-REFLECTIVE		
		LF	LF									SQFT	EA	EA	EA	
S215 S15 CONNECTOR BRIDGE No. 56-0702F	DETAIL 13M		204		86					734		68	17		STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
	DETAIL 25	734			17				734					17	STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
	DETAIL 27B		734							734					STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
MURRIETA HOT SPRINGS Rd OC BRIDGE No. 56-0658	DETAIL 12		792		66								66		BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DETAIL 36A		200		6						100		6		BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DETAIL 27B		450							450					BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	4" SOLID STRIPE		200							200					BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	LIMIT LINE				80		80								BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	TYPE I (18')				126		50								BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
SALT CREEK BRIDGE No. 56-0647R	DETAIL 13M		180		75					633		60	15		STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
	DETAIL 25	633			15				633				15		STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
	DETAIL 27B		633							633					STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
McCALL Blvd OC BRIDGE No. 56-0534	DETAIL 12		288		24					1,071			24		BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DETAIL 29	5,000			54				1,250					54	BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DETAIL 38		932		21	466							21		BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	4" SOLID STRIPE		200							200					BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DIAGONAL STRIPE	518							259						BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	LIMIT LINE			110		110									BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
ROMOLAND FLOOD CONTROL CHANNEL BRIDGE No. 56-0770L/R	DETAIL 13M		180		75					656		60	15		STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
	DETAIL 25	656			15				656				15		STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
	DETAIL 27B		656							656					STRIPE 100' BEYOND EA. SIDE OF BR. DECK	
ETHANAC ROAD OC BRIDGE No. 56-0729	DETAIL 12		168		14					627			14		BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DETAIL 22	1,240							620					54	BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DETAIL 27B		665							665					BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DETAIL 38		900		20	450							20		BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	DIAGONAL STRIPE		858								429				BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	LIMIT LINE			43		43									BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	CROSSWALK			170		170									BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
	TYPE IV ARROW			192		60									BEYOND EA. SIDE OF BRIDGE DECK, STRIPE TO THE LIMIT LINES	
<b>SUB-TOTAL</b>		8,781	8,240						259	3,893	10,199	529		198	47	108
<b>TOTAL</b>		8,781	8,240	913	488	916	573			14,880		188		353		

REMOVAL OF TRAFFIC STRIPE INCLUDES TRAFFIC STRIPE TO BE REMOVED BEYOND EACH APPROACH/DEPARTURE OF THE BRIDGE DECK.  
 THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE) INCLUDES TRAFFIC STRIPE TO BE APPLIED BEYOND EACH APPROACH/DEPARTURE OF THE BRIDGE DECK.

**PAVEMENT DELINEATION QUANTITIES**

**PDQ-1**

APPROVED FOR PAVEMENT DELINEATION QUANTITIES ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	5	20

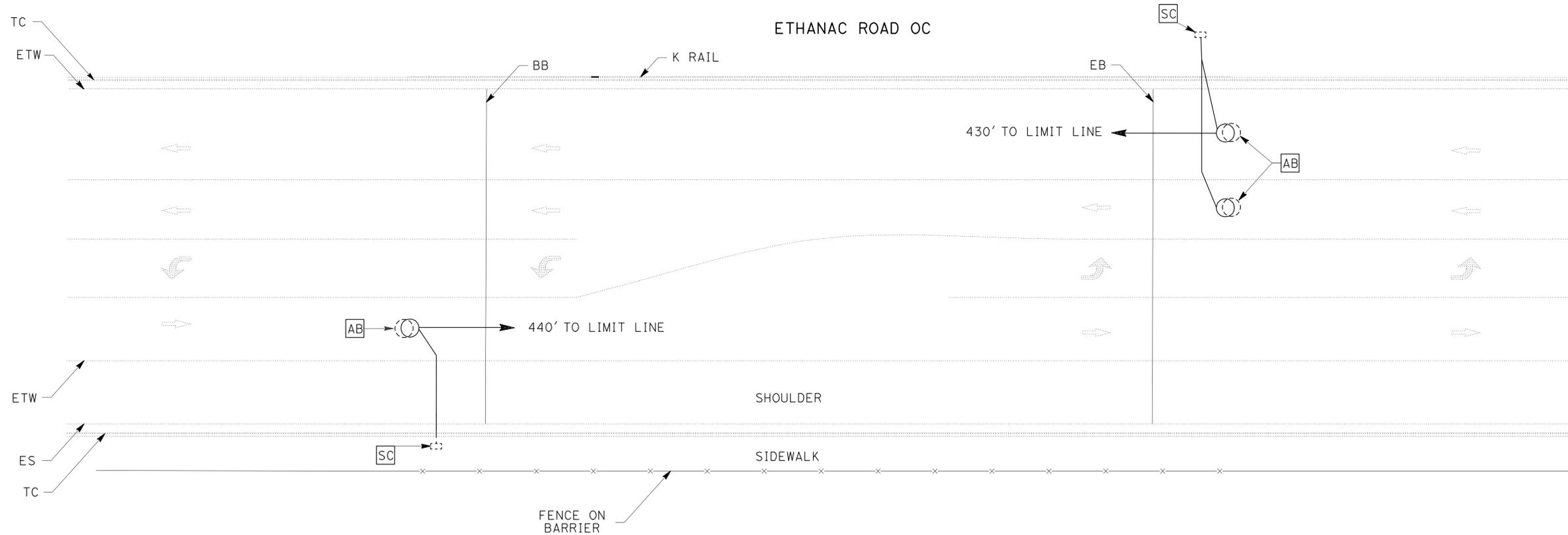
*Dilara Zaman* 11-02-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 12-27-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 DILARA H. ZAMAN  
 No. E 18356  
 Exp 06/30/12  
 ELECTRICAL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTE (THIS SHEET ONLY):**

1. NEW DETECTOR LOOPS SHALL BE INSTALLED AT EXISTING LOCATIONS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: DAVID A GONZALEZ  
 CALCULATED/DESIGNED BY: NASIMA HYDER  
 CHECKED BY: DILARA ZAMAN  
 REVISED BY: N H  
 DATE REVISED: 08/2011

**INDUCTIVE LOOP DETECTOR  
(LOCATION 6)**

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

**E-1**

LAST REVISION | DATE PLOTTED => 28-DEC-2011  
 10-31-11 | TIME PLOTTED => 08:27

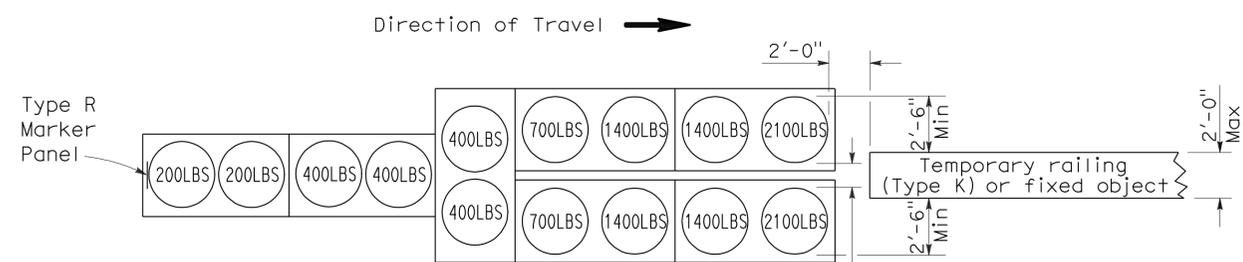
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	6	20

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

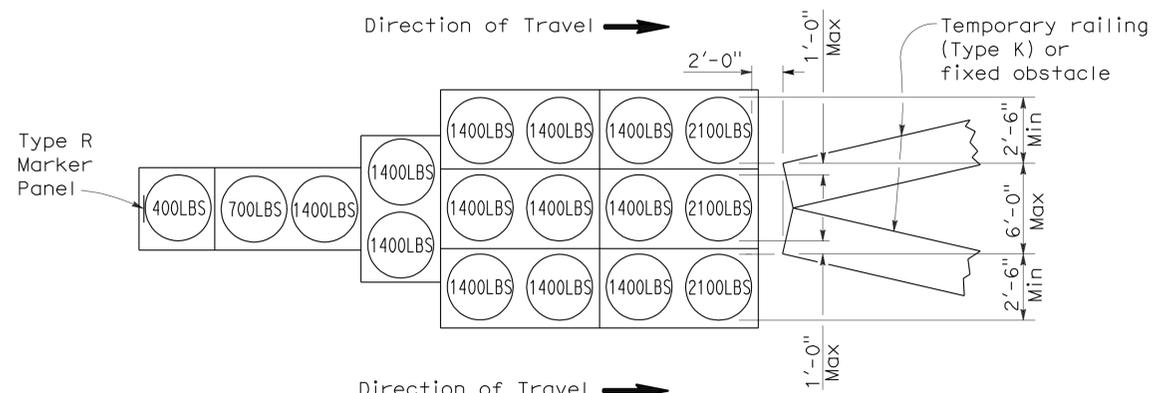
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To accompany plans dated 12-27-11



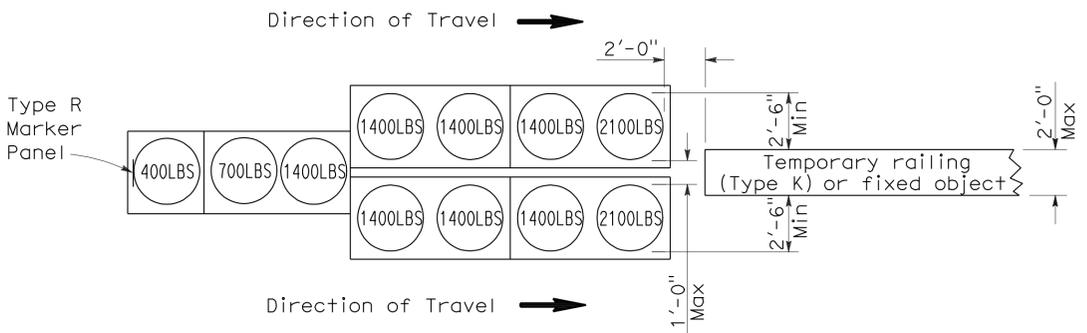
**ARRAY 'TU14'**

Approach speed 45 mph or more



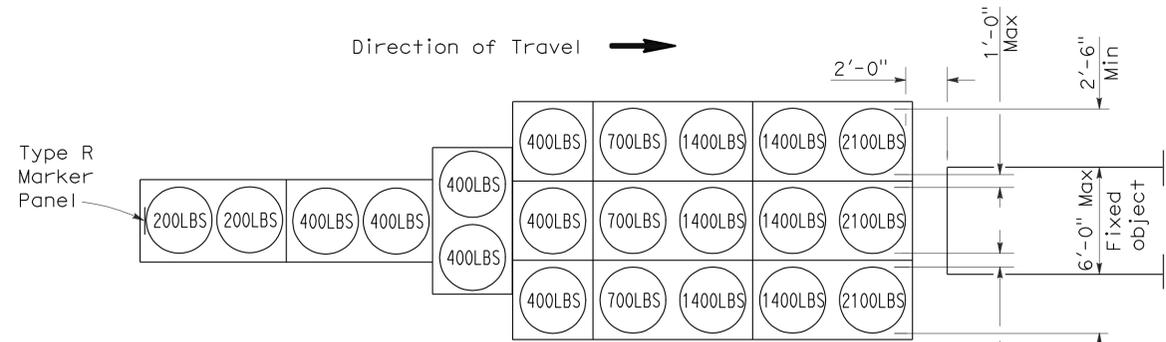
**ARRAY 'TU17'**

Approach speed less than 45 mph



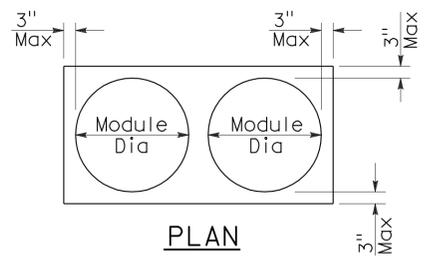
**ARRAY 'TU11'**

Approach speed less than 45 mph

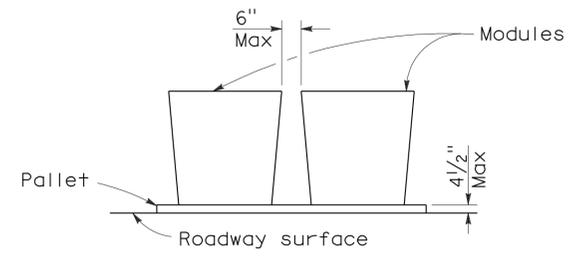


**ARRAY 'TU21'**

Approach speed 45 mph or more



**PLAN**



**ELEVATION**

**CRASH CUSHION PALLET DETAIL**

See Note 7

**NOTES:**

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A  
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T1A**

2006 REVISED STANDARD PLAN RSP T1A

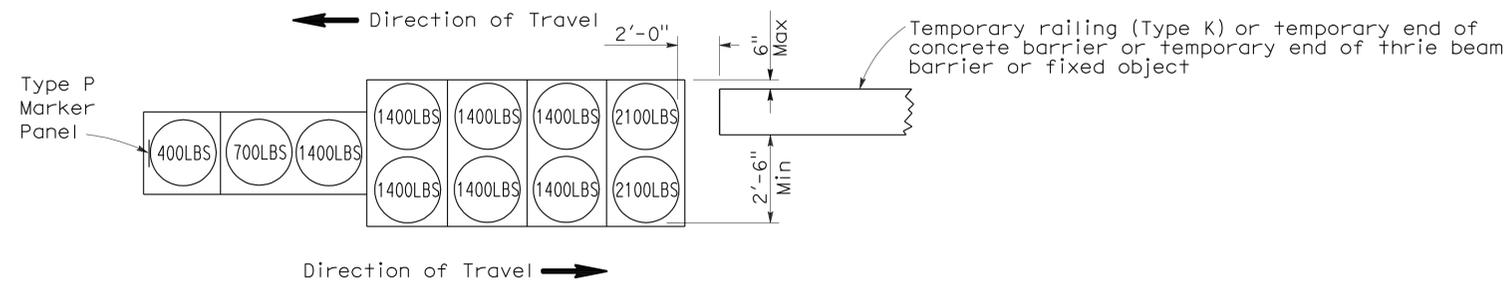
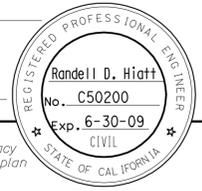
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	7	20

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

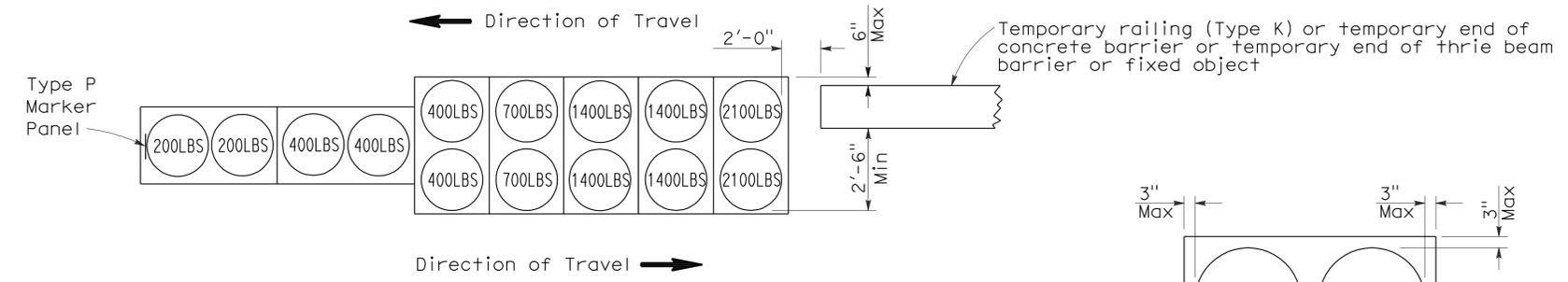
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

To accompany plans dated 12-27-11



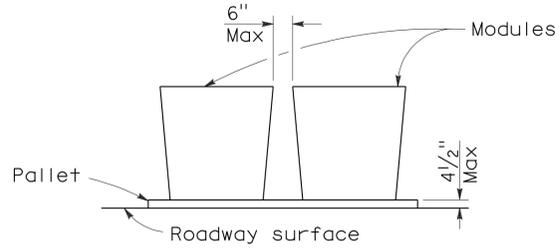
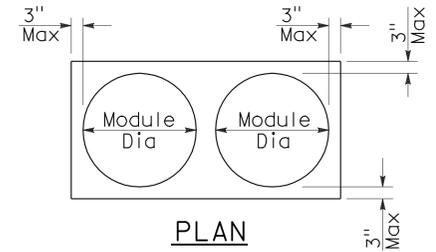
**ARRAY 'TB11'**

Approach speed less than 45 mph



**ARRAY 'TB14'**

Approach speed 45 mph or more



**CRASH CUSHION PALLET DETAIL**  
See Note 7

**NOTES:**

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(BIDIRECTIONAL)**  
NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B  
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T1B**

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	8	20

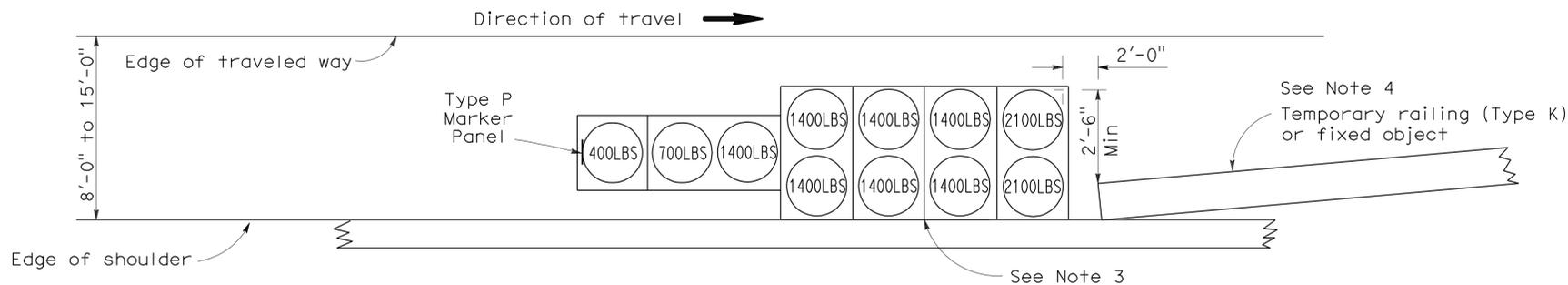
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

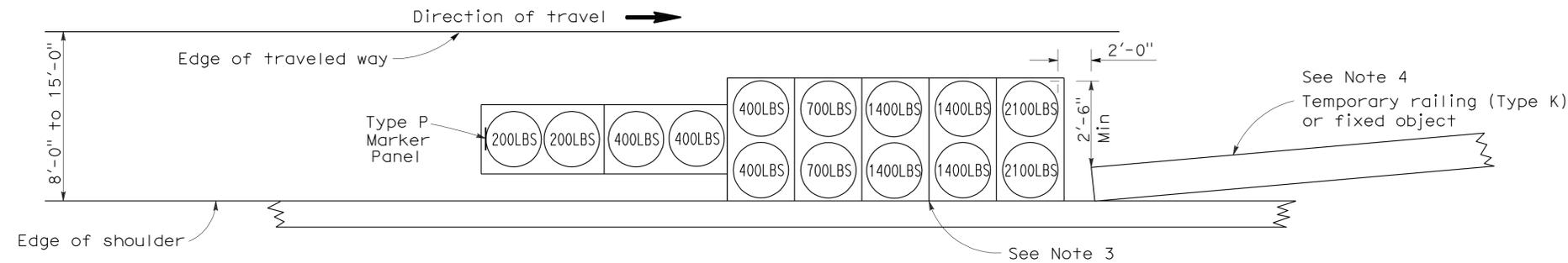
*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

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To accompany plans dated 12-27-11



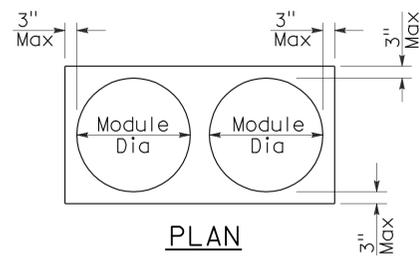
**ARRAY 'TS11'**  
Approach speed less than 45 mph  
See Note 9



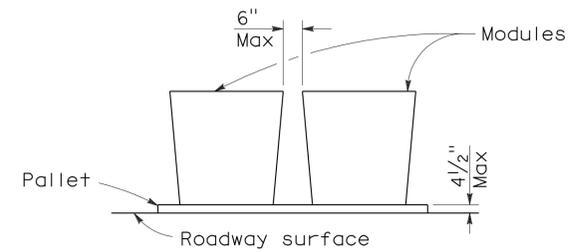
**ARRAY 'TS14'**  
Approach speed 45 mph or more  
See Note 9

**NOTES:**

- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.



**PLAN**



**ELEVATION**

**CRASH CUSHION PALLET DETAIL**

See Note 11

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(SHOULDER INSTALLATIONS)**

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2  
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T2**

2006 REVISED STANDARD PLAN RSP T2

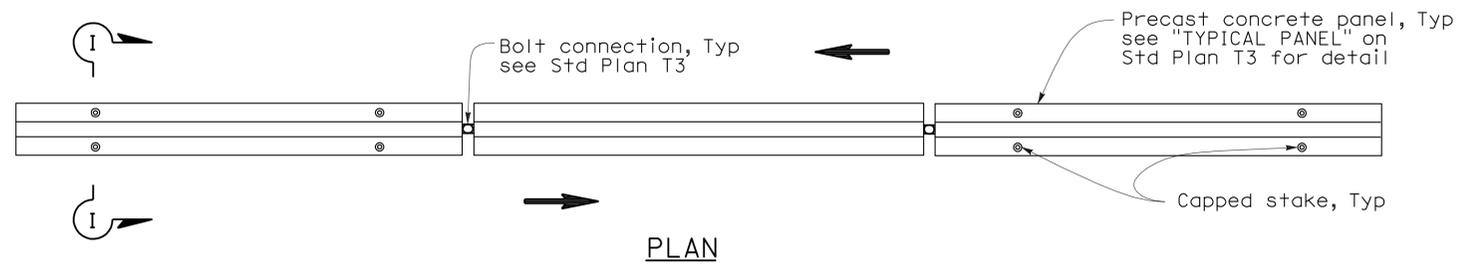
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	9	20

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

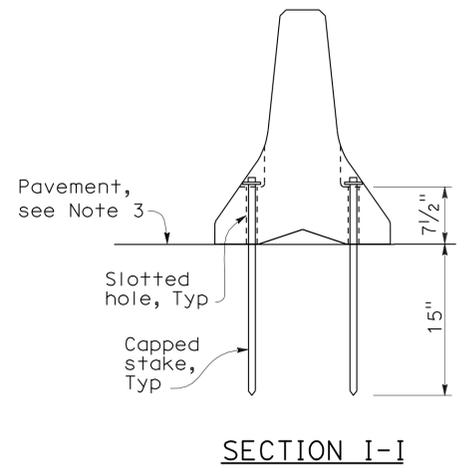
May 20, 2011  
PLANS APPROVAL DATE

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To accompany plans dated 12-27-11

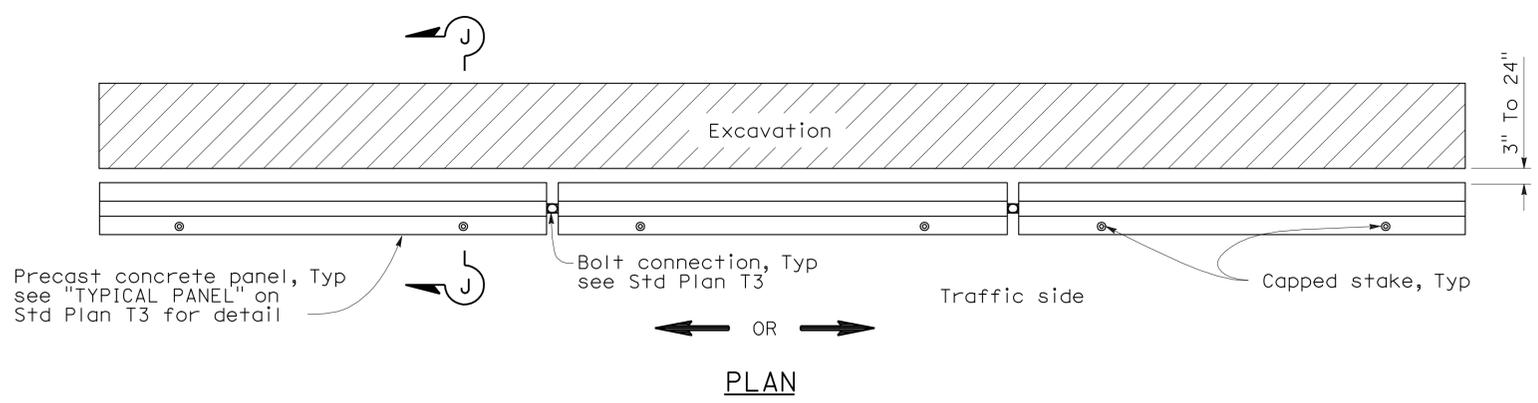


**RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC**  
See Note 1

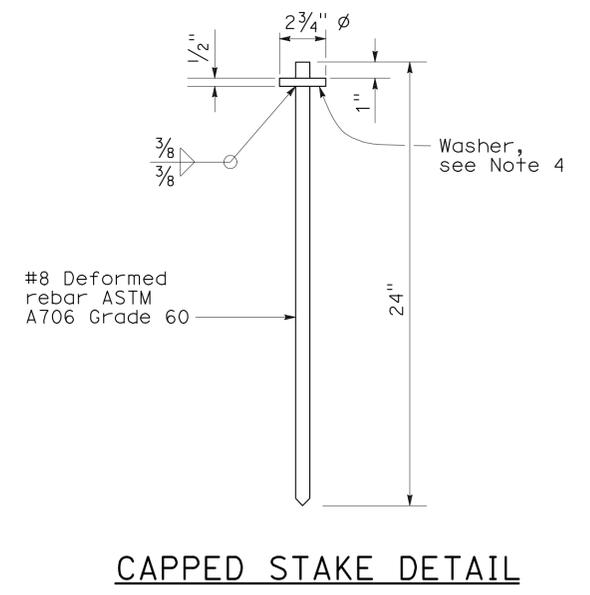
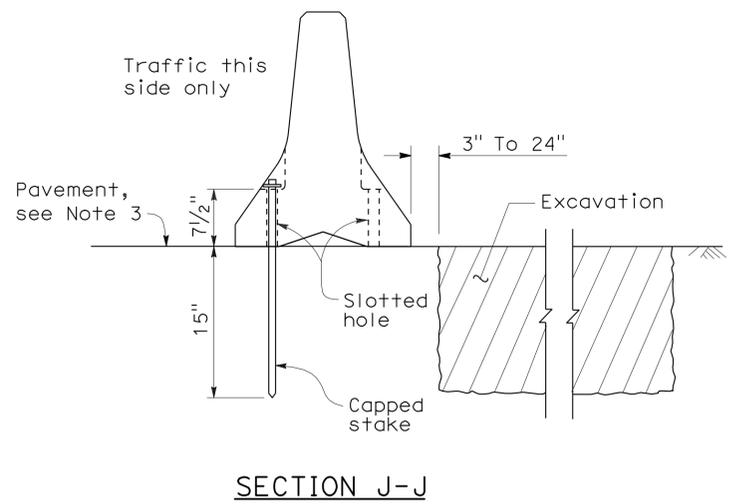


**NOTES:**

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by  $\Rightarrow$ .



**RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION**  
See Note 2



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING  
(TYPE K)**

NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS  
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A



# ELECTROLIERS

STANDARD TYPES		
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		
32		
35		
36-20A		

**NOTES:**

- Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
- Variations noted adjacent to symbol on project plans.

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

## STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

# ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

## PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	11	20

*Jeffery G. McRae*  
REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
PLANS APPROVAL DATE

Jeffery G. McRae  
No. E14512  
Exp. 6-30-08  
ELECTRICAL  
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 12-27-11

## SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

### NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A  
DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1A**

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	12	20

*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 Jeffrey G. McRae  
 No. E14512  
 Exp. 6-30-08  
 ELECTRICAL  
 STATE OF CALIFORNIA

To accompany plans dated 12-27-11

### CONDUIT

PROPOSED	EXISTING	
		Lighting Conduit, unless otherwise indicated or noted
		Traffic signal conduit
		Communication conduit
		Telephone conduit
		Fire alarm conduit
		Fiber optic conduit
		Conduit termination
		Conduit riser in/on structure or service pole

### SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" indicates all non-arrow sections lowered "LG" indicates lowered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

### SERVICE EQUIPMENT

PROPOSED	EXISTING	
		Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

### POLE-MOUNTED SERVICE DESIGNATION



### ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

### SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

### NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS**  
**(SYMBOLS AND ABBREVIATIONS)**  
 NO SCALE

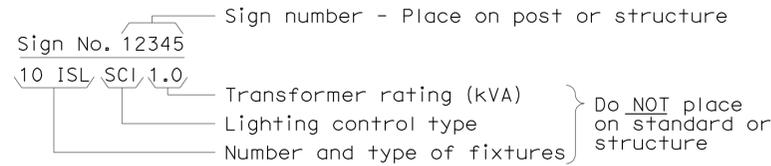
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1B**

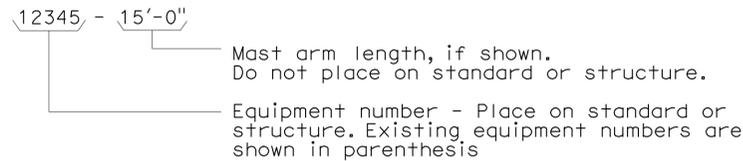
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

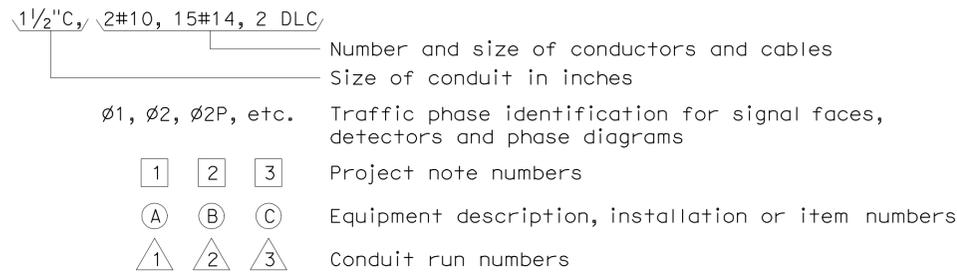
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



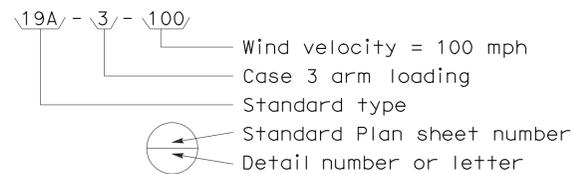
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



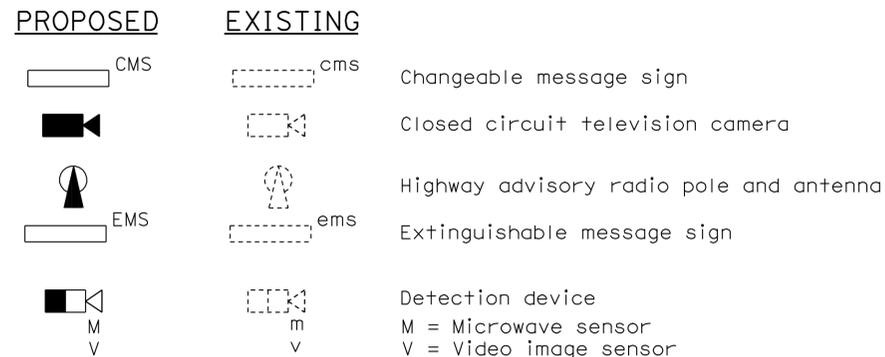
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



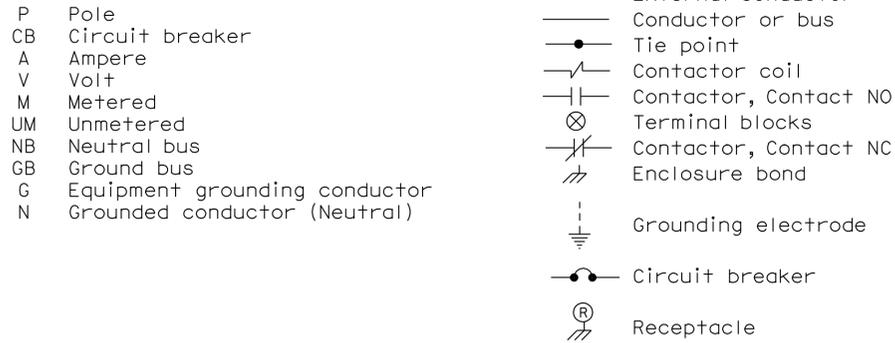
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



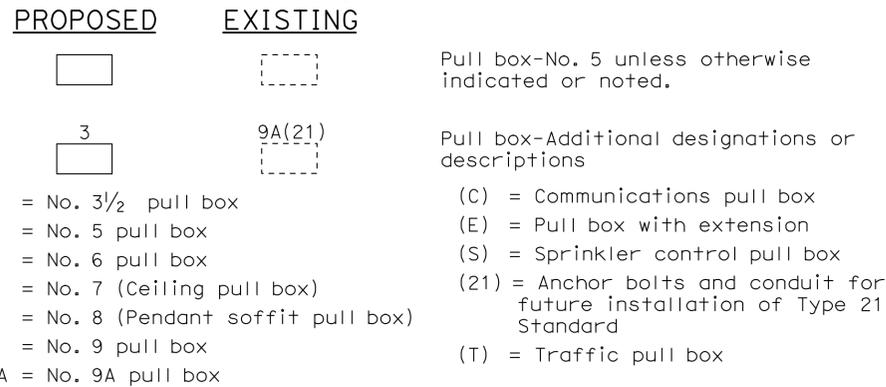
### MISCELLANEOUS EQUIPMENT



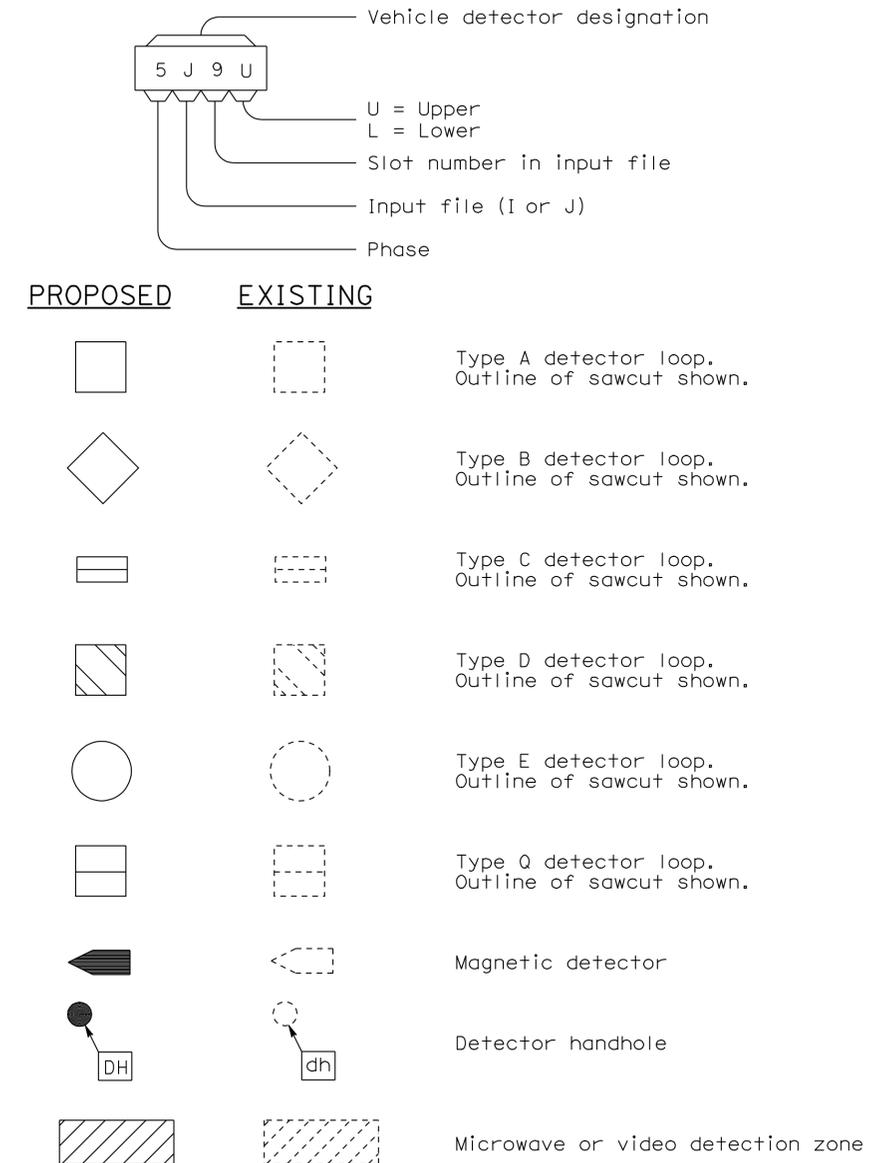
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

## ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C  
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-1C

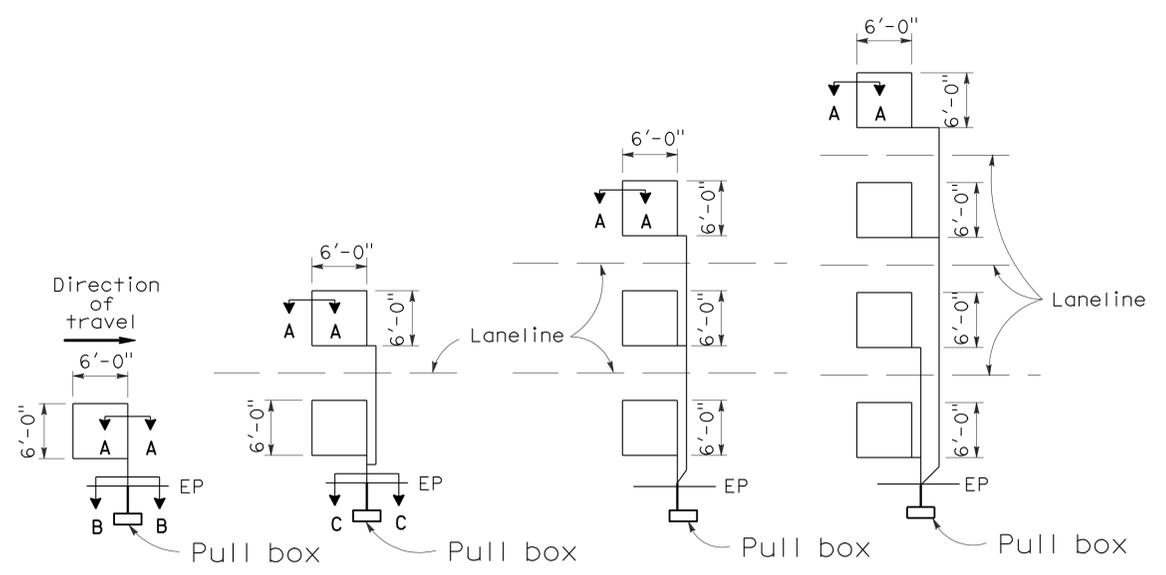
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	14	20

*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
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2006 REVISED STANDARD PLAN RSP ES-5A

## LOOP INSTALLATION PROCEDURE

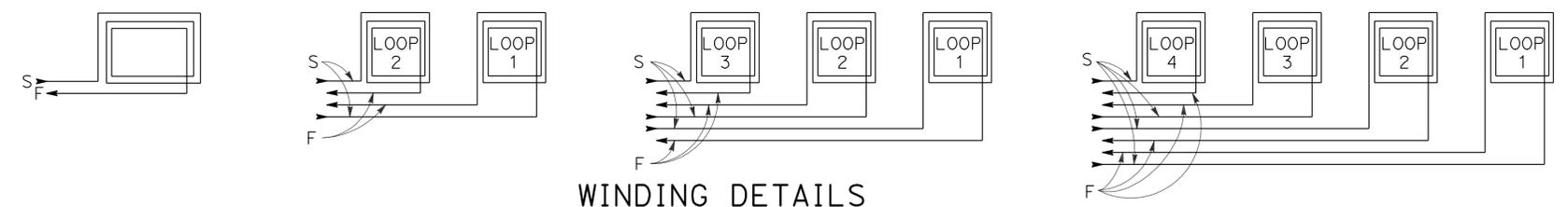
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



**TYPE 1A INSTALLATION**    **TYPE 2A INSTALLATION**    **TYPE 3A INSTALLATION**    **TYPE 4A INSTALLATION**

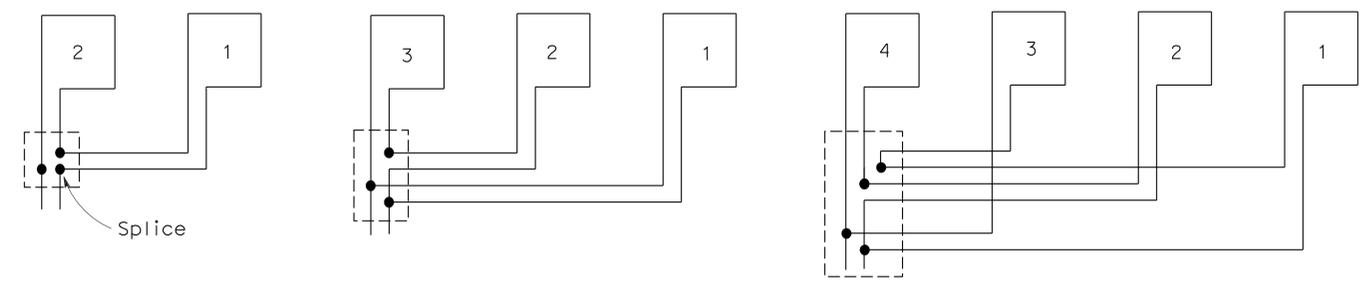
### SAWCUT DETAILS

- (Type A loop detector configurations illustrated)
- 1A thru 4A = 1 Type A loop configuration in each lane.
  - 1B thru 4B = 1 Type B loop configuration in each lane.
  - 1C = 1 Type C loop configuration entering lanes as required.
  - 1D thru 4D = 1 Type D loop configuration in each lane.
  - 1E thru 4E = 1 Type E loop configuration in each lane.
  - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



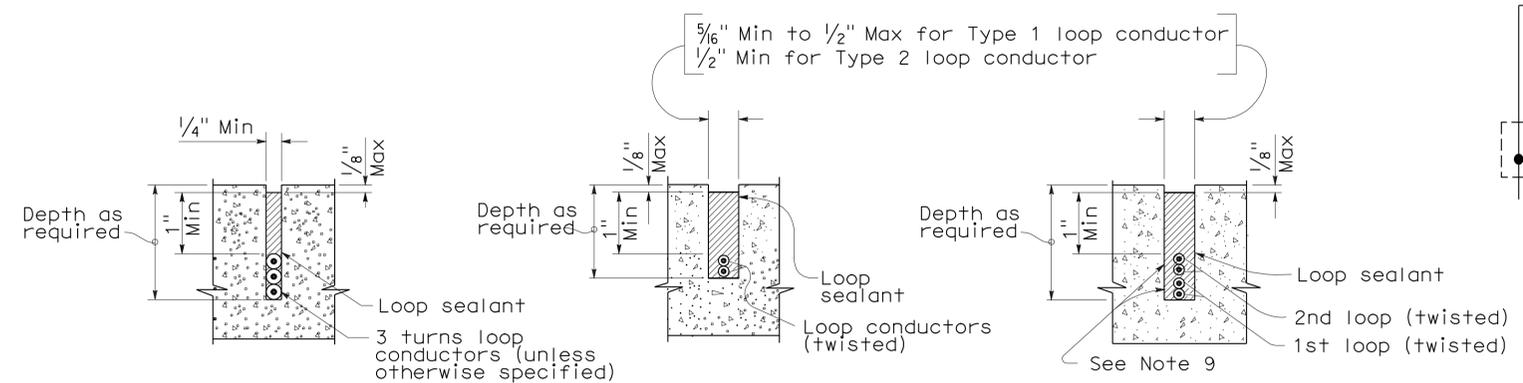
### WINDING DETAILS

See Notes 6 and 7



### TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



**SECTION A-A**    **SECTION B-B**    **SECTION C-C**  
**SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR**

## ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-5A**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	215	R8.9/R31.0	15	20

Edward Li 09/09/11  
REGISTERED CIVIL ENGINEER DATE

12-27-11  
PLANS APPROVAL DATE

No. C56706  
Exp. 06/30/13  
CIVIL  
STATE OF CALIFORNIA

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**INDEX TO PLANS**

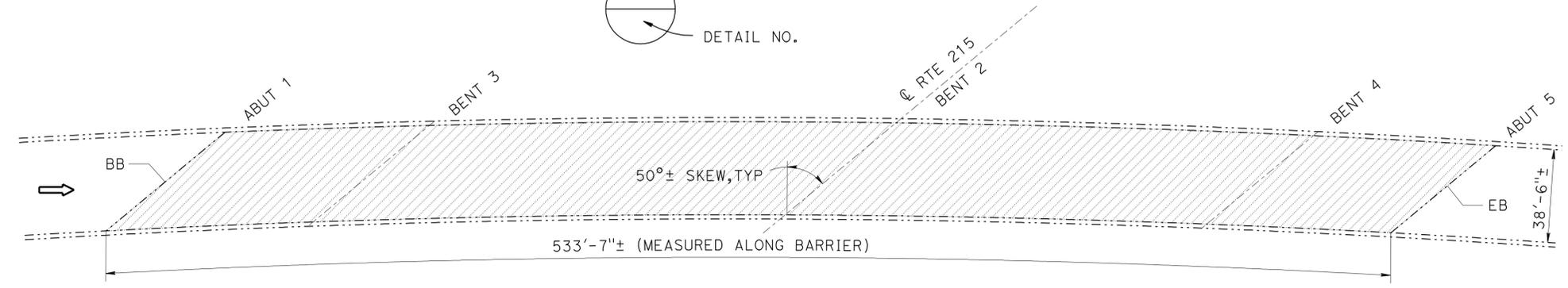
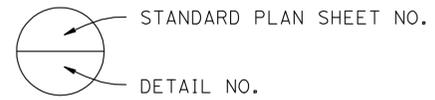
SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	MISCELLANEOUS DETAILS NO. 1
5	MISCELLANEOUS DETAILS NO. 2
6	STRUCTURE APPROACH TYPE R(30S)

**STANDARD PLANS DATED MAY 2006**

SHEET NO.	TITLE
A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
A10C	SYMBOLS (SHEET 1 OF 2)
A10D	SYMBOLS (SHEET 2 OF 2)
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B11-47	CABLE RAILING

**LEGEND:**

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of clean and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete as directed by the Engineer.



**S215-ROUTE 15 CONNECTOR**

Br No. 56-0702F, Rte 215, PM R8.94  
1" = 30'



S215-ROUTE 15 CONNECTOR BRIDGE NO 56-0702F

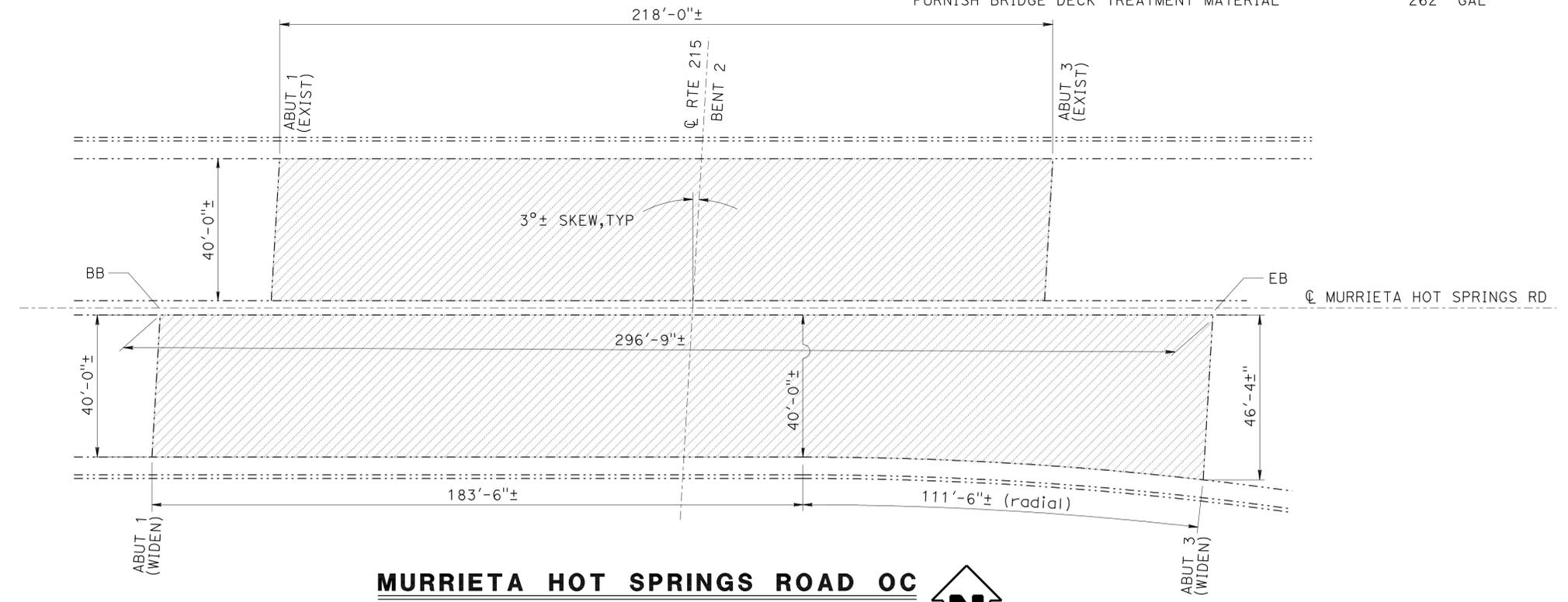
QUANTITIES

CLEAN BRIDGE DECK	20,544	SQFT
PUBLIC SAFETY PLAN	LUMP	SUM
TREAT BRIDGE DECK	20,544	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	257	GAL

MURRIETA HOT SPRINGS RD OC BRIDGE NO 56-0658

QUANTITIES

CLEAN BRIDGE DECK	20,955	SQFT
PUBLIC SAFETY PLAN	LUMP	SUM
TREAT BRIDGE DECK	20,955	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	262	GAL



**MURRIETA HOT SPRINGS ROAD OC**

Br No. 56-0658, Rte 215, PM R9.51  
1" = 20'



NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

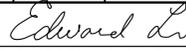
DESIGN	BY Edward Li	CHECKED HongTien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Edward Li	LAYOUT	BY Tom Dang
QUANTITIES	BY Edward Li	CHECKED HongTien Tran	SPECIFICATIONS	BY Erwin Rufino

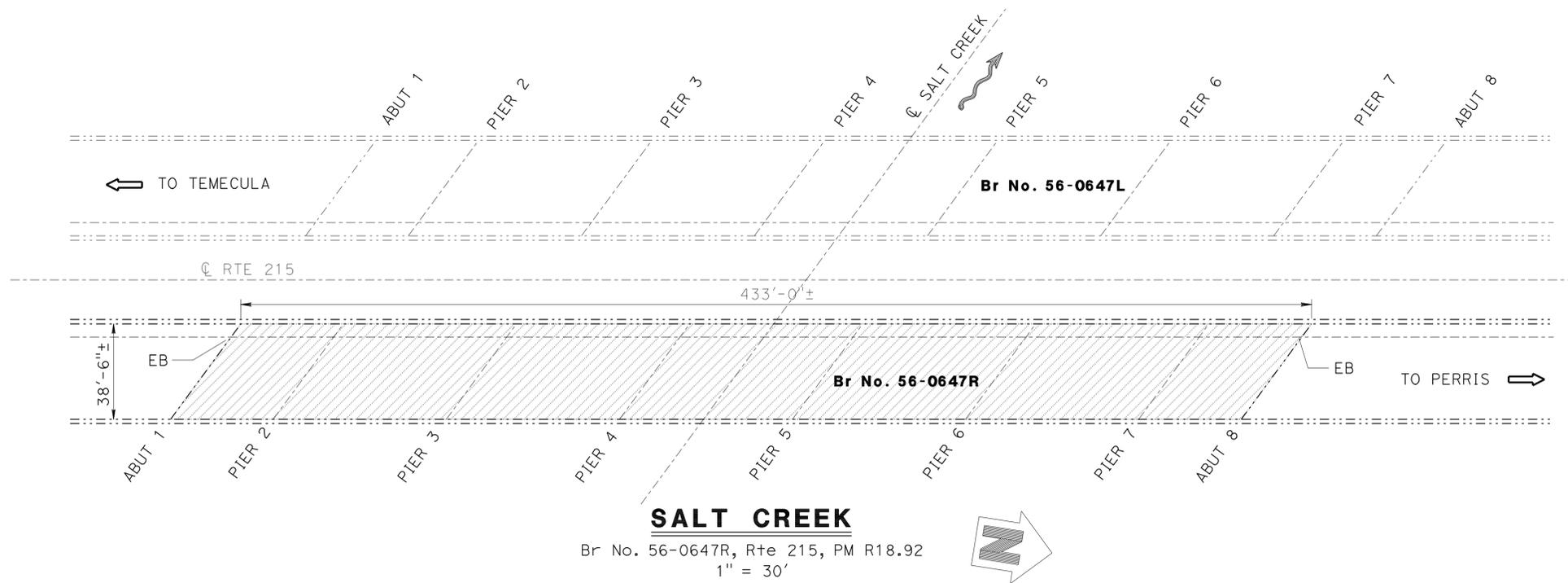
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various  
POST MILE Varies

ROUTE 215 BRIDGES  
GENERAL PLAN NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	RIV	215	R8.9/R31.0	16	20
			09/09/11		
REGISTERED CIVIL ENGINEER			DATE		
12-27-11			PLANS APPROVAL DATE		
					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



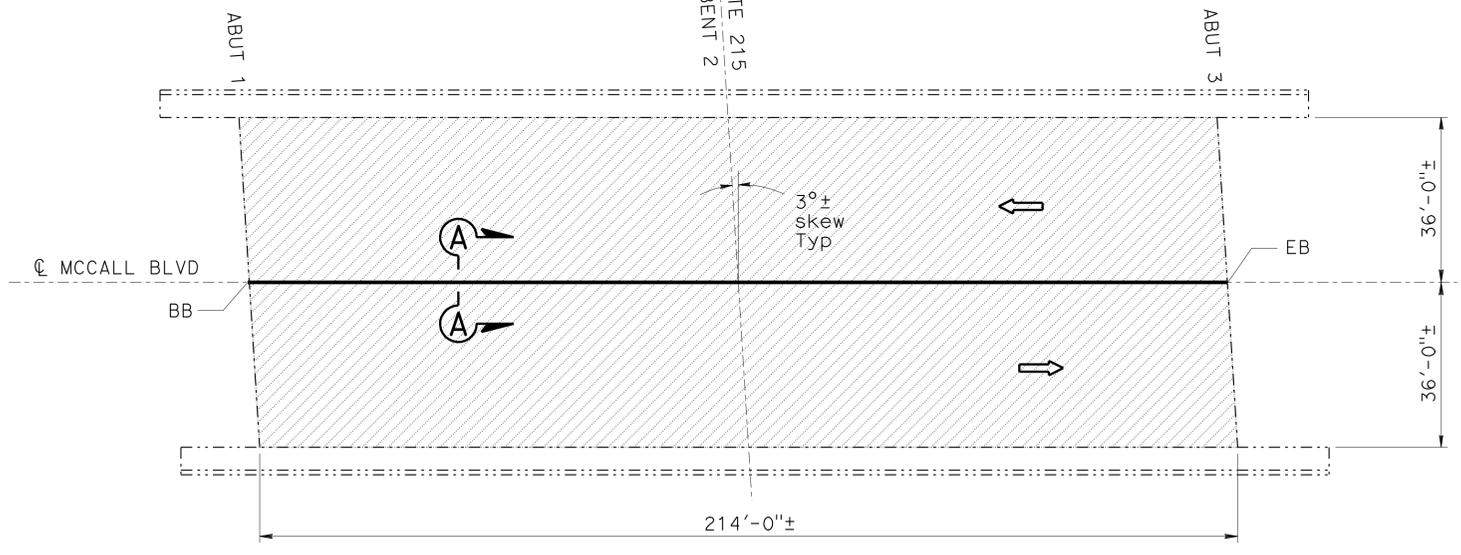
**SALT CREEK**  
 Br No. 56-0647R, Rte 215, PM R18.92  
 1" = 30'

SALT CREEK BRIDGE NO 56-0647R

QUANTITIES	
CLEAN BRIDGE DECK	16,671 SQFT
PUBLIC SAFETY PLAN	LUMP SUM
TREAT BRIDGE DECK	16,671 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	209 GAL

**LEGEND:**

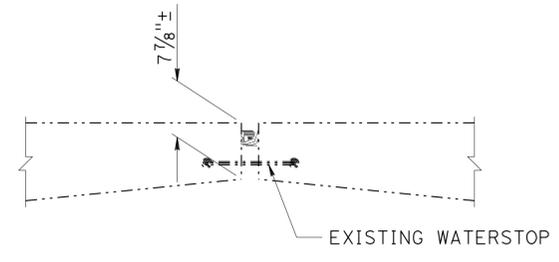
-  Indicates existing.
-  Indicates direction of traffic.
-  Indicates limits of clean and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete as directed by the Engineer.
-  Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint spalls as directed by the Engineer.



**MCCALL BLVD OC**  
 Br No. 56-0534, Rte 215, PM R20.84  
 1" = 20'

MCCALL BLVD OC BRIDGE NO 56-0534

QUANTITIES	
CLEAN BRIDGE DECK	15,430 SQFT
CLEAN EXPANSION JOINT	214 LF
REPAIR JOINT SPALLS	20 CF
PUBLIC SAFETY PLAN	LUMP SUM
JOINT SEAL (MR 1/2")	214 LF
TREAT BRIDGE DECK	15,430 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	193 GAL



**SECTION A-A**  
 NO SCALE

NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN	BY Edward Li	CHECKED HongTien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Edward Li	LAYOUT	BY Tom Dang
QUANTITIES	BY Edward Li	CHECKED HongTien Tran	SPECIFICATIONS	BY Erwin Rufino
				CHECKED Edward Li
				PLANS AND SPECS COMPARED Erwin Rufino

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE DESIGN

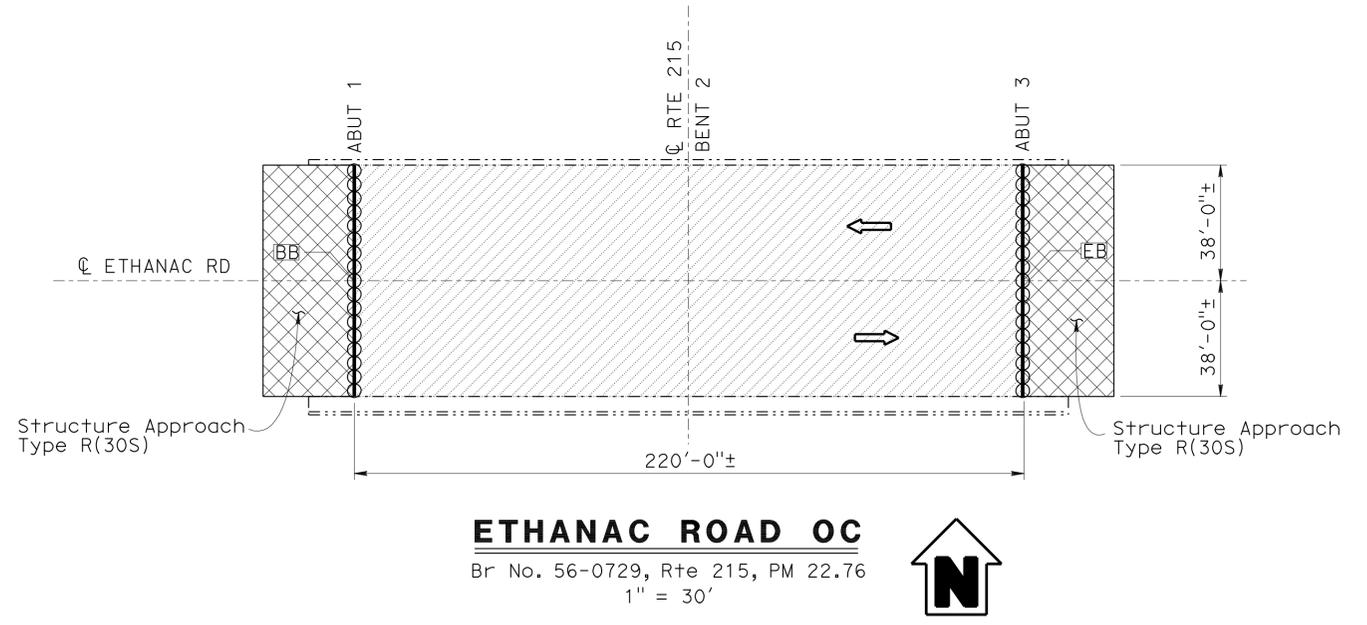
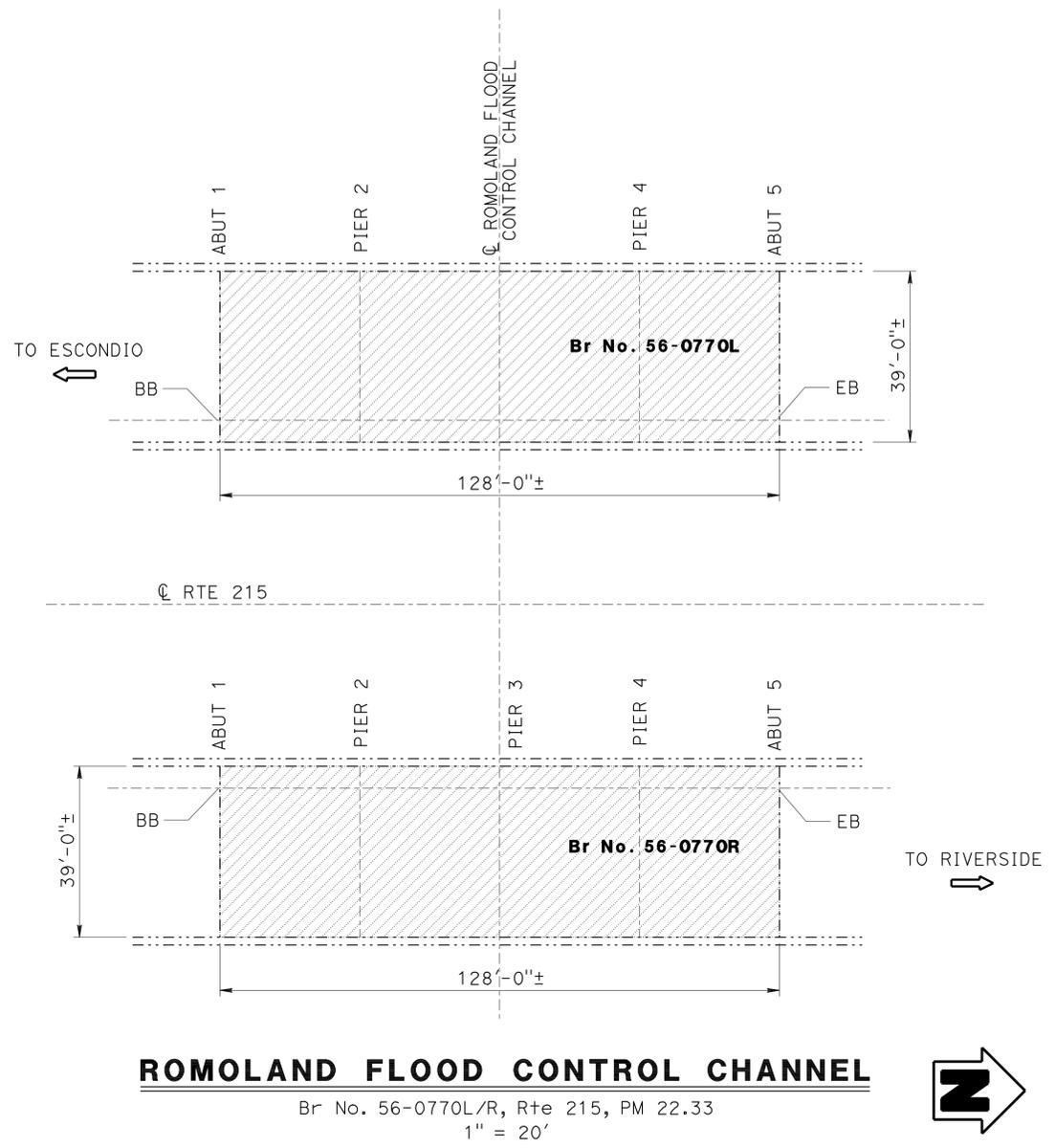
BRIDGE NO. Various  
 POST MILE Varies  
**ROUTE 215 BRIDGES**  
**GENERAL PLAN NO. 2**

USERNAME => s109858 DATE PLOTTED => 28-DEC-2011 TIME PLOTTED => 08:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	RIV	215	R8.9/R31.0	17	20
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			09/09/11 DATE		
12-27-11			PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

**LEGEND:**

- Indicates existing.
- ➔ Indicates direction of traffic.
- Indicates limits of clean and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete as directed by the Engineer.
- Indicates limits of remove AC roadway and construct new structure approach slabs.
- Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint spalls (where new approach slabs are replaced, no joint spall repair is required).



ROMOLAND FLOOD CONTROL CHNL      BRIDGE NO 56-0770L/R

QUANTITIES

CLEAN BRIDGE DECK	9,984	SQFT
PUBLIC SAFETY PLAN	LUMP	SUM
TREAT BRIDGE DECK	9,984	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	126	GAL

ETHANAC RD OC      BRIDGE NO. 56-0729

QUANTITIES

CLEAN BRIDGE DECK	16,720	SQFT
AGGREGATE BASE (APPROACH SLAB)	17	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	169	CY
PUBLIC SAFETY PLAN	LUMP	SUM
JOINT SEAL (MR 1 1/2 ")	152	LF
TREAT BRIDGE DECK	16,720	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	209	GAL

NOTE:  
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DESIGN	BY Edward Li	CHECKED HongTien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Edward Li	LAYOUT	BY Tom Dang
QUANTITIES	BY Edward Li	CHECKED HongTien Tran	SPECIFICATIONS	BY Erwin Rufino
				CHECKED Edward Li
				PLANS AND SPECS COMPARED Erwin Rufino

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

**DIVISION OF MAINTENANCE**  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various	<b>ROUTE 215 BRIDGES</b>
POST MILE	Varies	
<b>GENERAL PLAN NO. 3</b>		

USERNAME => S109858      DATE PLOTTED => 08-DEC-2011      TIME PLOTTED => 08:32

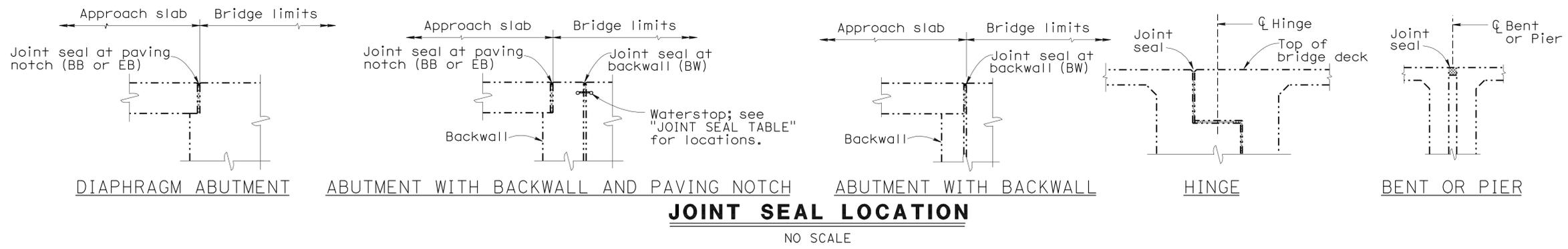
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	RIV	215	R8.9/R31.0	18	20

Edward Li 09/09/11  
REGISTERED CIVIL ENGINEER DATE

12-27-11  
PLANS APPROVAL DATE

No. C56706  
Exp. 06/30/13  
CIVIL

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**NOTES:**

The following notes apply to JOINT SEAL TYPE A:

Install Joint Seal (MR = 1/2") or Silicone Joint Seal 3" up into curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.

For details not shown see RSP B6-21 sheet.

The following notes apply to JOINT SEAL TYPE B:

1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.

2) Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be recalculated by the Engineer.

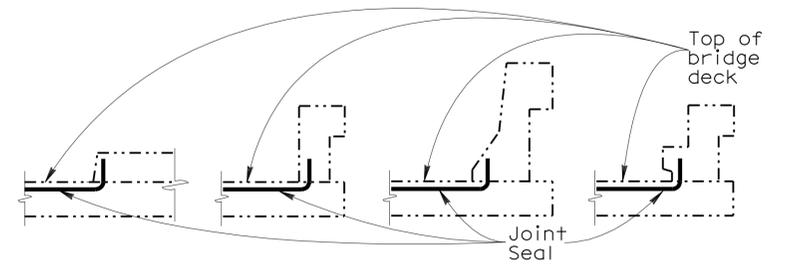
3) W1 shall be the smaller of the values determined as follows:  
A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.  
B) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3.0 PSI.

4) Bend Type B joint seal 6 inches up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.

For details not shown see RSP B6-21 sheet.

JOINT SEAL TABLE										
BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCHES)	APPROX LENGTH (FT)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)	APPROX DEPTH OF JOINT SPALLS (INCHES)	APPROX WIDTH OF JOINT SPALLS (INCHES)	APPROX LENGTH OF JOINT SPALLS (FEET)
MCCALL BLVD OC	56-0534	-	AL	1/2	214	YES	4	3	6	5
ETHANAC ROAD OC	56-0729	ABUT 1	BW	1 1/2	76	NO	12	3	6	5
		ABUT 3	BW	1 1/2	76	NO	12	3	6	5

BW = Backwall  
AL = Longitudinal Deck Joint



BARRIER RAIL

**JOINT SEAL AT LOW SIDE OF DECK**

Note: Details shown for illustration purposes only.

For use only where deck joint matches the sidewalk, curb or barrier rail joint.

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DESIGN	BY Edward Li	CHECKED HongTien Tran
DETAILS	BY Tom Dang	CHECKED Edward Li
QUANTITIES	BY Edward Li	CHECKED HongTien Tran

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various
POST MILE	Varies

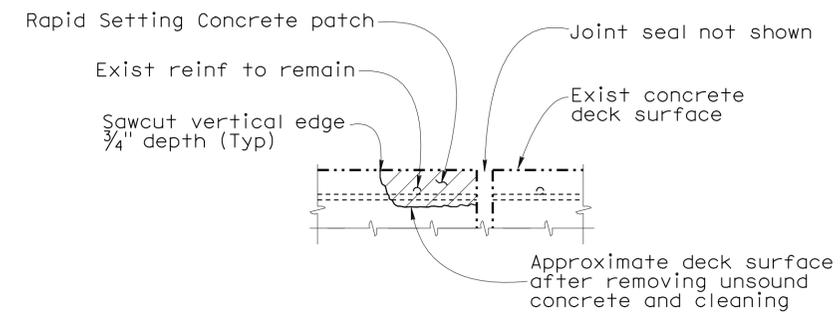
ROUTE 215 BRIDGES  
**MISCELLANEOUS DETAILS NO. 1**

TIME PLOTTED => 08:32  
DATE PLOTTED => 28-DEC-2011  
USER NAME => s109858

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	RIV	215	R8.9/R31.0	19	20
Edward Li REGISTERED CIVIL ENGINEER			09/09/11 DATE		
12-27-11 PLANS APPROVAL DATE					
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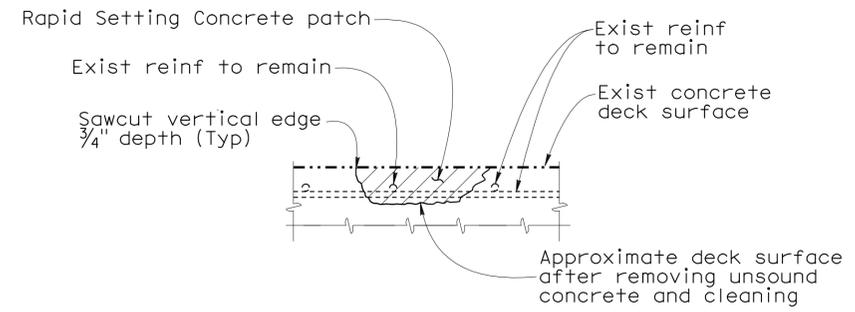
**DECK REPAIR NOTES:**

- Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
- It is responsibility of the Contractor to repair any reinforcement that is accidentally cut by saw cutting operations.
- When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
- The saw cut depth shall not exceed  $\frac{3}{4}$  inch or the concrete cover over the top steel reinforcing bars, whichever is less.
- Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.



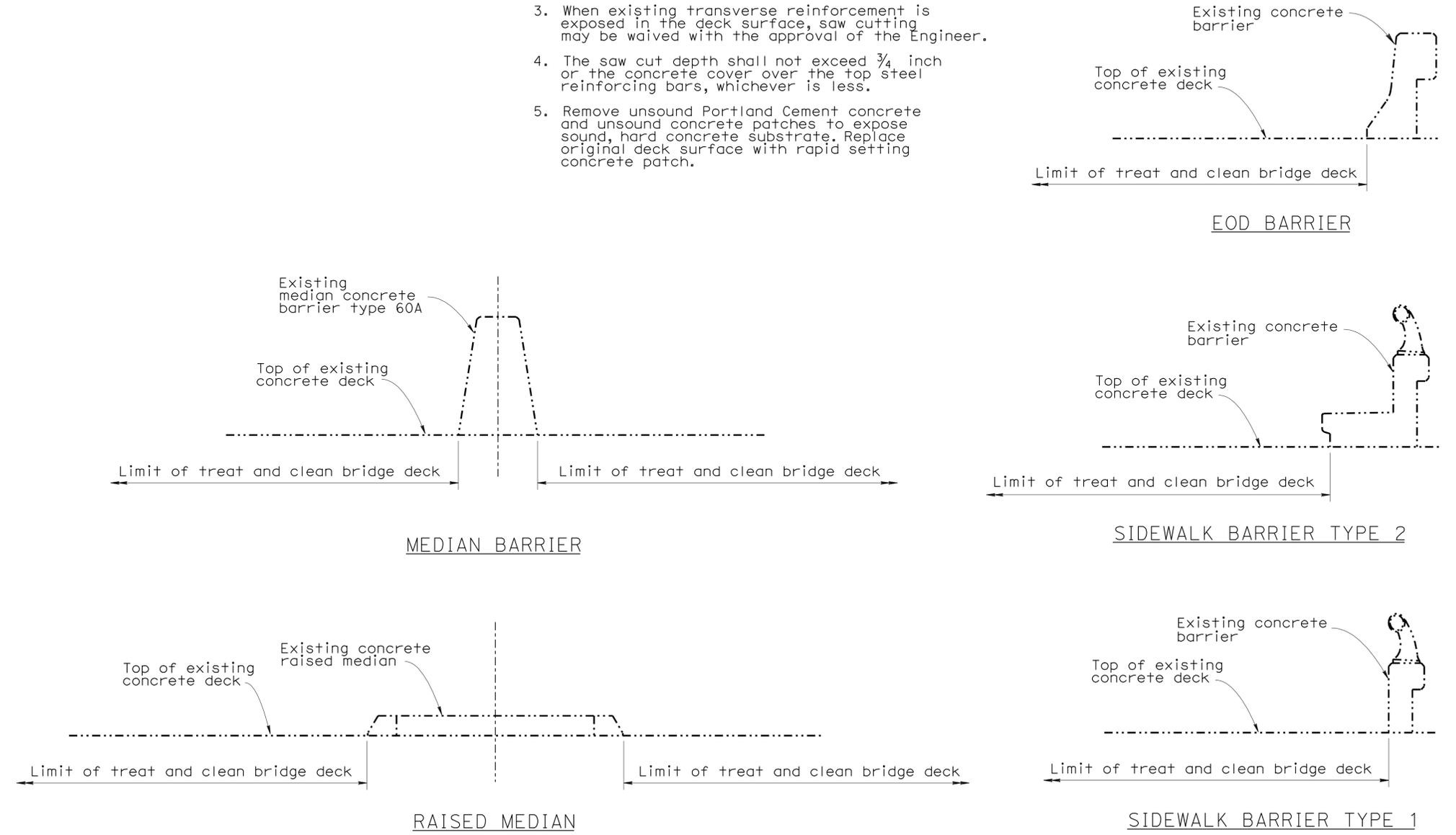
**JOINT SPALL REPAIR DETAIL**

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.



**DECK DAMAGE REPAIR DETAIL**

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.



**TYPICAL LIMITS OF DECK WORK**

NO SCALE

NOTE:  
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STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Edward Li	CHECKED HongTien Tran	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	<b>ROUTE 215 BRIDGES</b> <b>MISCELLANEOUS DETAILS NO. 2</b>
	DETAILS	BY Tom Dang	CHECKED Edward Li			Various	
	QUANTITIES	BY Edward Li	CHECKED HongTien Tran			Varies	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: X PROJECT NUMBER & PHASE: 0800020022		CONTRACT NO.: 0P7101	
				0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				FILE => 08-0p7101-b-miscdfls02.dgn		REVISION DATES SHEET OF 05 06	

USERNAME => s109868 DATE PLOTTED => 28-DEC-2011 TIME PLOTTED => 08:32

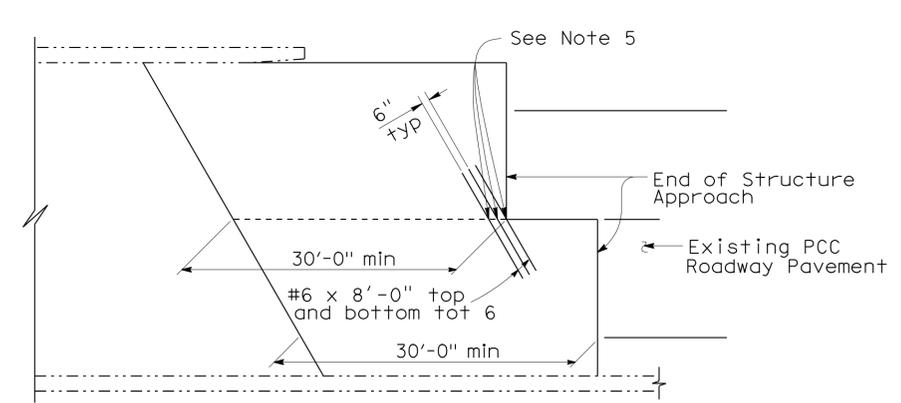
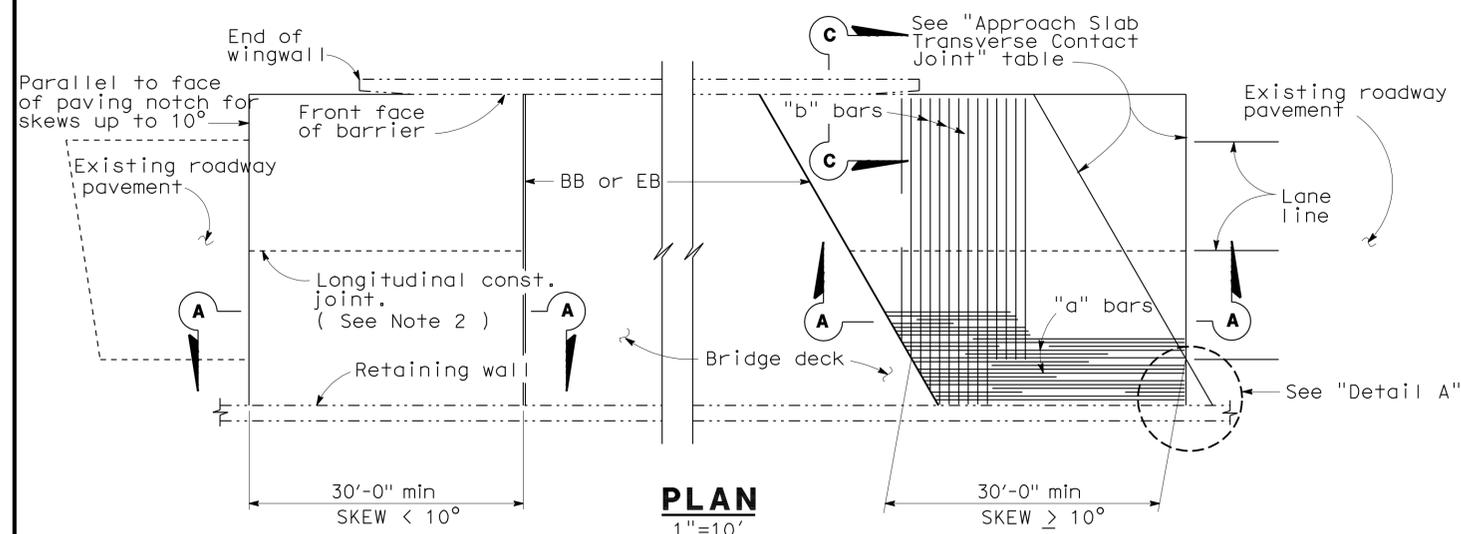
DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	RIV	215	R8.9/R31.0	20	20

Edward L. 09/09/11  
REGISTERED ENGINEER - CIVIL

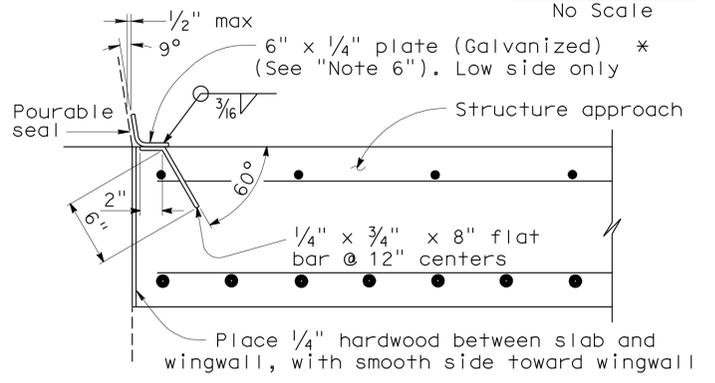
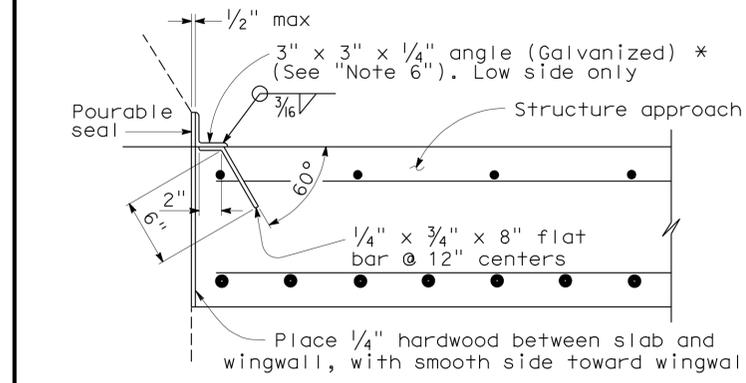
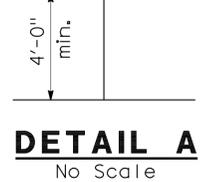
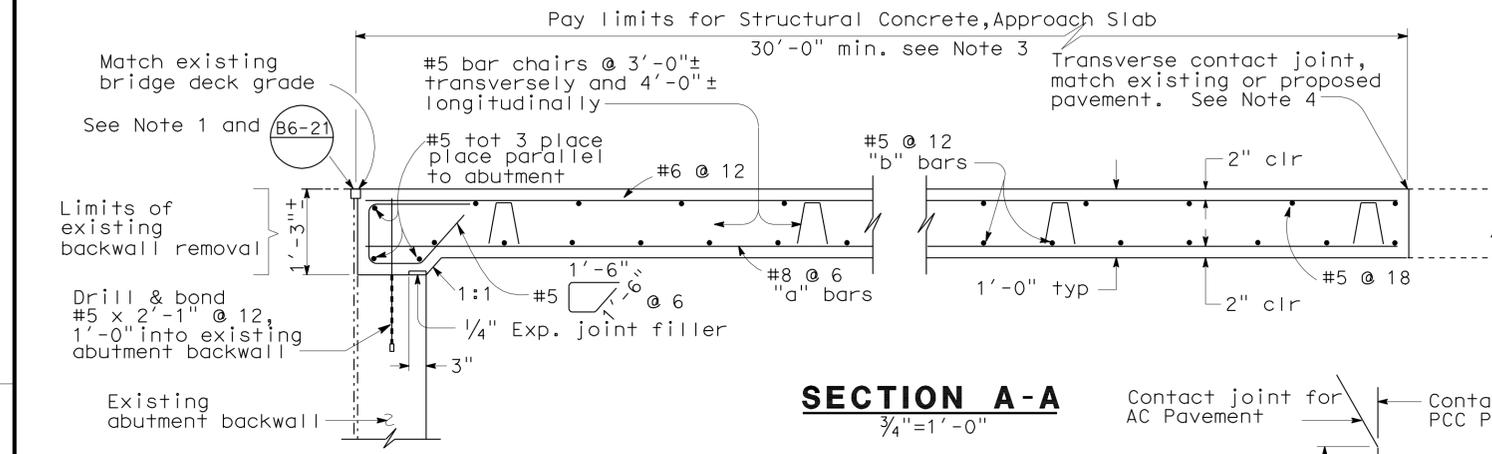
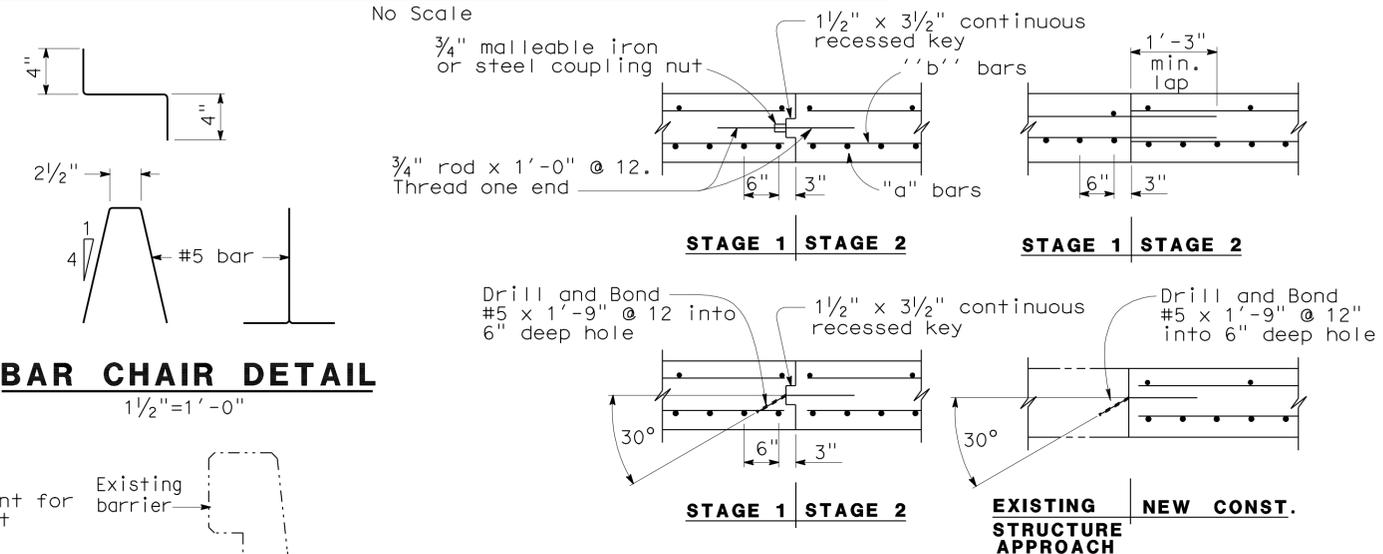
12-27-11  
PLANS APPROVAL DATE

No. C56706  
Exp. 06/30/13  
CIVIL  
STATE OF CALIFORNIA

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**STRUCTURE APPROACH - END STAGGER DETAIL**



APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	Parallel to face of paving notch	Parallel to face of paving notch
10° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line

- NOTES:**
- Sealed joint, for M.R. see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
  - Longitudinal construction joints, when permitted by Engineer, shall be located on lane lines.
  - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.
  - For transverse contact joint with new PCC paving, refer to Standard Plan P10.
  - Couplers are required for stage construction.
  - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.
- NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

**\*(TO BE USED WITH TYPE 25 OR TYPE 27 CONCRETE BARRIER)**

**\*(TO BE USED WITH TYPE 732 OR TYPE 736 CONCRETE BARRIER)**

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

STANDARD DRAWING			
RELEASE DATE 3/14/05	DESIGN BY M. TRAFFALIS	CHECKED E. THORKILDSEN	RELEASED BY
FILE NO. xs3-130e	DETAILS BY R. YEE	CHECKED E. THORKILDSEN	
	SUBMITTED BY M. HA	DRAWING DATE 8/92	OFFICE CHIEF

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		BRIDGE NO. Various	
DIVISION OF ENGINEERING SERVICES		MILE POST Varies	

ROUTE 215 BRIDGES	
STRUCTURE APPROACH TYPE R(30S)	