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STRUCTURE PLANS

18-28	STRUCTURE PLANS
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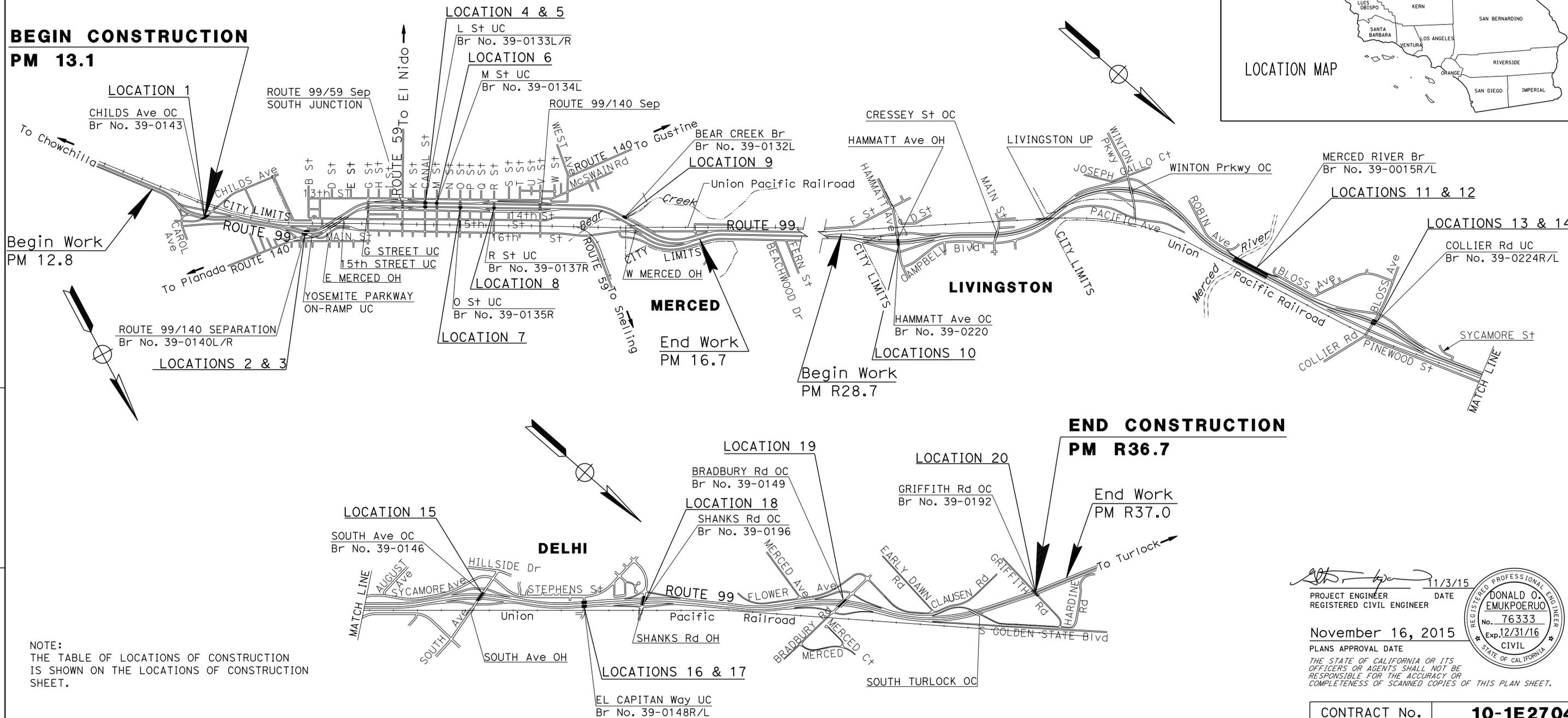
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN MERCED COUNTY
AT VARIOUS LOCATIONS
FROM CHILDS AVENUE OVERCROSSING
TO GRIFFITH ROAD OVERCROSSING**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	1	28

LOCATION MAP



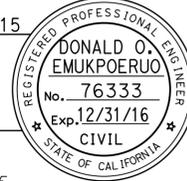
PROJECT MANAGER
ALVIN MANGINDIN

DESIGN MANAGER
ALVIN MANGINDIN

NOTE:
THE TABLE OF LOCATIONS OF CONSTRUCTION IS SHOWN ON THE LOCATIONS OF CONSTRUCTION SHEET.

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

PROJECT ENGINEER DATE 11/3/15
 REGISTERED CIVIL ENGINEER
 November 16, 2015
 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.



CONTRACT No.	10-1E2704
PROJECT ID	1015000066

DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 1:34:49

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
 ALVIN MANGINDIN

CALCULATED-DESIGNED BY
 CHECKED BY

JHOANNA OAMILDA
 DONALD EMUKPOERUO

REVISED BY
 DATE REVISED

JO
 06/11/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	2	28

11/3/15
 REGISTERED CIVIL ENGINEER DATE

11-16-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 DONALD O. EMUKPOERUO
 No. 76333
 Exp. 12/31/16
 CIVIL
 STATE OF CALIFORNIA

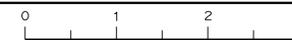
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LOCATIONS OF CONSTRUCTION

Loc	COUNTY	ROUTE	POST MILE	STRUCTURE NAME	BRIDGE No.
1	Mer	99	13.09	CHILDS AVENUE OVERCROSSING	39-0143
2	Mer	99	13.86	ROUTE 99/140 SEPARATION	39-0140R
3	Mer	99	13.86	ROUTE 99/140 SEPARATION	39-0140L
4	Mer	99	14.87	L STREET UNDERCROSSING	39-0133R
5	Mer	99	14.87	L STREET UNDERCROSSING	39-0133L
6	Mer	99	14.96	M STREET UNDERCROSSING	39-0134L
7	Mer	99	15.15	O STREET UNDERCROSSING	39-0135R
8	Mer	99	15.42	R STREET UNDERCROSSING	39-0137R
9	Mer	99	16.38	BEAR CREEK	39-0132L
10	Mer	99	R29.00	HAMMATT AVENUE OVERCROSSING	39-0220
11	Mer	99	R31.00	MERCED RIVER	39-0015R
12	Mer	99	R31.00	MERCED RIVER	39-0015L
13	Mer	99	R31.93	COLLIER ROAD UNDERCROSSING	39-0224R
14	Mer	99	R31.93	COLLIER ROAD UNDERCROSSING	39-0224L
15	Mer	99	M33.53	SOUTH AVENUE OVERCROSSING	39-0146
16	Mer	99	R34.05	EL CAPITAN WAY UNDERCROSSING	39-0148R
17	Mer	99	R34.05	EL CAPITAN WAY UNDERCROSSING	39-0148L
18	Mer	99	R34.43	SHANKS ROAD OVERCROSSING	39-0196
19	Mer	99	R35.56	BRADBURY ROAD OVERCROSSING	39-0149
20	Mer	99	R36.70	GRIFFITH ROAD OVERCROSSING	39-0192

LOCATIONS OF CONSTRUCTION

LC-1



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	3	28

11/3/15
 REGISTERED CIVIL ENGINEER DATE

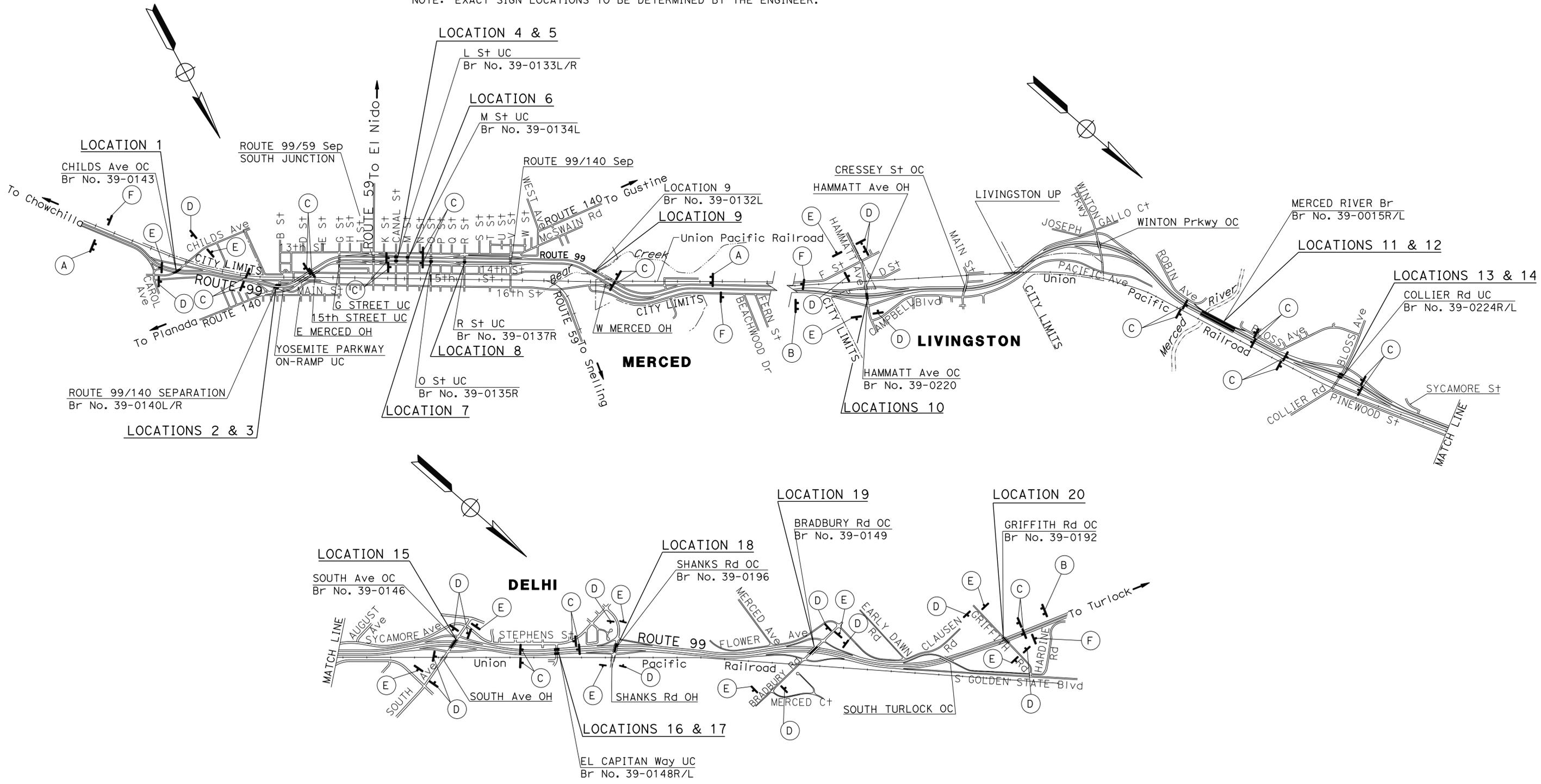
REGISTERED PROFESSIONAL ENGINEER
DONALD O. EMUKPOERUO
 No. 76333
 Exp. 12/31/16
 CIVIL
 STATE OF CALIFORNIA

11-16-15
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SIGN	SIGN CODE FEDERAL	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	SIGN MESSAGE
A	G20-1	90" x 48"	2 - 6" x 6"	2	ROAD CONSTRUCTION NEXT 3 MILES
B	G20-1	90" x 48"	2 - 6" x 6"	2	ROAD CONSTRUCTION NEXT 8 MILES
C	W20-1	48" x 48"	1 - 4" x 6"	22	ROAD WORK AHEAD
D	W20-1	36" x 36"	1 - 4" x 6"	17	ROAD WORK AHEAD
E	G20-2	36" x 18"	1 - 4" x 4"	12	END ROAD WORK
F	G20-2	48" x 24"	1 - 4" x 6"	4	END ROAD WORK

NOTE: EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
 CALCULATED/DESIGNED BY: JHOANNA OAMILDA
 CHECKED BY: DONALD EMUKPOERUO
 REVISED BY: JO
 DATE REVISED: 06/04/15
 USERNAME => s120300
 DGN FILE => a1e2701a001.dgn

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

LAST REVISION DATE PLOTTED => 18-NOV-2015
 11-03-15 TIME PLOTTED => 13:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	4	28

11/3/15
REGISTERED CIVIL ENGINEER DATE

11-16-15
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REGISTERED PROFESSIONAL ENGINEER
DONALD O. EMUKPOERUO
No. 76333
Exp. 12/31/16
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STATE OF CALIFORNIA

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PAVEMENT DELINEATION ITEMS

Loc No.	LOCATION	PM	Dir	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	REMOVE THERMOPLASTIC TRAFFIC STRIPE	4" THERMOPLASTIC TRAFFIC STRIPE				4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 18-12)	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7)	8" THERMOPLASTIC TRAFFIC STRIPE	REMOVE PAVEMENT MARKER	PAVEMENT MARKER (RETROREFLECTIVE)					REMOVE PAVEMENT MARKING	THERMOPLASTIC PAVEMENT MARKING			
						YELLOW		WHITE	WHITE	WHITE	WHITE	TYPE D		TYPE G		TYPE H	LIMIT LINE	STOP		TYPE III (L) ARROW			
						DETAIL 21	DETAIL 22	DETAIL 25	DETAIL 29	DETAIL 27B	DETAIL 12			DETAIL 8	DETAIL 38	DETAIL 22					DETAIL 29	DETAIL 12	DETAIL 38
						LF	LF	LF				LF		LF	LF	EA	EA						
1	CHILDS AVENUE OC	13.09	EB/WB	1212		606			606									34	12	22			
2 & 3	ROUTE 99/140 SEPARATION	13.86	NB/SB					150	210	210		9			5		4						
4 & 5	L STREET UC	14.87	NB/SB					108	168	168	63	9			5		4						
6	M STREET UC	14.96	SB					66	66	66		4			2		2						
7	O STREET UC	15.15	NB					54	84	84		4			2		2						
8	R STREET UC	15.42	NB																				
9	BEAR CREEK	16.38	SB																				
10	HAMMAT AVENUE OC	R29.00	EB/WB	920	70	460			460		35	24	22		2		42				42		
11 & 12	MERCED RIVER	R31.00	NB/SB					811	811	811		36			18		18						
13 & 14	COLLIER ROAD UC	R31.93	NB/SB					317	317	317		16			8		8						
15	SOUTH AVENUE OC	M33.53	EB/WB																				
16 & 17	EL CAPITAN WAY UC	R34.05	NB/SB					249	249	249		12			6		6						
18	SHANKS ROAD OC	R34.43	EB/WB	1004	192	502			502		96	27	22		5		42						
19	BRADSBURY ROAD OC	R35.56	EB/WB	1172	238	238	348	590			119	33	12	16	5		42				42		
20	GRIFFITH ROAD OC	R36.70	EB/WB	864		432		432				20	20										
SUBTOTAL				5172	500	606	1632	1755	348	4495	1905	63	250	194	76	16	46	12	44	118	12	22	84
TOTAL				5172	500	8836				1905	63	250	194	194					118	118			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE

FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
CALCULATED/DESIGNED BY: JHOANNA OAMILDA
CHECKED BY: DONALD EMUKPOERUO
REVISED BY: JO
DATE REVISED: 06/11/15

PAVEMENT DELINEATION QUATITIES PDQ-1

LAST REVISION DATE PLOTTED => 18-NOV-2015
11-03-15 TIME PLOTTED => 13:49

TRAFFIC MANAGEMENT SYSTEM ELEMENTS (EXISTING)

PM	DIR	LOCATION	TYPE	DESCRIPTION	PM	DIR	LOCATION	TYPE	DESCRIPTION
12.90	SB	SOUTH OF ON-RAMP FROM CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R31.60	NB	SOUTH OF OFF-RAMP TO COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM
12.90	SB	ON-RAMP FROM CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R31.60	NB	OFF-RAMP TO COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM
12.96	NB	OFF-RAMP TO CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R32.24	SB	NORTH OF OFF-RAMP TO COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM
12.96	NB	SOUTH OF OFF-RAMP TO CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R32.24	SB	OFF-RAMP TO COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM
13.07	NB	NORTH OF ON-RAMP FROM CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R32.32	NB	NORTH OF ON-RAMP FROM COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM
13.07	NB	ON-RAMP FROM CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R32.32	NB	ON-RAMP FROM COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM
13.31	SB	NORTH OF OFF-RAMP TO CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	M33.10		SOUTH AVENUE AND COLLIER ROAD	WIM	WEIGH IN MOTION
13.31	SB	OFF-RAMP TO CHILDS AVENUE	TMS	TRAFFIC MONITORING SYSTEM	M33.19	SB	SOUTH OF ON-RAMP FROM SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
13.65	SB	SOUTH OF ON-RAMP FROM EB ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	M33.19	SB	ON-RAMP FROM SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
13.65	SB	ON-RAMP FROM EB ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	M33.22	NB	SOUTH OF OFF-RAMP TO SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
13.77	NB	SOUTH OF OFF-RAMP TO ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	M33.22	NB	OFF-RAMP TO SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
13.77	NB	OFF-RAMP TO ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	M33.80	SB	NORTH OF OFF-RAMP TO SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
14.03	SB	NORTH OF OFF-RAMP TO EB ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	M33.80	SB	OFF-RAMP TO SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
14.03	SB	OFF-RAMP TO EB ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	M33.85	NB	NORTH OF ON-RAMP FROM SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
14.06	NB	NORTH OF ON-RAMP FROM ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	M33.85	NB	ON-RAMP FROM SOUTH AVENUE	TMS	TRAFFIC MONITORING SYSTEM
14.06	NB	ON-RAMP FROM ROUTE 140	TMS	TRAFFIC MONITORING SYSTEM	R34.14	SB	SOUTH OF ON-RAMP FROM SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
15.24	NB	SOUTH OF OFF-RAMP TO R STREET	TMS	TRAFFIC MONITORING SYSTEM	R34.14	SB	ON-RAMP FROM SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
15.24	NB	OFF-RAMP TO R STREET	TMS	TRAFFIC MONITORING SYSTEM	R34.23	NB	SOUTH OF OFF-RAMP TO SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
15.44		13TH STREET & R STREET	SIGNAL	TRAFFIC SIGNAL	R34.23	NB	OFF-RAMP TO SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
15.45		14TH STREET & R STREET	SIGNAL	TRAFFIC SIGNAL	R34.69	SB	NORTH OF OFF-RAMP TO SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
15.93	SB	SOUTH OF ON-RAMP FROM R STREET	TMS	TRAFFIC MONITORING SYSTEM	R34.69	SB	OFF-RAMP TO SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
15.93	SB	ON-RAMP FROM R STREET	TMS	TRAFFIC MONITORING SYSTEM	R34.79	NB	NORTH OF ON-RAMP FROM SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
R28.40	SB	SOUTH OF HAMMATT AVENUE	CMS	CHANGEABLE MESSAGE SIGN	R34.79	NB	ON-RAMP FROM SHANKS ROAD	TMS	TRAFFIC MONITORING SYSTEM
R28.66	SB	SOUTH OF ON-RAMP FROM HAMMATT AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R34.80	NB	SHANKS ROAD OC	TMS	TRAFFIC MONITORING SYSTEM
R28.81	NB	SOUTH OF OFF-RAMP TO HAMMATT AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R34.80	SB	SHANKS ROAD OC	TMS	TRAFFIC MONITORING SYSTEM
R28.81	NB	OFF-RAMP TO HAMMATT AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R35.30	SB	SOUTH OF ON-RAMP FROM BRADBURY ROAD	TMS	TRAFFIC MONITORING SYSTEM
R29.25	SB	NORTH OF OFF-RAMP TO HAMMATT AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R35.30	NB	SOUTH OF ON-RAMP FROM BRADBURY ROAD	TMS	TRAFFIC MONITORING SYSTEM
R29.25	SB	OFF-RAMP TO HAMMATT AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R35.78	SB	SOUTH OF OFF-RAMP TO BRADBURY ROAD	TMS	TRAFFIC MONITORING SYSTEM
R29.35	NB	NORTH OF ON-RAMP FROM HAMMATT AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R35.78	NB	SOUTH OF OFF-RAMP TO BRADBURY ROAD	TMS	TRAFFIC MONITORING SYSTEM
R29.35	NB	ON-RAMP FROM HAMMATT AVENUE	TMS	TRAFFIC MONITORING SYSTEM	R36.16	SB	GRIFFITH ROAD OC	CCTV	CLOSED CIRCUIT TELEVISION CAMERA
R31.30	NB	MERCED RIVER	TMS	TRAFFIC MONITORING SYSTEM	R36.16		GRIFFITH ROAD OC	RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
R31.30	SB	MERCED RIVER	TMS	TRAFFIC MONITORING SYSTEM	R36.73		GRIFFITH ROAD OC	CCTV	CLOSED CIRCUIT TELEVISION CAMERA
R31.58	SB	SOUTH OF ON-RAMP FROM COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM	R36.73	SB	SOUTH OF GRIFFITH ROAD OC	CMS	CHANGEABLE MESSAGE SIGN
R31.58	SB	ON-RAMP FROM COLLIER ROAD	TMS	TRAFFIC MONITORING SYSTEM	R37.22	NB	NORTH OF GRIFFITH ROAD OC	TMS	TRAFFIC MONITORING SYSTEM

NOTE: TRAFFIC MANAGEMENT SYSTEM ELEMENTS LOCATIONS ARE APPROXIMATE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	5	28

11/3/15
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11-16-15
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REGISTERED PROFESSIONAL ENGINEER
 DONALD O. EMUKPOERUO
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SUMMARY OF QUANTITIES Q-1

LAST REVISION DATE PLOTTED => 18-NOV-2015 11-03-15 TIME PLOTTED => 13:49

	M	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	N	
N	NORTH	
NB	NORTHBOUND	
No.	NUMBER (MUST HAVE PERIOD)	
Nos.	NUMBERS (MUST HAVE PERIOD)	
NPS	NOMINAL PIPE SIZE	
NS	NEAR SIDE	
NSP	NEW STANDARD PLAN	
NTS	NOT TO SCALE	
	O	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	P	
p	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

	P continued	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
PL, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	Q	
Qty	QUANTITY	
	R	
R	RADIUS	
R & D	REMOVE AND DISPOSE	
R & S	REMOVE AND SALVAGE	
R/C	RATE OF CHANGE	
RCA	REINFORCED CONCRETE ARCH	
RCB	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RCPA	REINFORCED CONCRETE PIPE ARCH	
Rd	ROAD	
Reinf	REINFORCED, REINFORCEMENT, REINFORCING	
Rel	RELOCATE	
Repl	REPLACEMENT	
Ret	RETAINING	
Rev	REVISED, REVISION	
Rdwy	ROADWAY	
RHMA	RUBBERIZED HOT MIX ASPHALT	
Riv	RIVER	
RM	ROAD-MIXED	
RP	RADIUS POINT, REFERENCE POINT	
RR	RAILROAD	
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN	
Rt	RIGHT	
Rte	ROUTE	
RW	REDWOOD, RETAINING WALL	
R/W	RIGHT OF WAY	
Rwy	RAILWAY	

	S	
S	SOUTH, SUPPLEMENT	
SAE	STRUCTURE APPROACH EMBANKMENT	
Salv	SALVAGE	
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	
SB	SOUTHBOUND	
SC	SAND CUSHION	
SCSP	SLOTTED CORRUGATED STEEL PIPE	
SD	STORM DRAIN	
Sec	SECOND, SECTION	
Sep	SEPARATION	
SG	SUBGRADE	
Shld	SHOULDER	
Sht	SHEET	
Sim	SIMILAR	
SL	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	T	
T	SEMI-TANGENT	
Tan	TANGENT	
TBB	THRIE BEAM BARRIER	
Tbr	TIMBER	
TC	TOP OF CURB	
TCB	TRAFFIC CONTROL BOX	
TCE	TEMPORARY CONSTRUCTION EASEMENT	
TeI	TELEPHONE	
Temp	TEMPORARY	
TG	TOP OF GRADE	
Tot	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	
	U	
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	V	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
	W	
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWL	WINGWALL LAYOUT LINE	
	X	
X Sec	CROSS SECTION	
Xing	CROSSING	
	Y	
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	6	28

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Grace M. Tsushima
 No. C49814
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 11-16-15

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A	
SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B	
SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
Ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kip	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

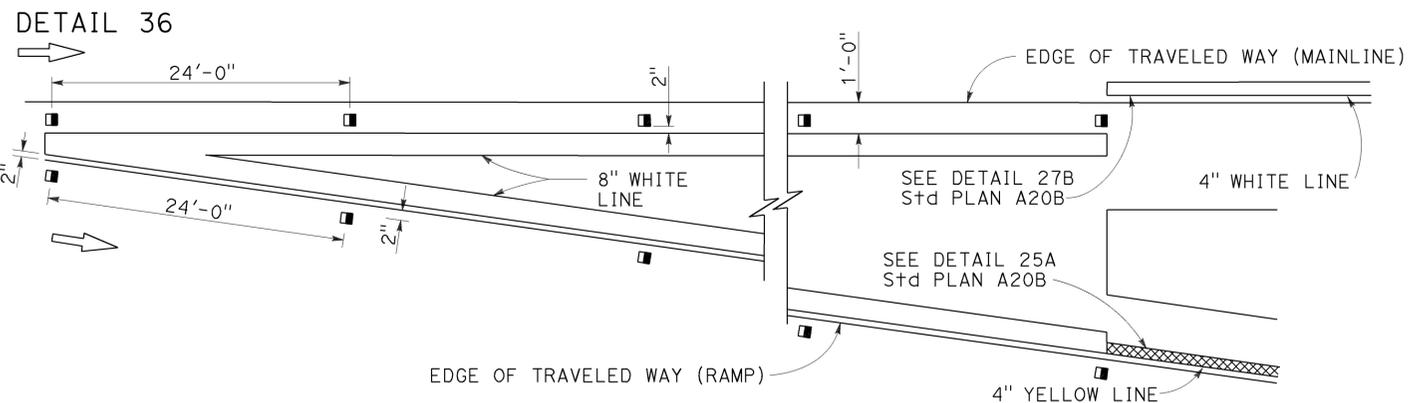
**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

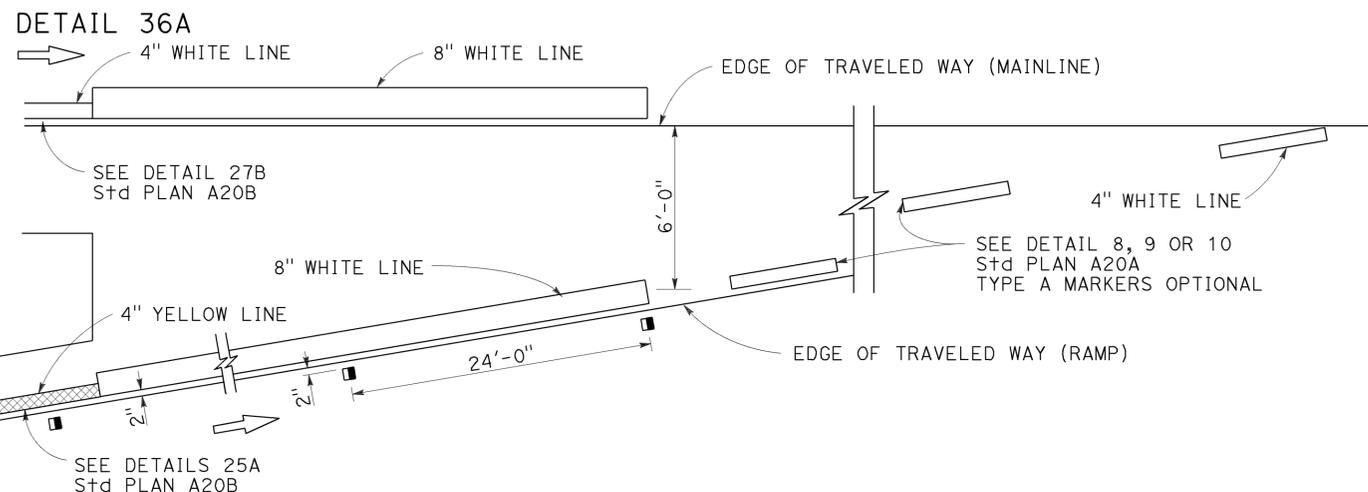
RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A10B

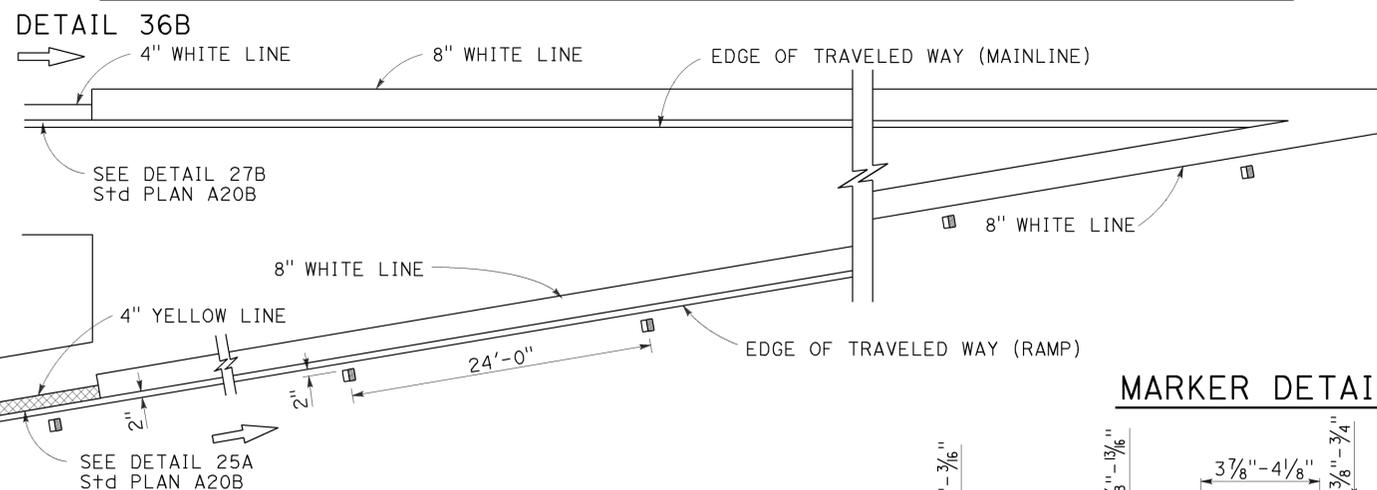
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

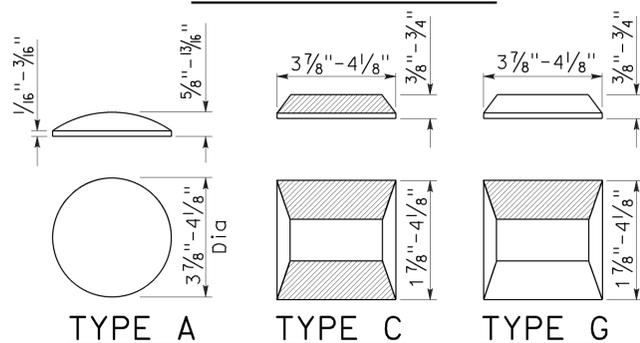


MARKER DETAILS

LEGEND:

MARKERS

- TYPE A WHITE NON-REFLECTIVE
- ◻ TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE



RETROREFLECTIVE FACE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	7	28

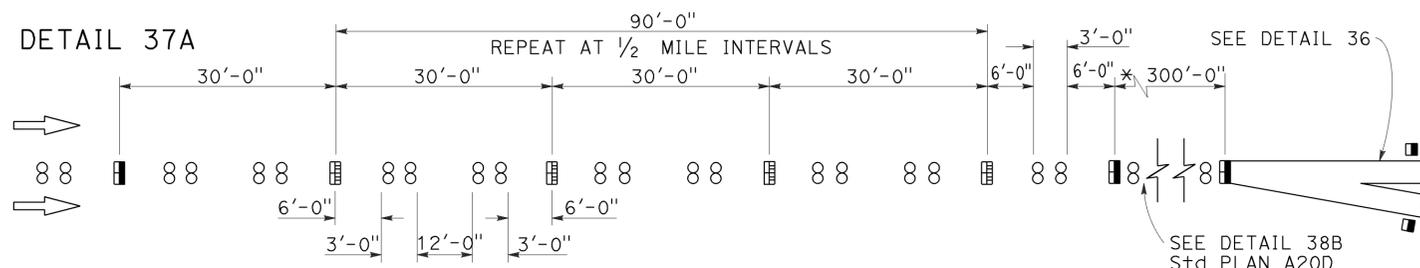
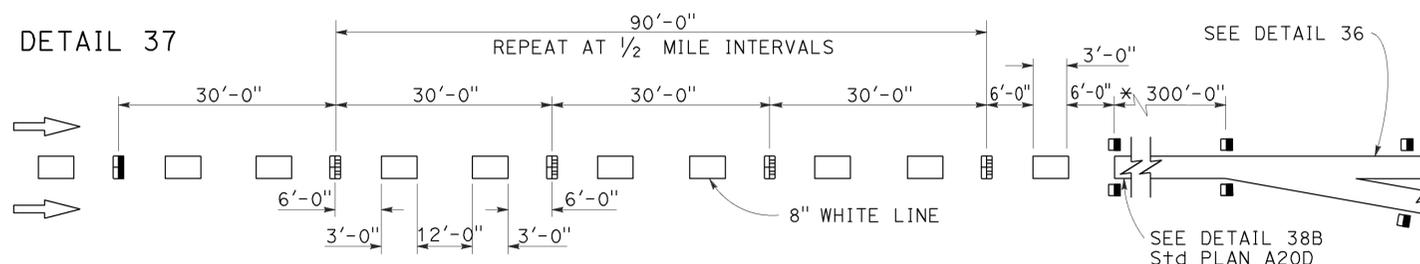
Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 No. C40375
 Exp. 3-31-15
 CIVIL
 STATE OF CALIFORNIA

July 19, 2013
 PLANS APPROVAL DATE

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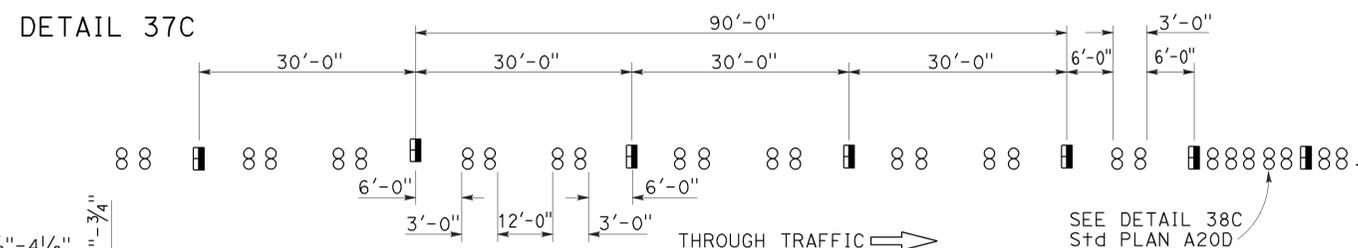
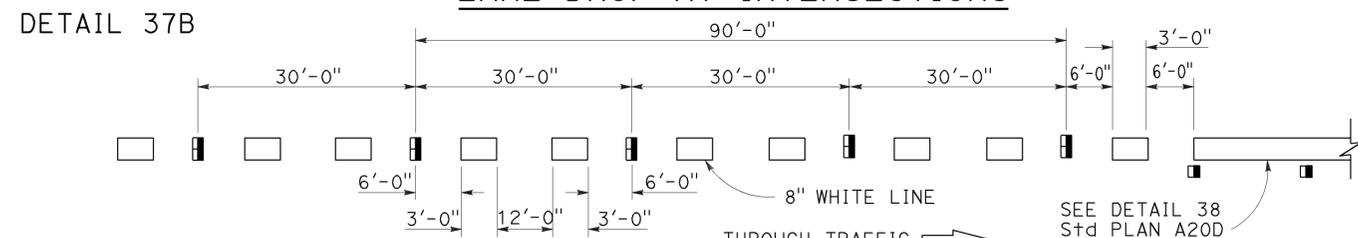
TO ACCOMPANY PLANS DATED 11-16-15

LANE DROP AT EXIT RAMP



* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A20C

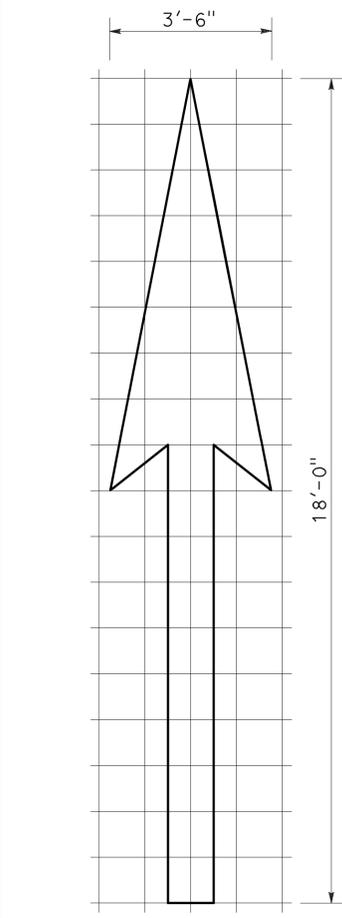
2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	8	28

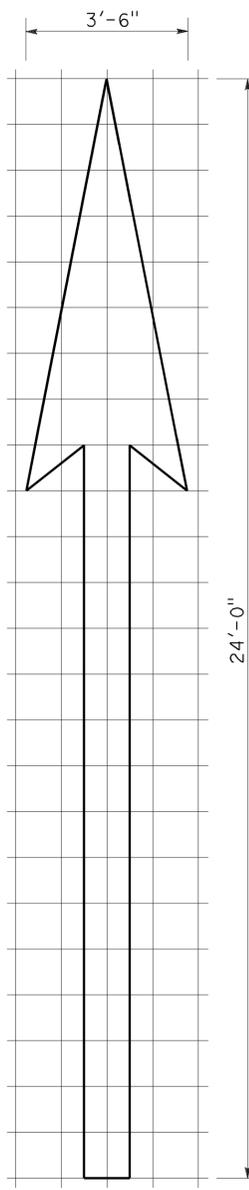
Roberto L. McLaughlin
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Roberto L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

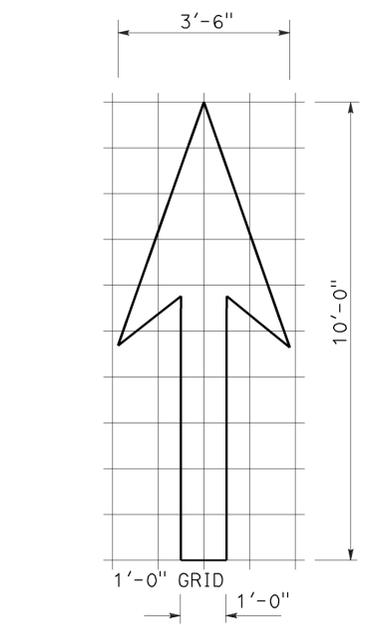
TO ACCOMPANY PLANS DATED 11-16-15



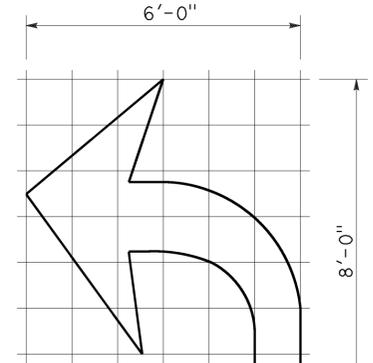
1'-0" GRID 1'-0"
A=25 ft²
TYPE I 18'-0" ARROW



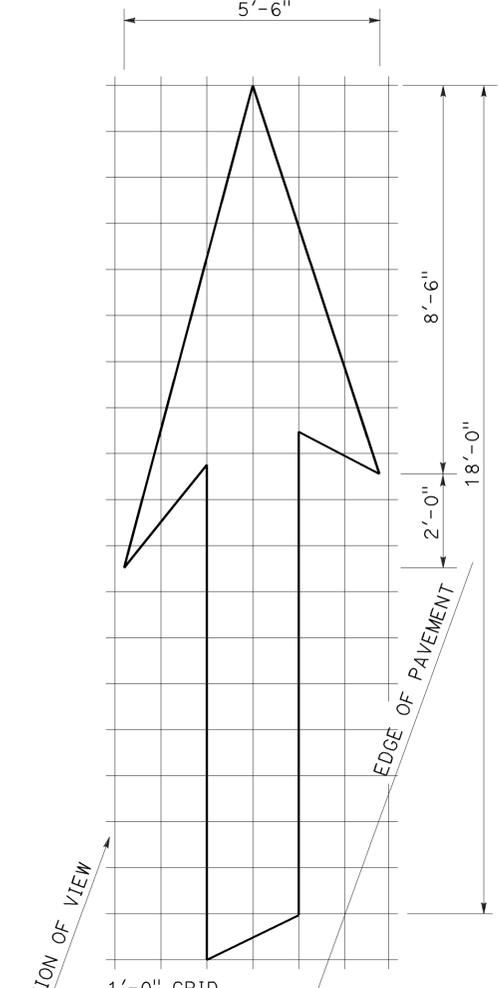
1'-0" GRID 1'-0"
A=31 ft²
TYPE I 24'-0" ARROW



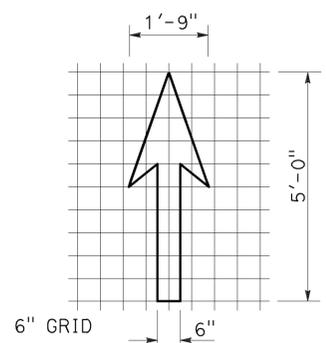
1'-0" GRID 1'-0"
A=14 ft²
TYPE I 10'-0" ARROW



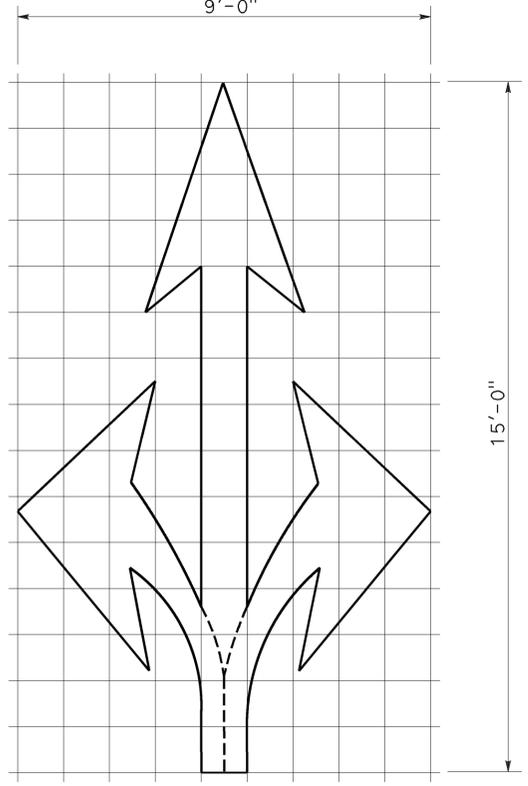
1'-0" GRID 1'-0"
A=15 ft²
TYPE IV (L) ARROW
(For Type IV (R) arrow, use mirror image)



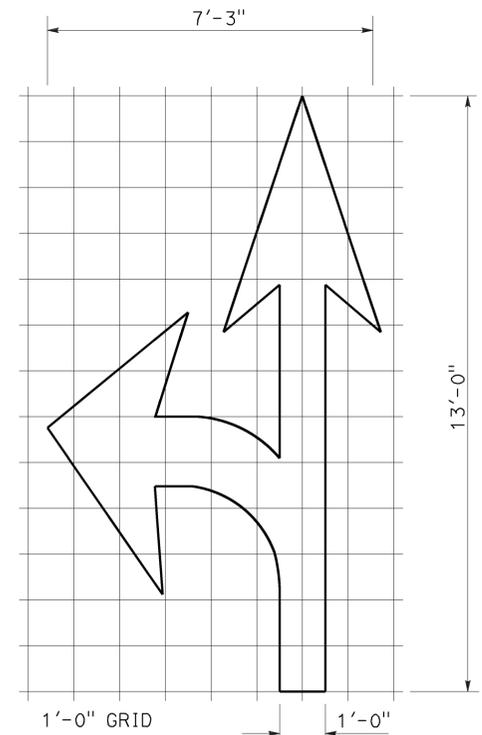
DIRECTION OF VIEW
20°
1'-0" GRID
A=42 ft²
TYPE VI ARROW
Right lane drop arrow
(For left lane, use mirror image)



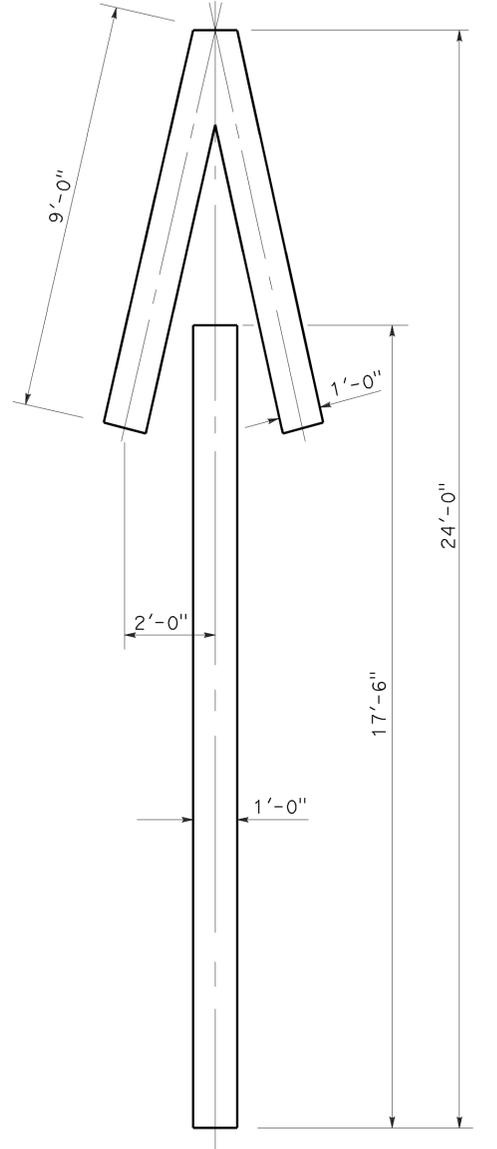
6" GRID 6"
A=3.5 ft²
BIKE LANE ARROW



1'-0" GRID 1'-0"
A=36 ft²
TYPE VIII ARROW



1'-0" GRID 1'-0"
A=27 ft²
TYPE VII (L) ARROW
(For Type VII (R) arrow, use mirror image)



A=33 ft²
TYPE V ARROW

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

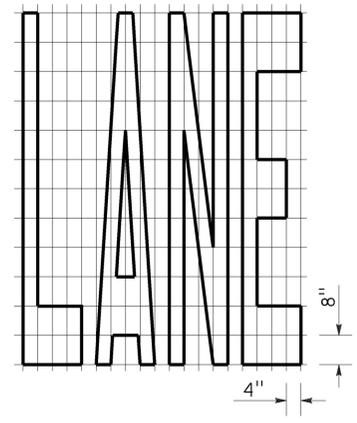
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A
DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

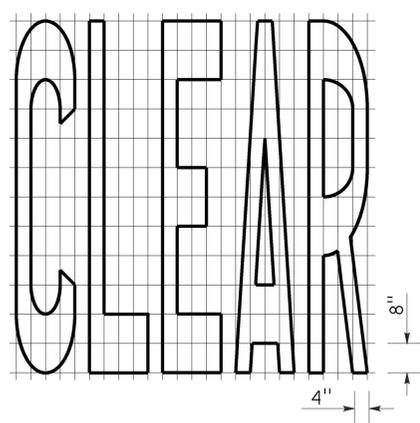
REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

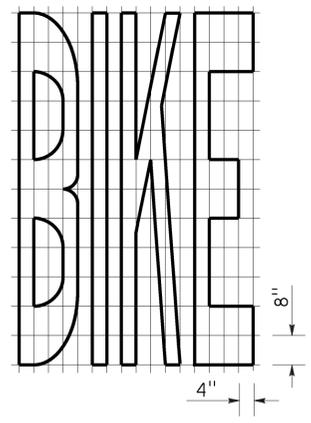
TO ACCOMPANY PLANS DATED 11-16-15



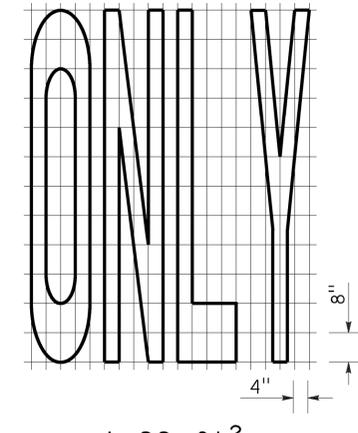
A=24 ft²



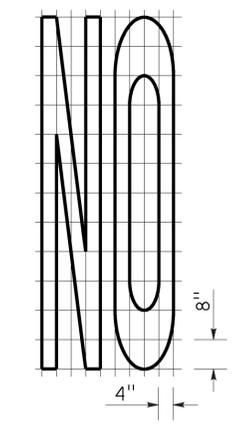
A=27 ft²



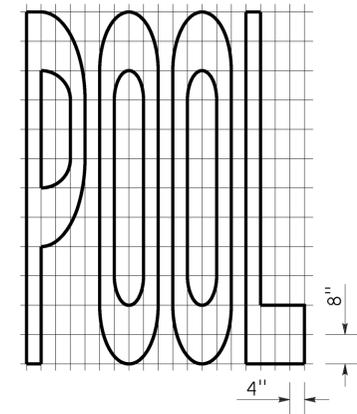
A=21 ft²



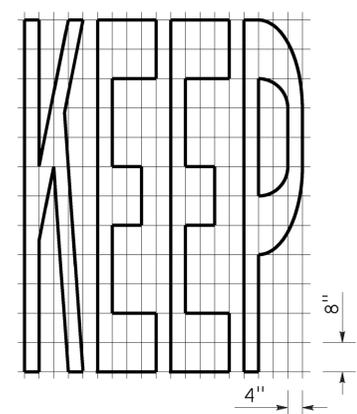
A=22 ft²



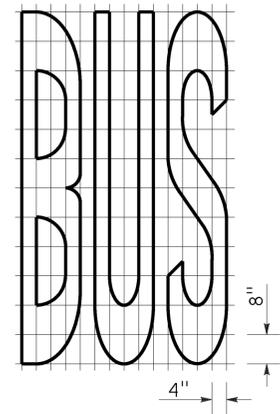
A=14 ft²



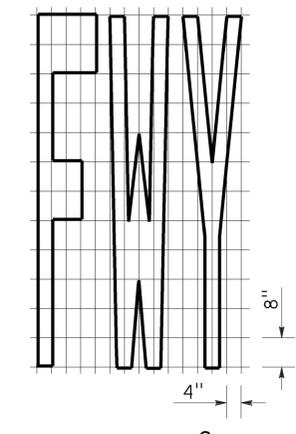
A=23 ft²



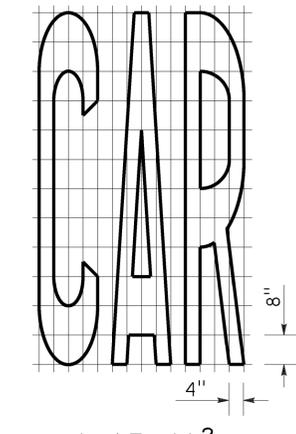
A=24 ft²



A=20 ft²

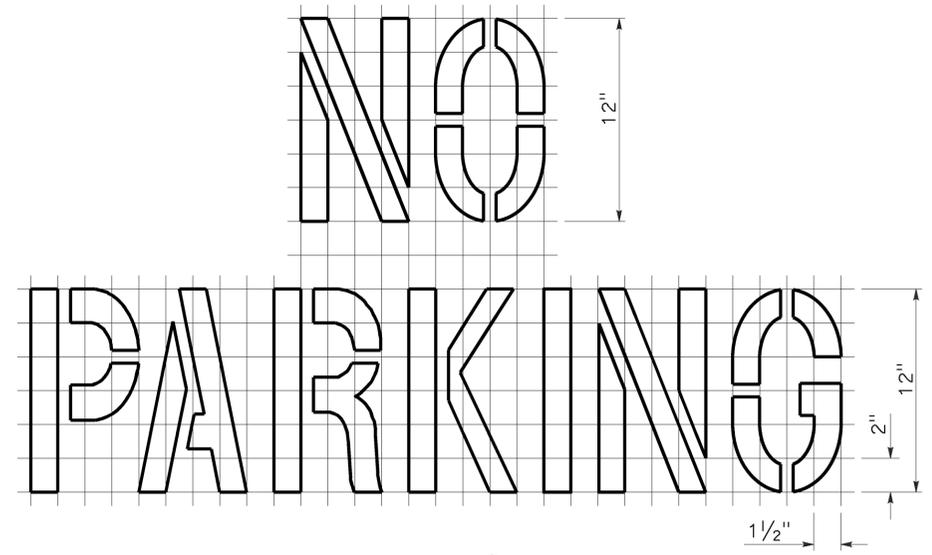


A=16 ft²

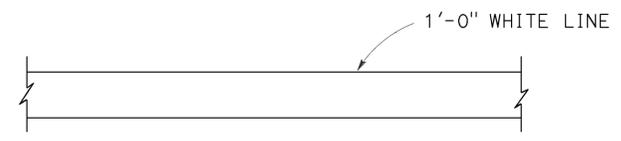


A=17 ft²

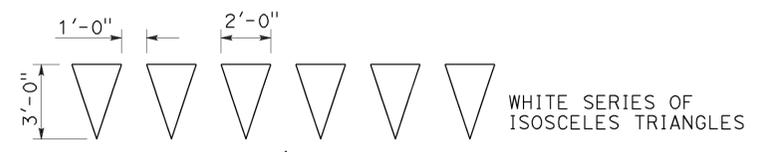
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



DIRECTION OF TRAVEL
YIELD LINE

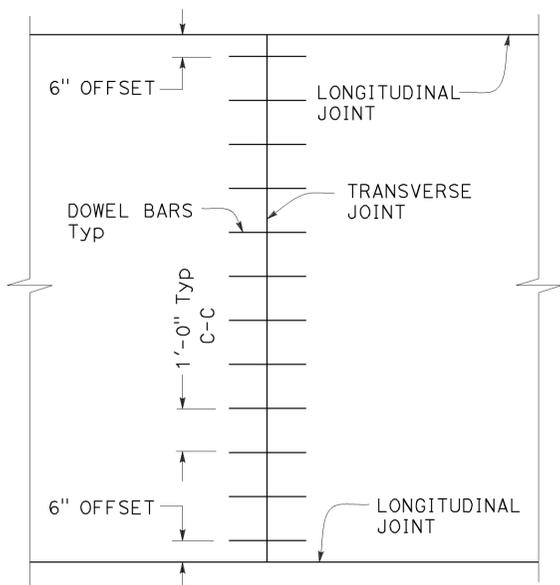
NOTES:

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

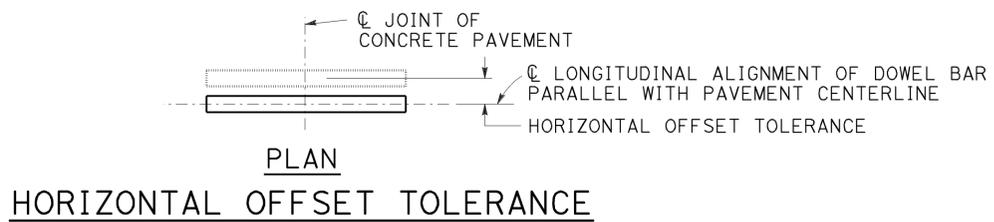
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES**
NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

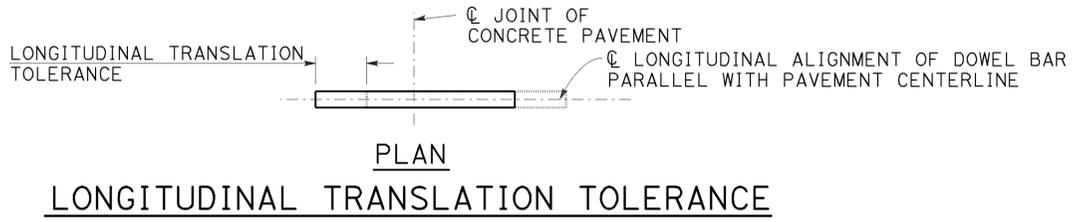
2010 REVISED STANDARD PLAN RSP A24E



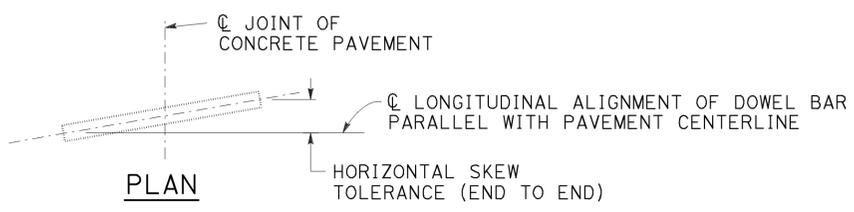
**TRANSVERSE JOINT
DOWEL BAR LAYOUT**



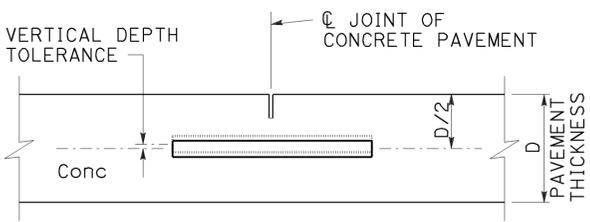
HORIZONTAL OFFSET TOLERANCE



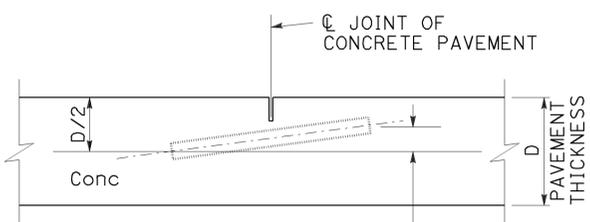
LONGITUDINAL TRANSLATION TOLERANCE



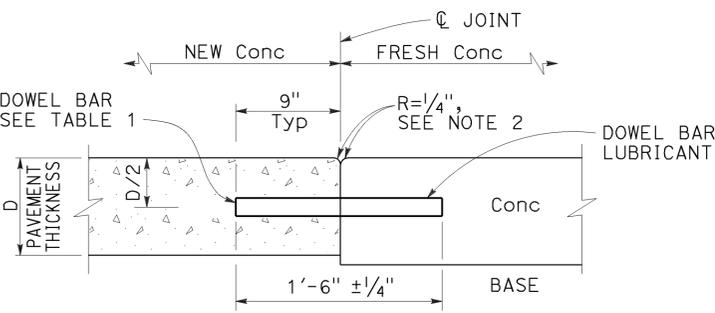
HORIZONTAL SKEW TOLERANCE



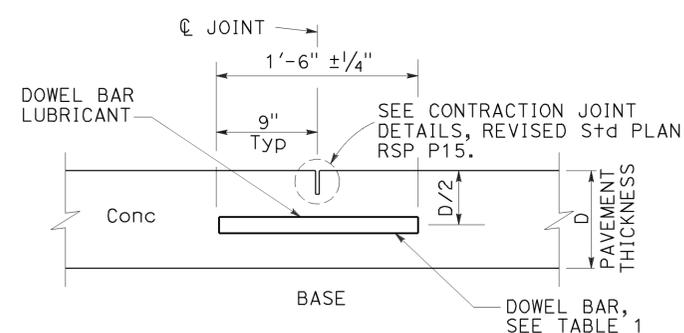
**ELEVATION
VERTICAL DEPTH TOLERANCE**



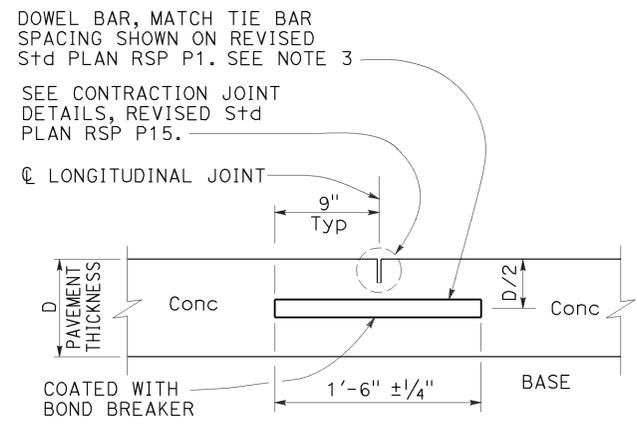
**ELEVATION
VERTICAL SKEW TOLERANCE**



**TRANSVERSE
CONSTRUCTION JOINT DETAIL**



TRANSVERSE CONTRACTION JOINT



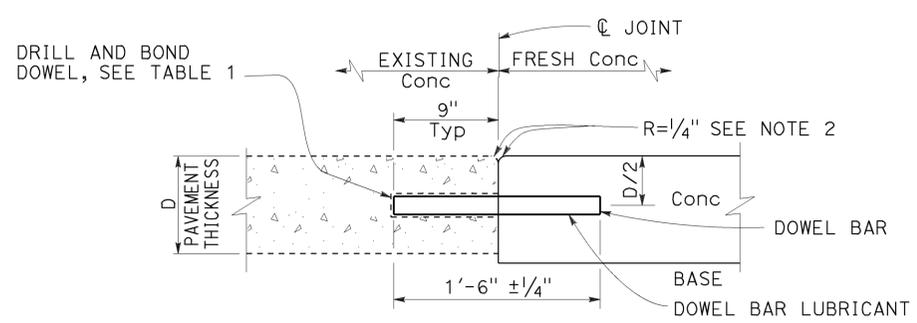
**LONGITUDINAL CONTRACTION
JOINT WITH DOWEL BARS**

See Revised Std Plan RSP P18

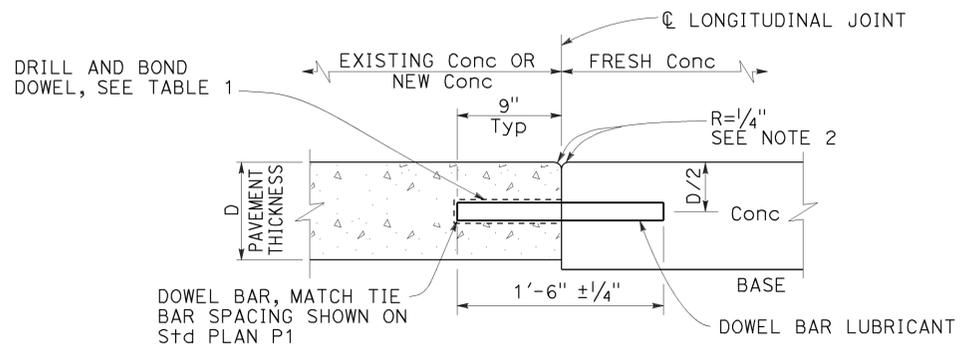
**TABLE 1
DOWEL BAR DIAMETER TABLE**

PAVEMENT THICKNESS	0.65'	> 0.65' - 0.85'	> 0.85'
MINIMUM DOWEL * BAR DIAMETER	1"	1 1/4"	1 1/2"

* The drilled hole diameter must be 1/8" to 3/16" larger than the bar diameter.



**TRANSVERSE CONSTRUCTION JOINT
FOR EXISTING CONCRETE PAVEMENT**



**LONGITUDINAL CONSTRUCTION JOINT
WITH DOWEL BARS**

See Revised Std Plan RSP P18

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT
DOWEL BAR
DETAILS**

NO SCALE

RSP P10 DATED JULY 19, 2013 SUPERSEDES RSP P10 DATED APRIL 20, 2012 AND STANDARD PLAN P10 DATED MAY 20, 2011 - PAGE 131 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP P10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	11	28

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 July 19, 2013
 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.

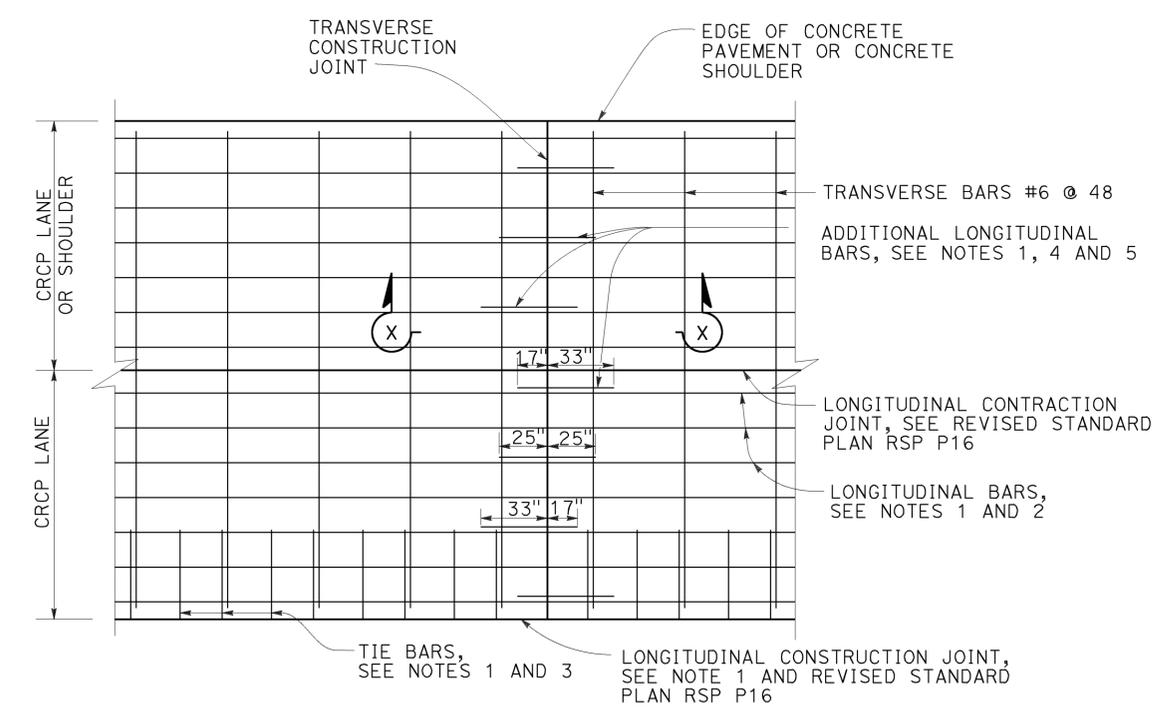
TO ACCOMPANY PLANS DATED 11-16-15

NOTES:

1. For longitudinal bar size, spacing and clearances, see Table 1 on Revised Standard Plan RSP P4.
2. The length of lap splices for bar reinforcement must be at least 25".
3. For tie bars in longitudinal construction joint, see Revised Standard Plan RSP P16.
4. Place additional longitudinal bars parallel to and in the same plane as the longitudinal bars.
5. Place additional longitudinal bars symmetrically about longitudinal construction joint.

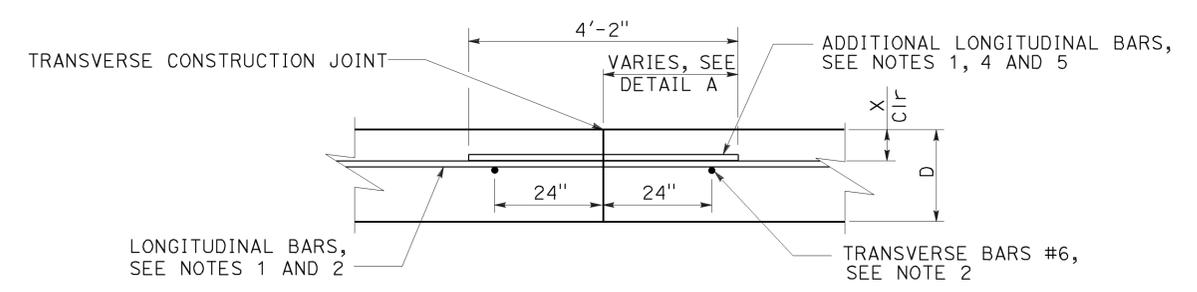
ABBREVIATION

D = Thickness of CRCP



DETAIL A

Additional longitudinal bars at transverse construction joint



**SECTION X-X
TRANSVERSE CONSTRUCTION JOINT**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CONTINUOUSLY REINFORCED
CONCRETE PAVEMENT
TRANSVERSE CONSTRUCTION JOINT**

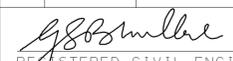
NO SCALE

RSP P14 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P14

2010 REVISED STANDARD PLAN RSP P14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	12	28


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 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.

TO ACCOMPANY PLANS DATED 11-16-15

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
 W = Width of offset in feet
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph
 ** - Longitudinal buffer space or flagger station spacing
 *** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**
 NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

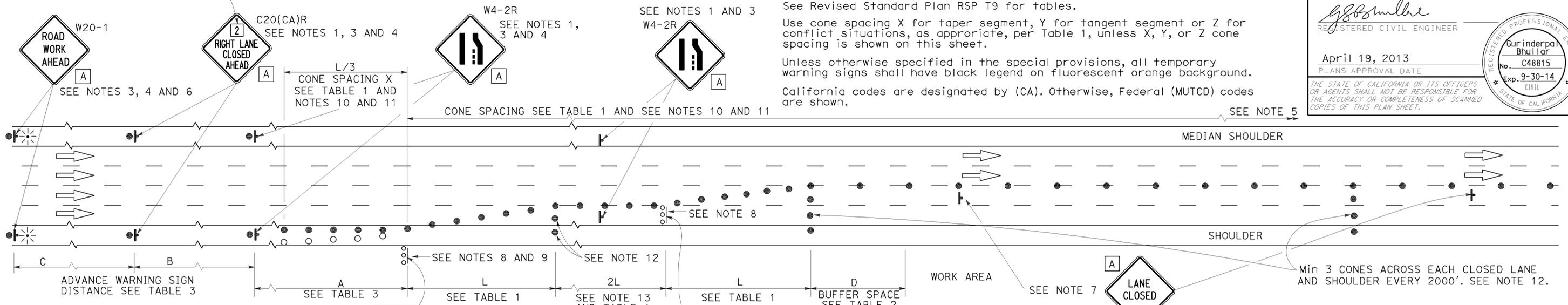
2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	13	28

April 19, 2013
 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.

2010 REVISED STANDARD PLAN RSP T10

OVERLAY (AS APPROPRIATE)



NOTES:

TO ACCOMPANY PLANS DATED 11-16-15

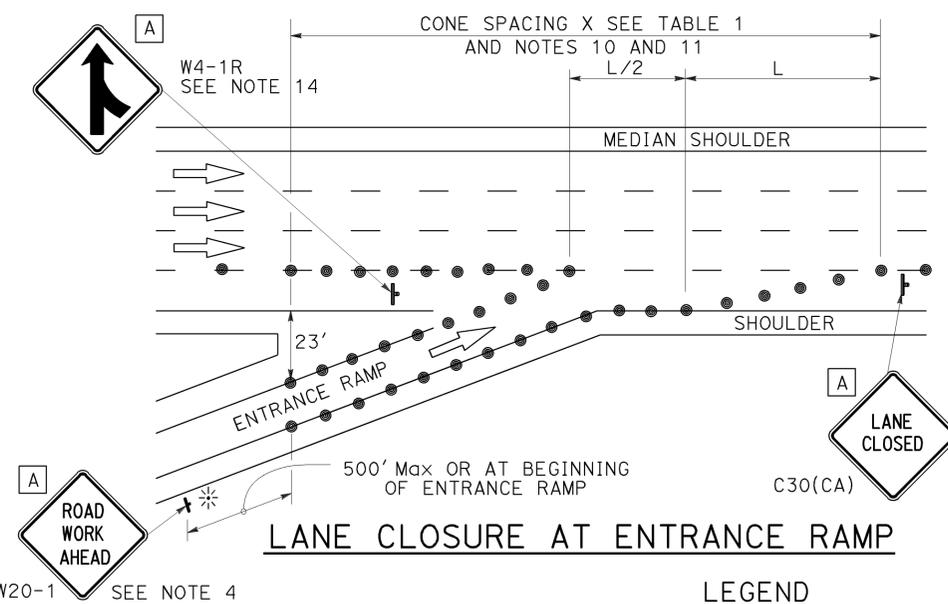
See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

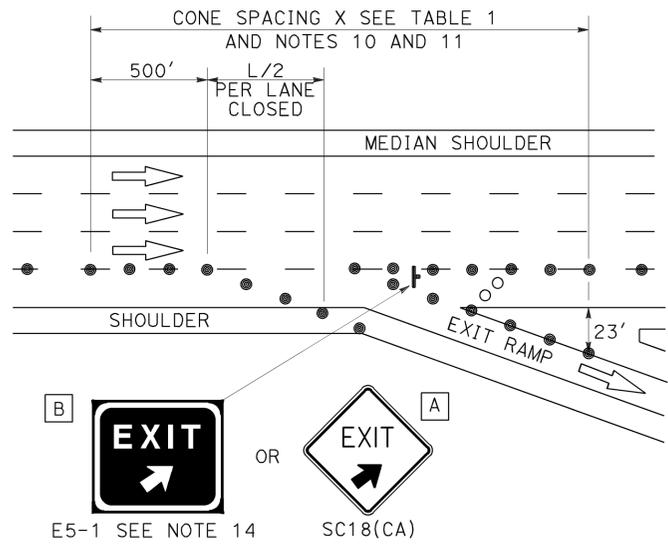
Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

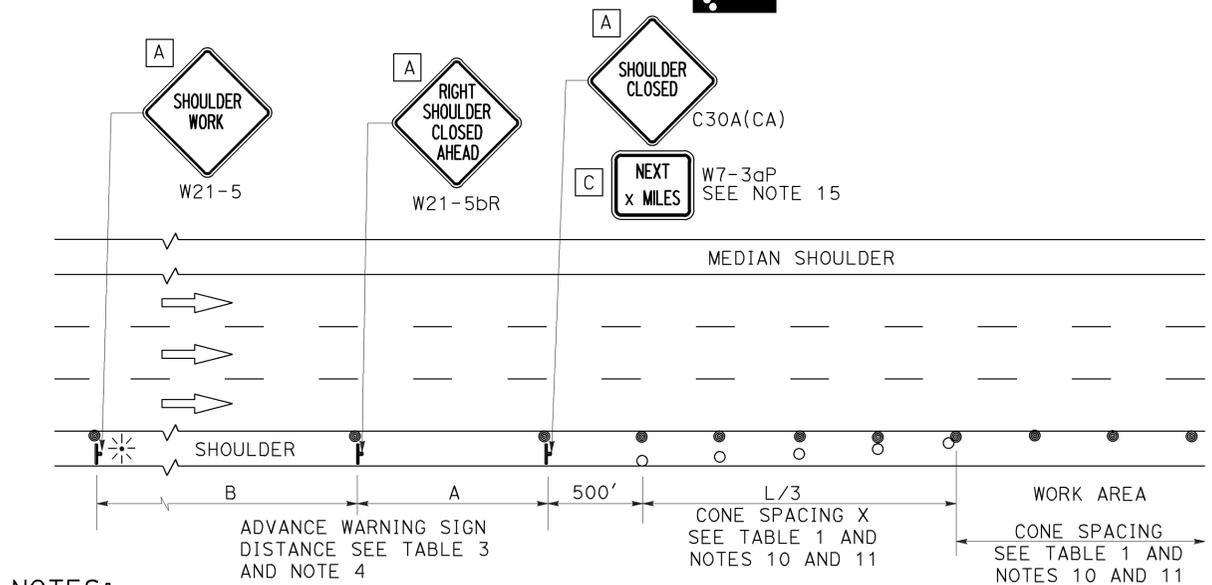
LANE CLOSURE



LANE CLOSURE AT ENTRANCE RAMP



LANE CLOSURE AT EXIT RAMP



SHOULDER CLOSURE

NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
 - a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT _____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 72" x 60"
- C 36" x 30"

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	14	28

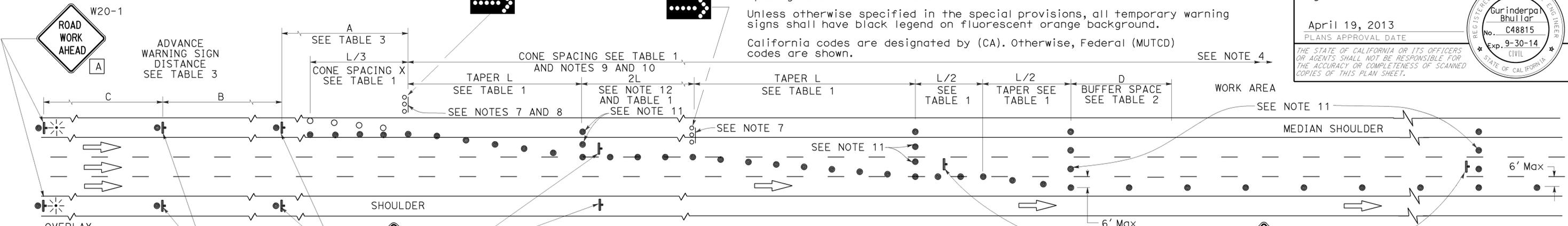
REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 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.

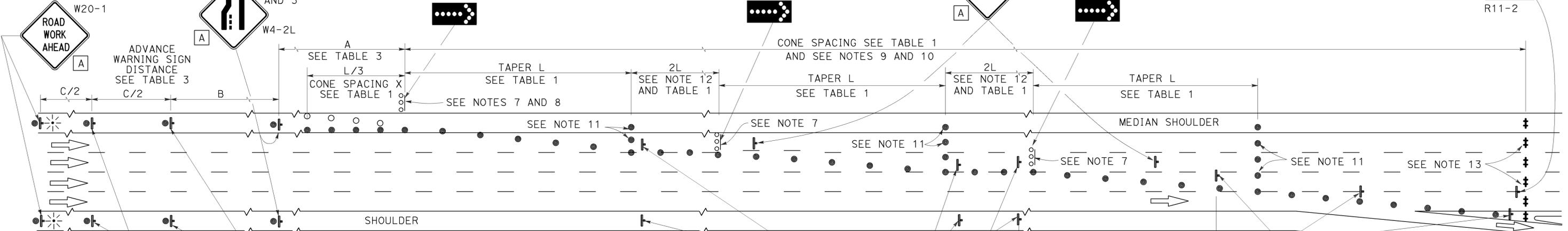
NOTES: See Revised Standard Plan RSP T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
 California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

SEE NOTES 3 AND 5



LANE CLOSURE WITH PARTIAL SHOULDER USE

SEE NOTES 3 AND 5



COMPLETE CLOSURE

NOTES:

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT ___ MILES", use a C20(CA) sign for the first advance warning sign.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 18"
- C 48" x 30"

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURES ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10A

2010 REVISED STANDARD PLAN RSP T10A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	15	28

REGISTERED CIVIL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

April 19, 2013
 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.

LEGEND

- TRAFFIC CONE
- ⌋ TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⦿ FAS SUPPORT OR TRAILER
- ☀ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 24" x 24"
- C 36" x 18"

NOTES:

See Revised Standard Plan RSP T9 for tables.

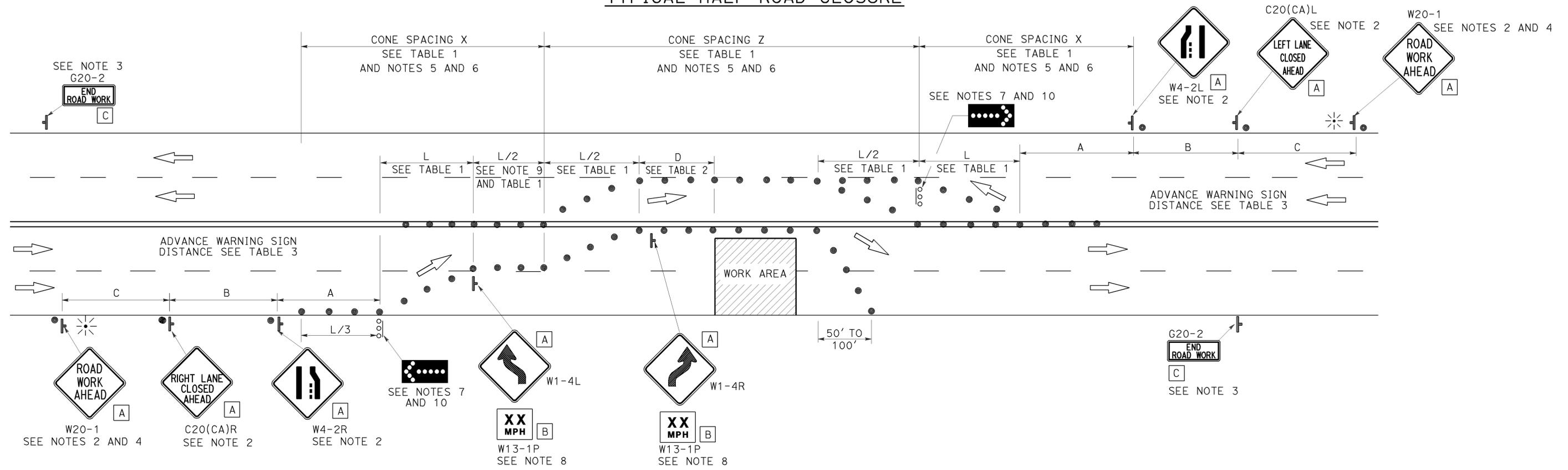
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

TO ACCOMPANY PLANS DATED 11-16-15

TYPICAL HALF ROAD CLOSURE



NOTES:

1. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
2. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
4. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow signs shall be either Type I or Type II.
8. Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
9. Unless otherwise specified in the special provisions, the tangent (L/2) shall be used.
10. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR HALF ROAD CLOSURE ON
MULTILANE CONVENTIONAL
HIGHWAYS AND EXPRESSWAYS**

NO SCALE

RSP T12 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T12
DATED MAY 20, 2011 - PAGE 240 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T12

2010 REVISED STANDARD PLAN RSP T12

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

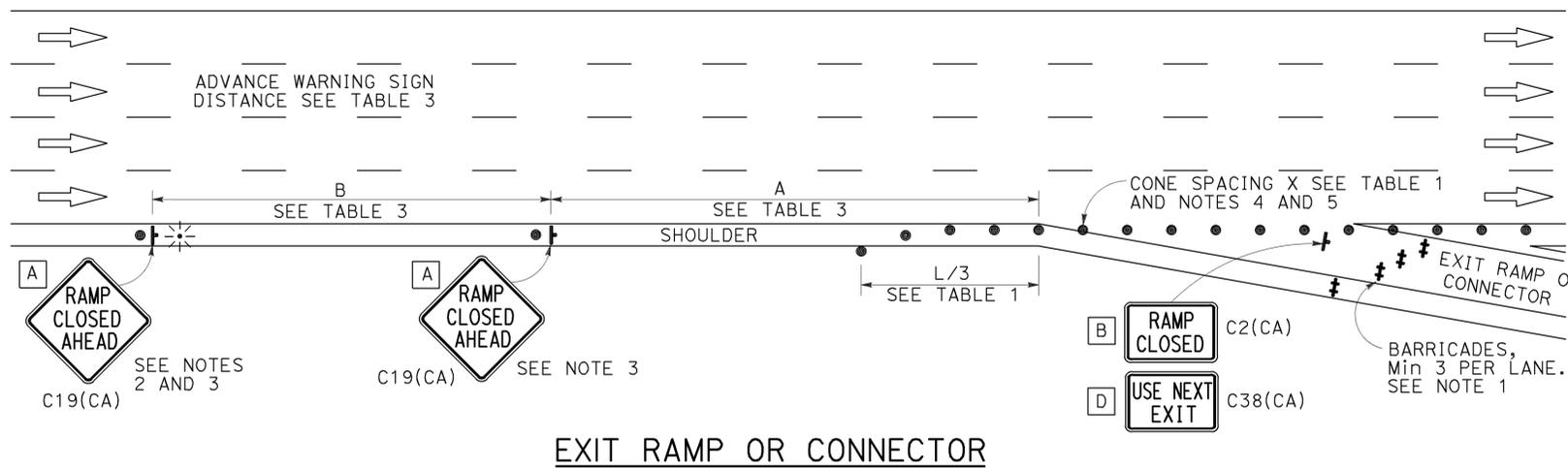
- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	16	28

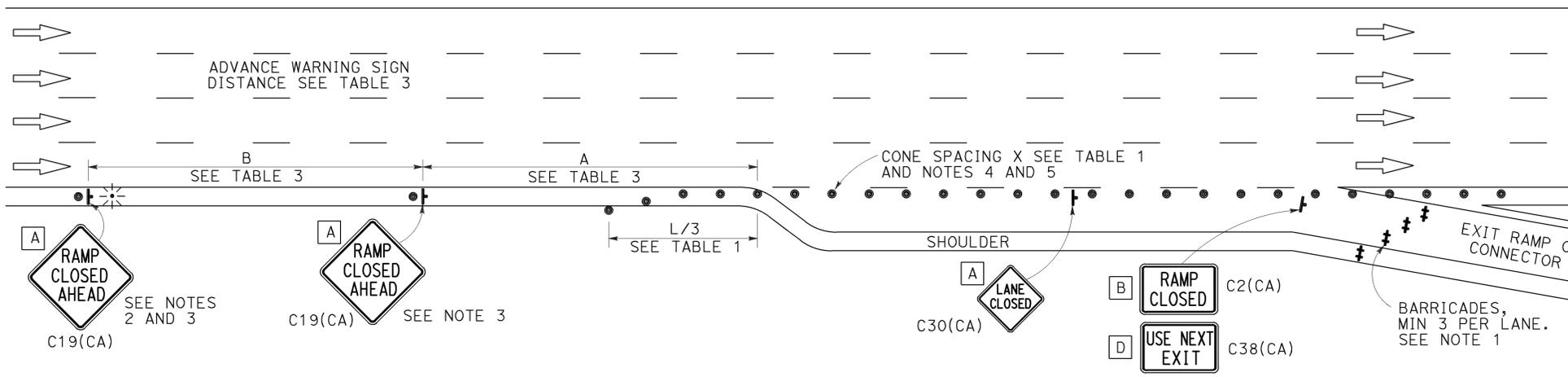
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

April 19, 2013
 PLANS APPROVAL DATE

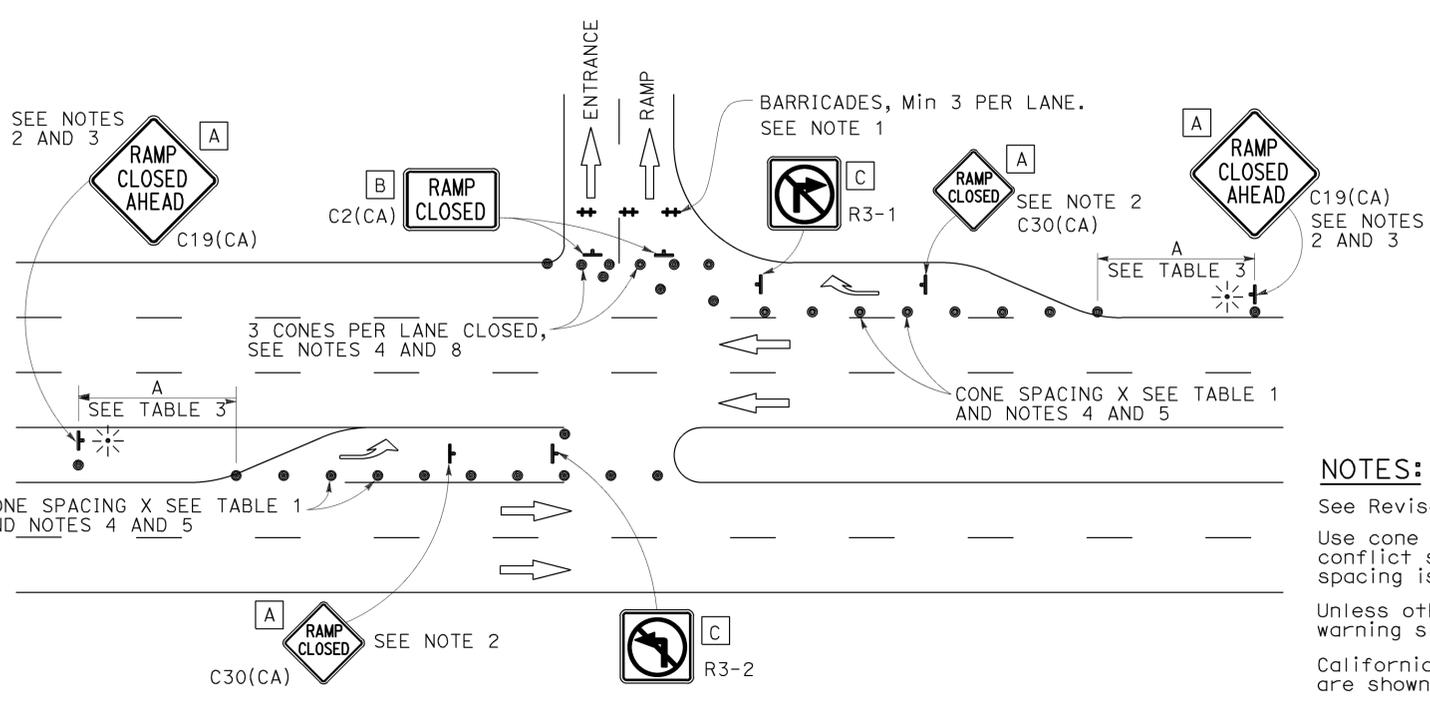
TO ACCOMPANY PLANS DATED 11-16-15



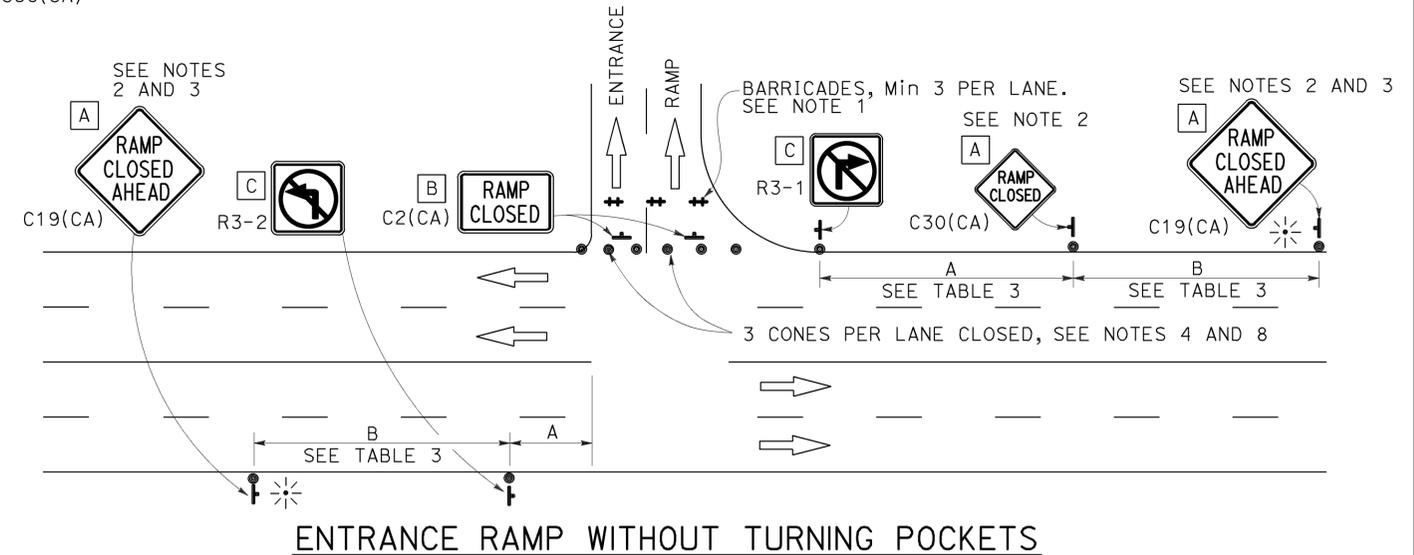
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

1. See Revised Standard Plan RSP T9 for tables.
2. Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
3. Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
4. California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

1. Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
2. In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
3. Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
4. All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
6. At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
7. The existing "EXIT" signs shall be covered during ramp closures.
8. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURE**
 NO SCALE

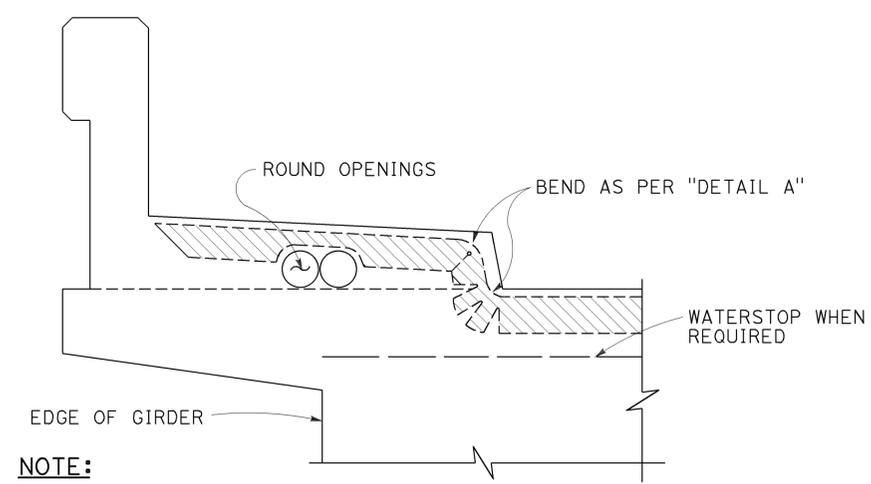
RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14
 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T14

2010 REVISED STANDARD PLAN RSP T14

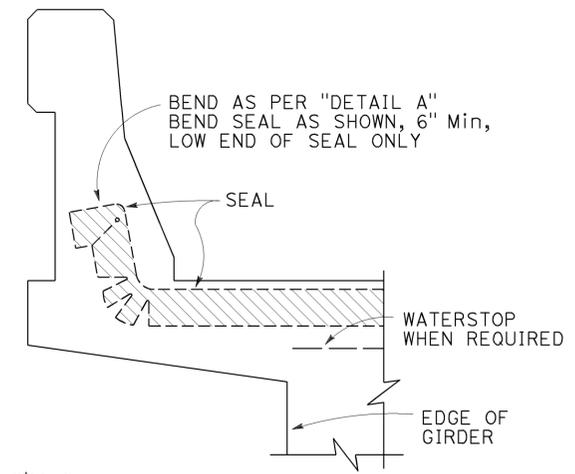
TO ACCOMPANY PLANS DATED 11-16-15

NOTE:
 The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

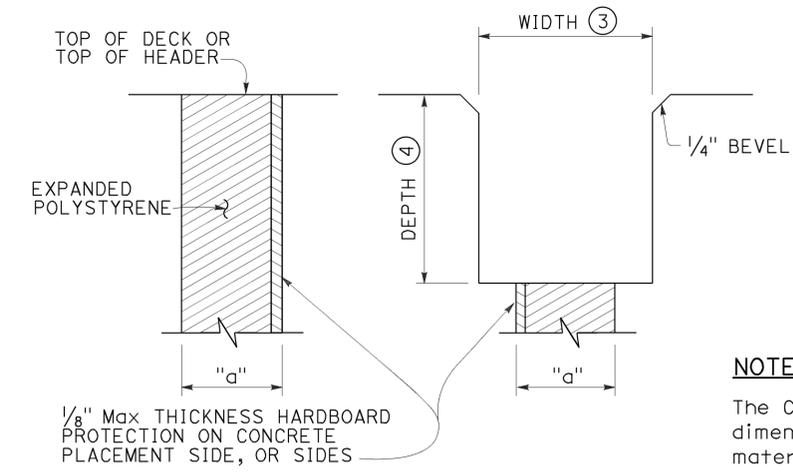


NOTE:
 Type "B" seal shown. Type "A" seals to conform to the general path of seal shown, cuts for bending not required. Bend type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK



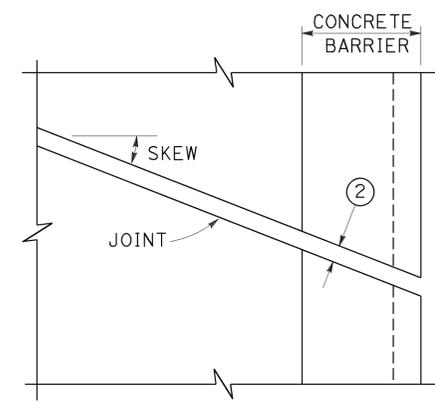
CONCRETE BARRIER



FORMING DETAIL SAWCUT DETAIL

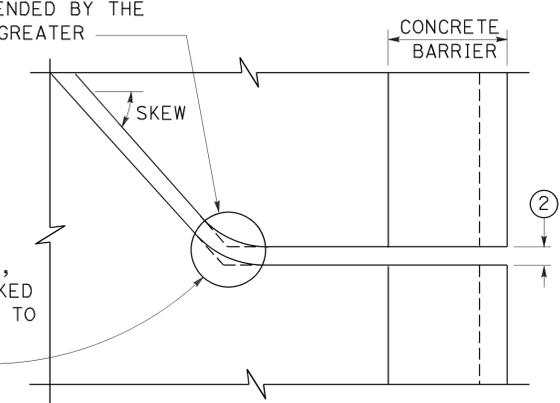
JOINT SEALS DETAILS

Min ϕ RADIUS TO BE 4 TIMES UNCOMPRESSED WIDTH OF SEAL OR AS RECOMMENDED BY THE MANUFACTURER, WHICHEVER IS GREATER

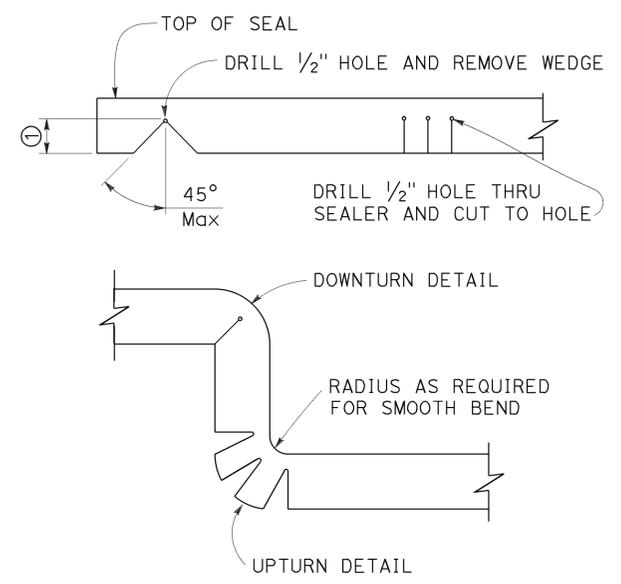


PLAN OF JOINT (SKEW $\leq 20^\circ$)

IN LIEU OF SAW CUTTING, THIS AREA MAY BE BLOCKED OUT AND RECONSTRUCTED TO MATCH SAW CUTTING ON BOTH SIDES.



PLAN OF JOINT (SKEW $> 20^\circ$)

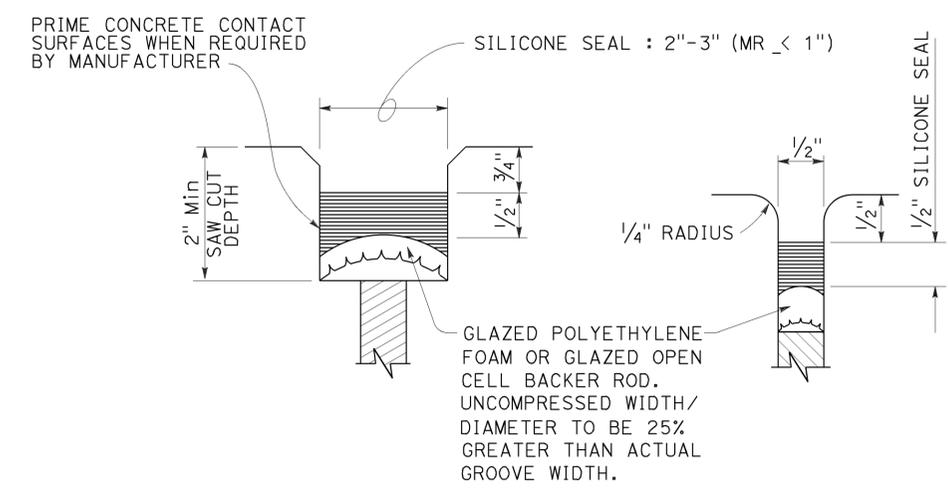


DETAIL A

- NOTES:**
- Make smooth cuts from the bottom of seal to 1 1/2" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
 - Opening in barrier to match width of sawn deck joint.
 - Sawcut groove widths shall be as ordered by the Engineer.
 - Depth of sawcut: Type A - Depth to be 2" minimum.
 Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W_2) plus dimensions shown.
 - MR (movement rating) as shown on other plan sheets.
 - Other depths must be approved by the Engineer.
 - A sidewalk joint shall be covered by an expansion joint armor.

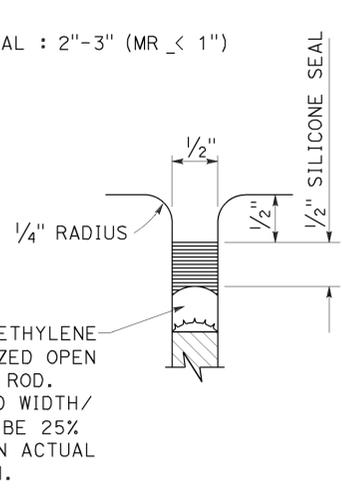
DIMENSIONS "a" OF JOINT REQUIRED

MOVEMENT RATING (MR) ⑤	BRIDGE TYPE	"a" DIMENSION		
		DECK CONCRETE PLACED		
		WINTER	FALL-SPRING	SUMMER
2"	ALL EXCEPT CIP/PS	1 1/2"	1 1/4"	3/4"
	CIP/PS	1 1/4"	1"	1/2"
1 1/2"	ALL EXCEPT CIP/PS	1 1/4"	1"	1/2"
	CIP/PS	1"	3/4"	1/2"
1"	ALL EXCEPT CIP/PS	1"	3/4"	1/2"
	CIP/PS	3/4"	1/2"	1/2"
1/2"	ALL EXCEPT CIP/PS	3/4"	3/4"	1/2"
	CIP/PS	1/2"	1/2"	1/2"



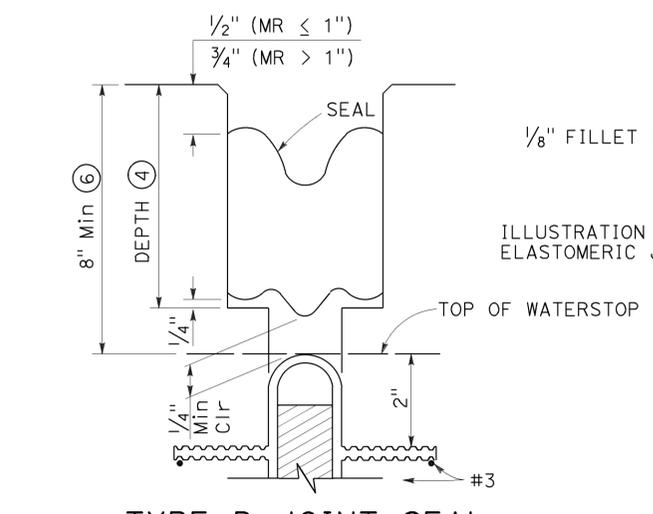
TYPE A SEAL

Movement rating : Silicone = 1" Max

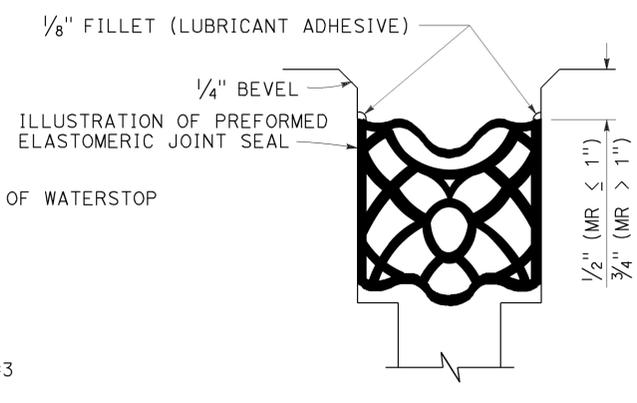


TYPE AL SEAL

Longitudinal joints only



TYPE B JOINT SEAL IN MINIMUM WIDTH POSITION (W_2)



TYPE B SEAL

Movement Rating $\leq 2"$

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
JOINT SEALS
(MAXIMUM MOVEMENT RATING = 2")

NO SCALE
 RSP B6-21 DATED OCTOBER 30, 2015 SUPERSEDES
 STANDARD PLAN B6-21 DATED MAY 20, 2011 -
 PAGE 283 OF THE STANDARD PLANS BOOK DATED 2010.

NOTES: (APPLY TO THIS SHEET ONLY)



Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	18	28

REGISTERED CIVIL ENGINEER DATE 10-09-15
 QUANG M. VO
 No. C 055211
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE 11-16-15
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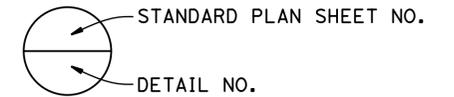
NOTES: (APPLY TO ALL SHEETS)

----- Indicates existing.

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

STANDARD PLANS DATED 2010

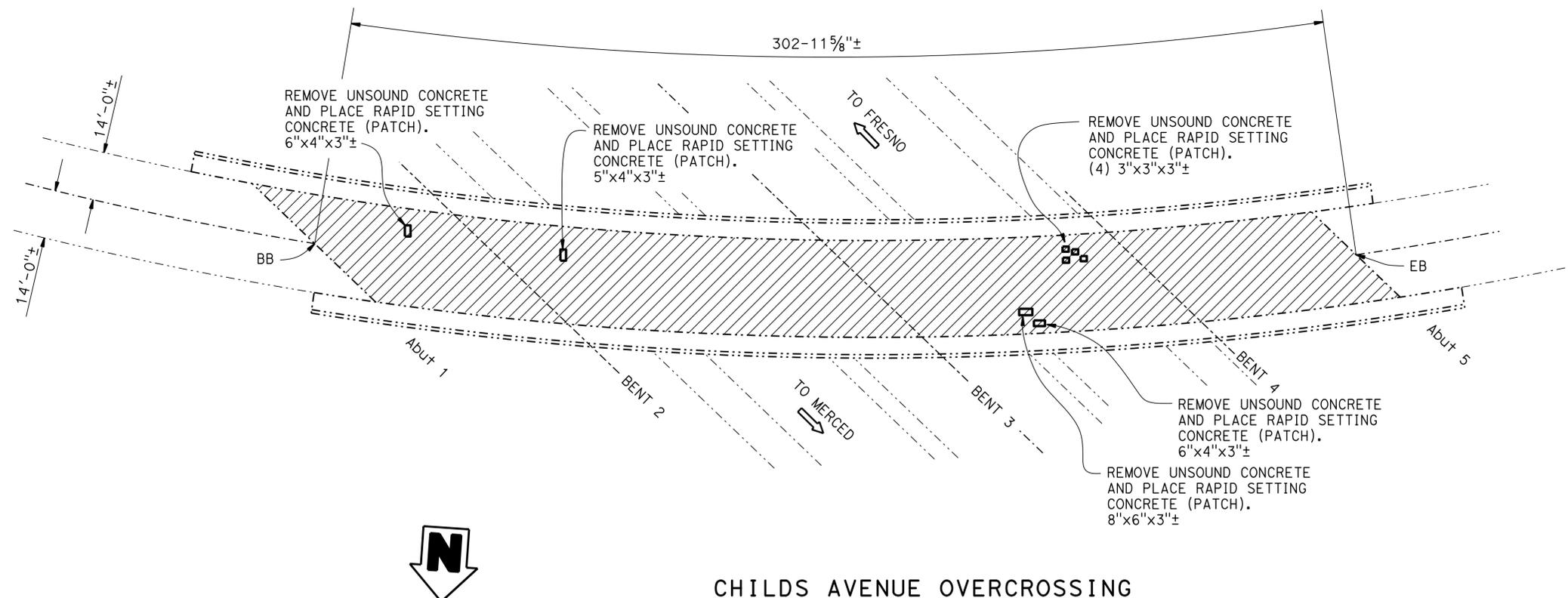
SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
B0-5	BRIDGE DETAILS
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")



INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	GENERAL PLAN NO. 4
5	GENERAL PLAN NO. 5
6	GENERAL PLAN NO. 6
7	GENERAL PLAN NO. 7
8	GENERAL PLAN NO. 8
9	JOINT SEAL DETAILS NO. 1
10	JOINT SEAL DETAILS NO. 2
11	STRUCTURE APPROACH TYPE R (30D)

QUANTITIES		
CHILD'S AVENUE OC	BR NO 39-0143	
RAPID SETTING CONCRETE (PATCH)	6	CF
REMOVE UNSOUND CONCRETE	6	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	8,484	SQFT
TREAT BRIDGE DECK	8,484	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	95	GAL



CHILD'S AVENUE OVERCROSSING

Br No. 39-0143, Mer, ROUTE 99, PM 13.09
1"=20'

10-09-15
 DESIGN ENGINEER

DESIGN BY QUANG VO
 CHECKED A. FRANK
 DETAILS BY DAVID KISH
 CHECKED A. FRANK
 QUANTITIES BY QUANG VO
 CHECKED A. FRANK

LOAD FACTOR DESIGN
 LAYOUT BY DAVID KISH
 CHECKED A. FRANK
 SPECIFICATIONS BY JARVIS MAHE
 PLANS AND SPECS COMPARED JARVIS MAHE

LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
 STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
 POST MILE VARIES

ROUTE 99 BRIDGES
 GENERAL PLAN NO. 1

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: 3488
 PROJECT NUMBER & PHASE: 1015000066 1
 CONTRACT NO.: 10-1E2701

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
3-18-15 4-08-15 4-16-15 4-30-15	1	11

FILE => 10-1e2701_01gp.dgn

USERNAME => s120300 DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 13:58

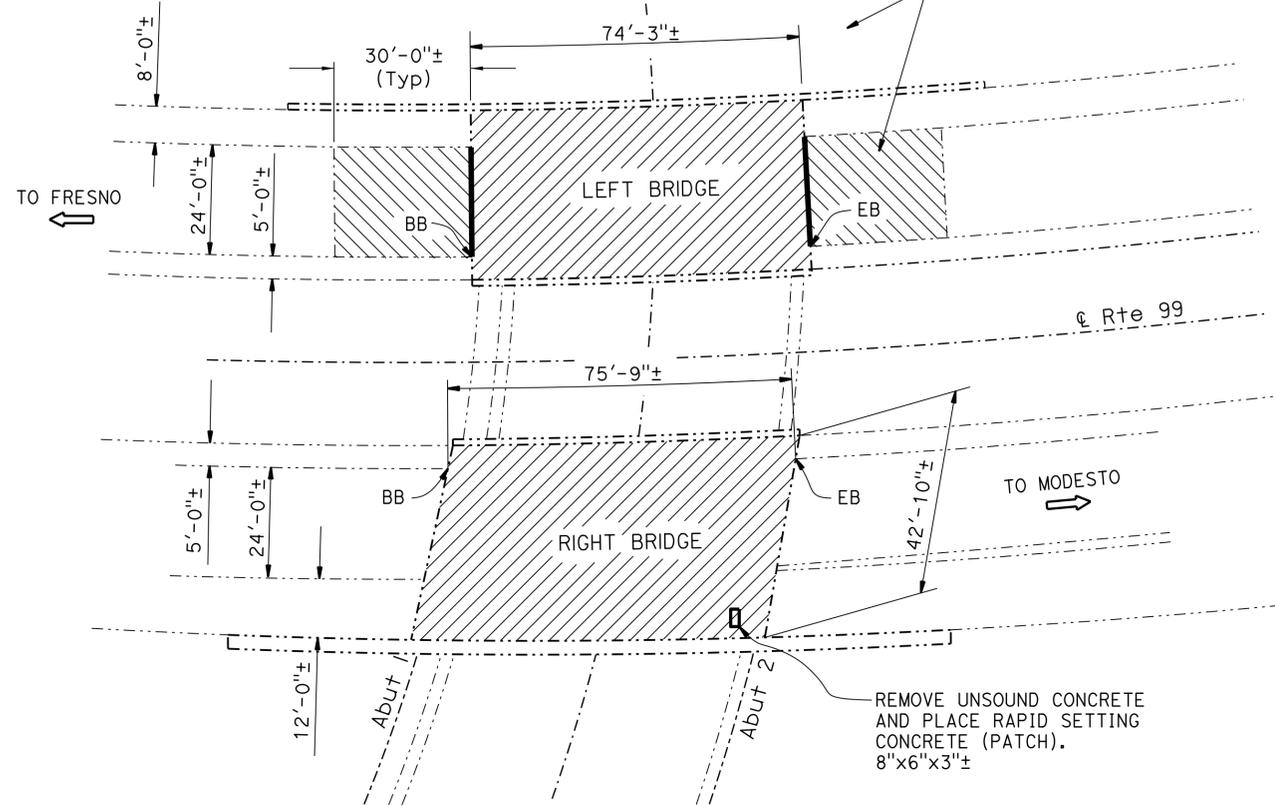
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1 / R36.7	19	28

10-09-15
 REGISTERED CIVIL ENGINEER DATE
 11-16-15
 PLANS APPROVAL DATE
 QUANG M. VO
 No. C 055211
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA
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DEPTH (in)	ROADWAY MATERIAL
9"	PCC
4.2"	CTB
6"	AS

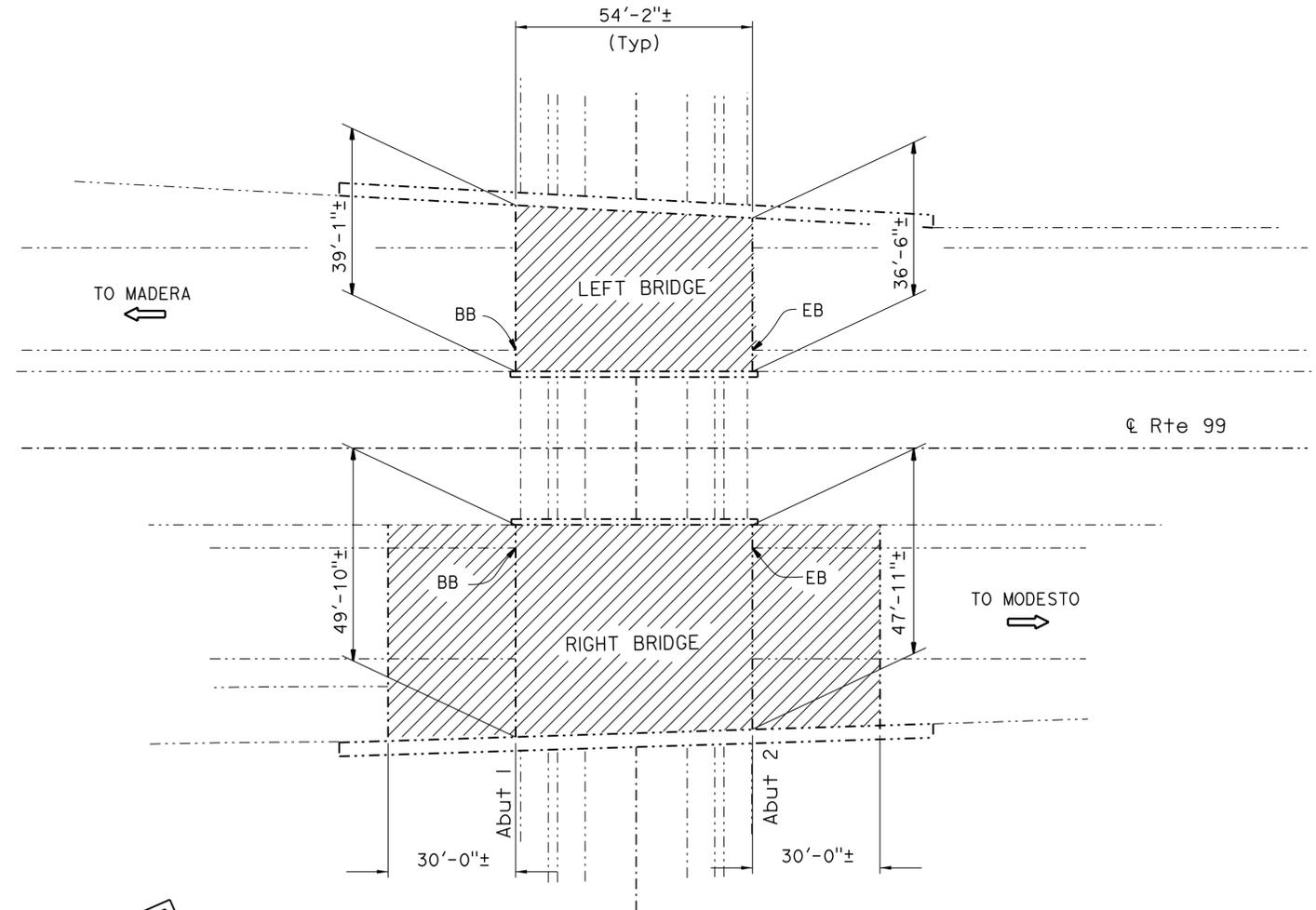
NOTES: (APPLY TO THIS SHEET ONLY)

-  Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.
-  Indicates limits of Structure Approach Slab Type R and paving notch extension for details see "STRUCTURE APPROACH TYPE R (30D)" sheet.
-  Indicates limits of install new joint seal. For details, see "JOINT SEAL DETAILS NO. 2" sheet.



ROUTE 99/140 SEPARATION
 Br No. 39-0140R/L, Mer, Route 99, PM 13.86
 1"=20'

QUANTITIES		BR NO 39-0140 R/L	
ROUTE 99/140 SEPARATION		LUMP SUM	
PUBLIC SAFETY PLAN		5,998	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE		5,998	SQFT
TREAT BRIDGE DECK		67	GAL
FURNISH BRIDGE DECK TREATMENT MATERIAL		64	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)		38	CF
PAVING NOTCH EXTENSION		48	LF
JOINT SEAL (MR 1/2")			



"L" STREET UNDERCROSSING
 Br No. 39-0133R/L, Mer, Route 99, PM 14.87
 1"=20'

QUANTITIES		BR NO 39-0133 R/L	
L STREET UC		7,632	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE		7,632	SQFT
TREAT BRIDGE DECK		85	GAL
FURNISH BRIDGE DECK TREATMENT MATERIAL			

Matthew W. Lee
 DESIGN ENGINEER 10-09-15

DESIGN	BY QUANG VO	CHECKED A. FRANK
DETAILS	BY DAVID KISH	CHECKED A. FRANK
QUANTITIES	BY QUANG VO	CHECKED A. FRANK

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
LAYOUT	BY DAVID KISH
SPECIFICATIONS	BY JARVIS MAHE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

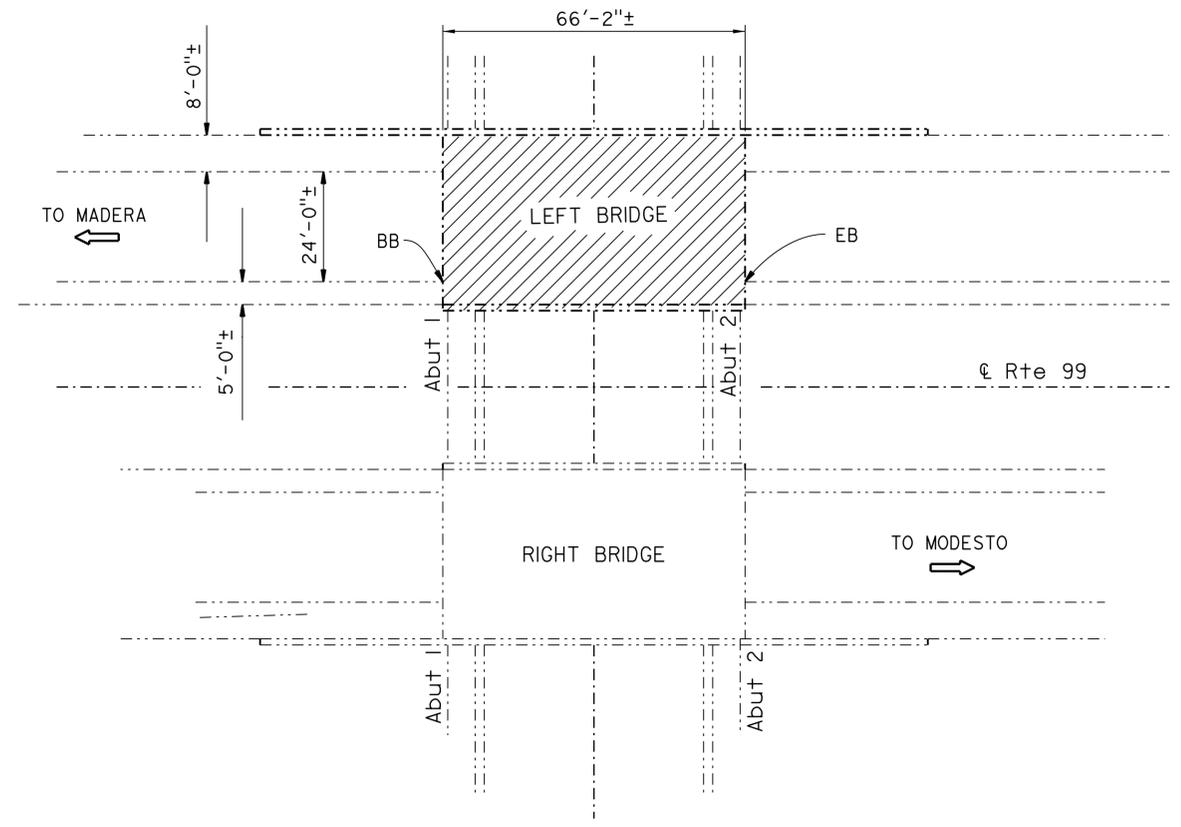
**ROUTE 99 BRIDGES
 GENERAL PLAN NO. 2**



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	20	28
			REGISTERED CIVIL ENGINEER	DATE	
			11-16-15	10-09-15	
			PLANS APPROVAL DATE		
<small>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.</small>					

NOTES: (APPLY TO THIS SHEET ONLY)

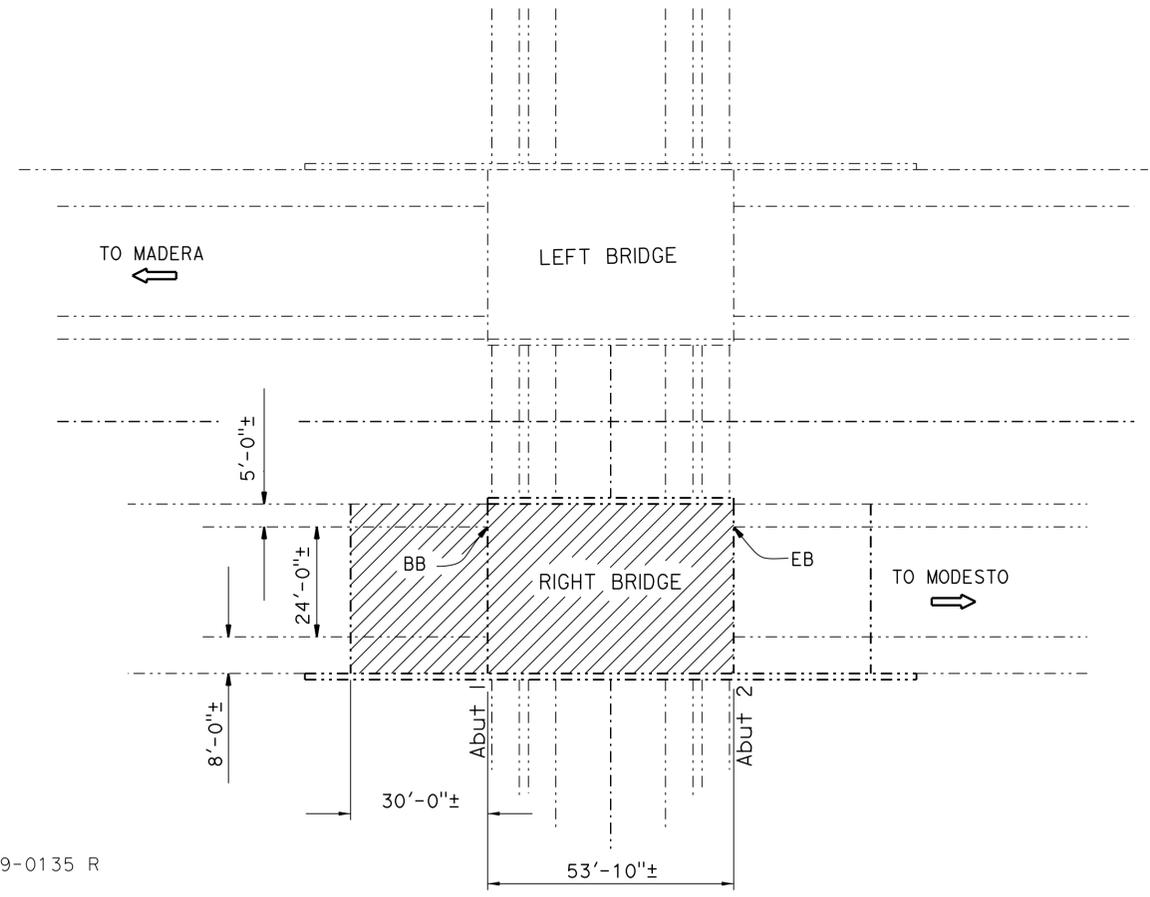
Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.



"M" STREET UNDERCROSSING
 Br No. 39-0134L, Mer, Route 99, PM 14.96
 1"=20'

QUANTITIES

M STREET UC	BR NO 39-0134 L
PUBLIC SAFETY PLAN	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	2,450 SQFT
TREAT BRIDGE DECK	2,450 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	27 GAL



"O" STREET UNDERCROSSING
 Br No. 39-0135R, Mer, Route 99, PM 15.15
 1"=20'

QUANTITIES

O STREET UC	BR NO 39-0135 R
PUBLIC SAFETY PLAN	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	3,102 SQFT
TREAT BRIDGE DECK	3,102 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	35 GAL

DESIGN ENGINEER 10-09-15

DESIGN	BY QUANG VO	CHECKED A. FRANK	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY DAVID KISH	CHECKED A. FRANK	LAYOUT	BY DAVID KISH
QUANTITIES	BY QUANG VO	CHECKED A. FRANK	SPECIFICATIONS	BY JARVIS MAHE
				PLANS AND SPECS COMPARED JARVIS MAHE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 99 BRIDGES
GENERAL PLAN NO. 3

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3488
 PROJECT NUMBER & PHASE: 1015000066 1 CONTRACT NO.: 10-1E2701

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	3-18-15 4-08-15 4-16-15 4-30-15	3	11

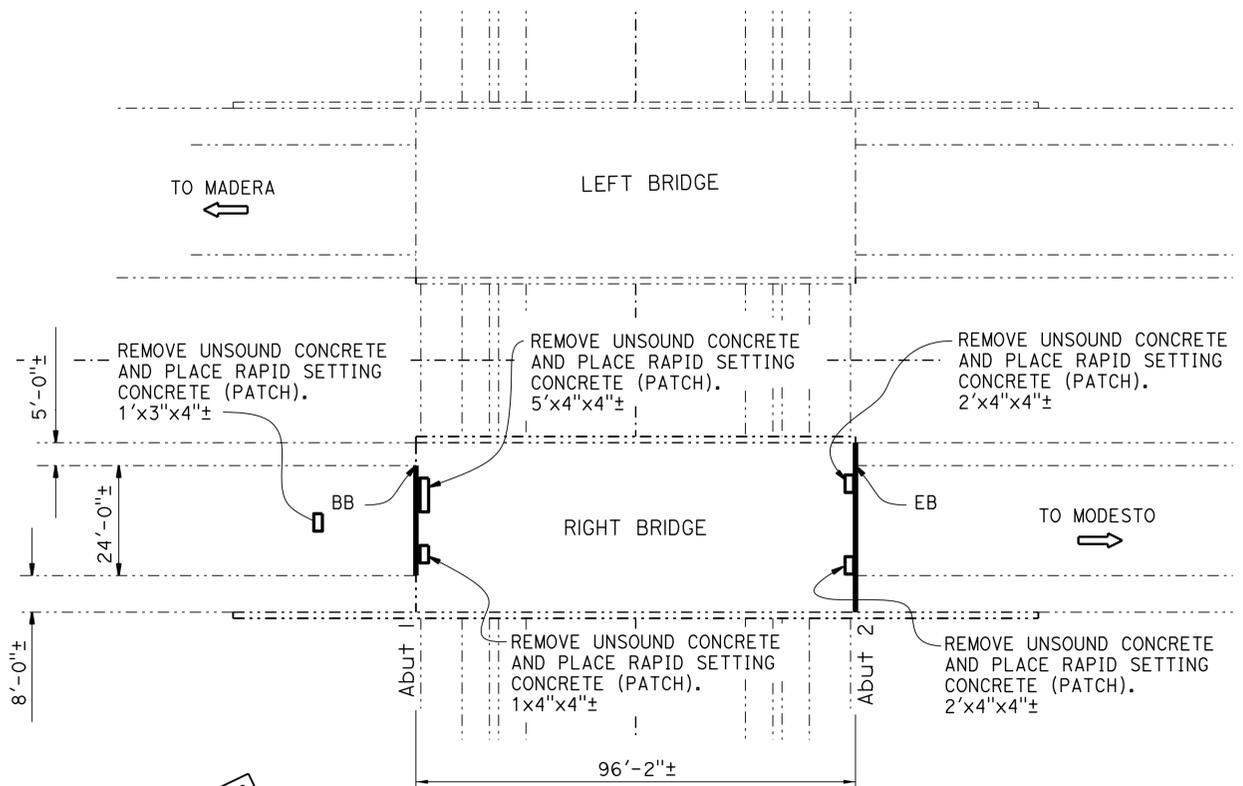
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USERNAME => s120300 DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 13:58

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	21	28
			REGISTERED CIVIL ENGINEER	DATE	
			11-16-15	10-09-15	
			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER QUANG M. VO No. C 055211 Exp. 6-30-16 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: (APPLY TO THIS SHEET ONLY)

Indicates limits of clean expansion joint and install new joint seal. For details, see "JOINT SEAL DETAILS NO. 2" sheet.



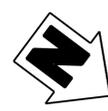
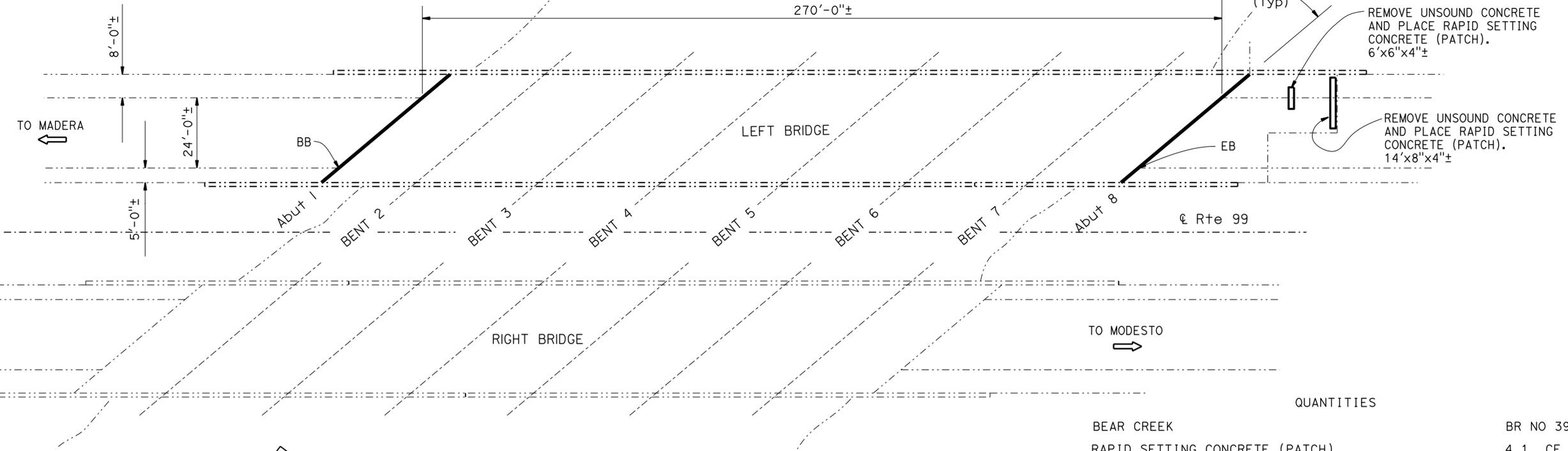
QUANTITIES

R STREET UC	BR NO 39-0137 R
RAPID SETTING CONCRETE (PATCH)	1.2 CF
REMOVE UNSOUND CONCRETE	1.2 CF
CLEAN EXPANSION JOINT	62 LF
JOINT SEAL (MR 1/2")	62 LF



"R" STREET UNDERCROSSING

Br No. 39-0137R, Mer, Route 99, PM 15.42
1"=20'



BEAR CREEK

Br No. 39-0132L, Mer, Route 99, PM 16.38
1"=20'

QUANTITIES

BEAR CREEK	BR NO 39-0132 L
RAPID SETTING CONCRETE (PATCH)	4.1 CF
REMOVE UNSOUND CONCRETE	4.1 CF
CLEAN EXPANSION JOINT	118 LF
JOINT SEAL (MR 2")	118 LF

Matthew W Lee
DESIGN ENGINEER 10-09-15

DESIGN	BY QUANG VO	CHECKED A. FRANK
DETAILS	BY DAVID KISH	CHECKED A. FRANK
QUANTITIES	BY QUANG VO	CHECKED A. FRANK

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
LAYOUT	BY DAVID KISH
SPECIFICATIONS	BY JARVIS MAHE
PLANS AND SPECS COMPARED	JARVIS MAHE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

**ROUTE 99 BRIDGES
GENERAL PLAN NO. 4**

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

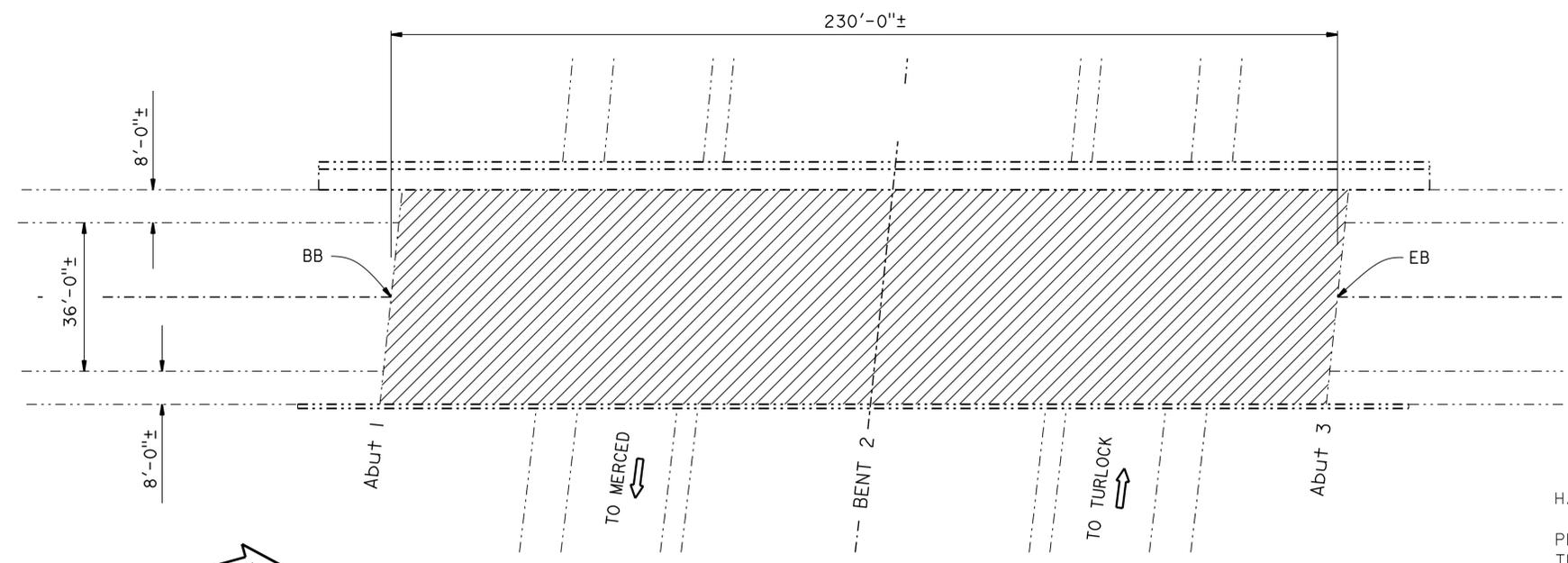
UNIT: 3488
PROJECT NUMBER & PHASE: 1015000066 1 CONTRACT NO.: 10-1E2701

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 4	OF 11
	3-18-15 4-08-15 4-16-15 4-30-15		

FILE => 10-1e2701_04gp.dgn

USERNAME => s120300 DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 13:58

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/r36.7	22	28
			REGISTERED CIVIL ENGINEER	DATE	
			10-09-15		
			PLANS APPROVAL DATE		
			11-16-15		
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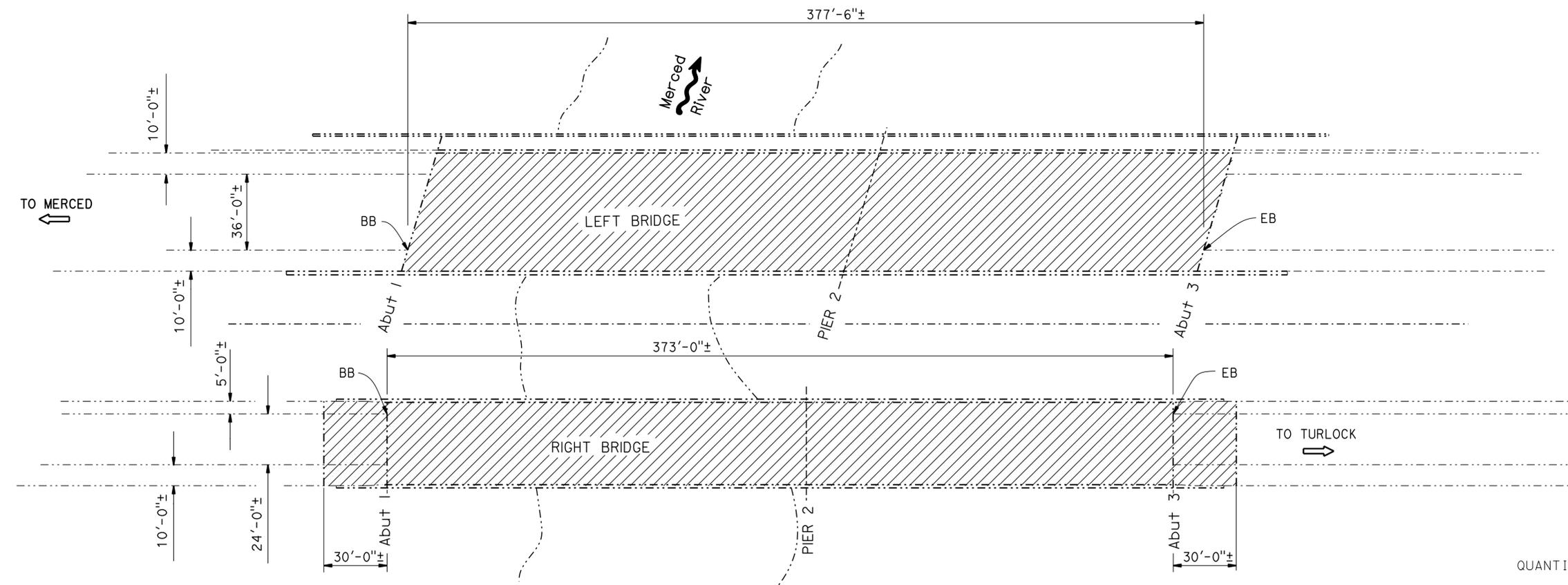
NOTES: (APPLY TO THIS SHEET ONLY)

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.

HAMMATT AVENUE OC		BR NO 39-0220
PREPARE CONCRETE BRIDGE DECK SURFACE	11,960	SQFT
TREAT BRIDGE DECK	11,960	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	133	GAL

HAMMATT AVENUE OVERCROSSING

Br No. 39-0220, Mer, ROUTE 99, PM 29.00
1"=20'



MERCED RIVER		BR NO 39-0015 R/L
PREPARE CONCRETE BRIDGE DECK SURFACE	38,029	SQFT
TREAT BRIDGE DECK	38,029	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	423	GAL

MERCED RIVER

Br No. 39-0015R/L, Mer, ROUTE 99, PM 31.93
1"=30'

DESIGN ENGINEER 10-09-15

DESIGN	BY QUANG VO	CHECKED A. FRANK	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY DAVID KISH	CHECKED A. FRANK	LAYOUT	BY DAVID KISH
QUANTITIES	BY QUANG VO	CHECKED A. FRANK	SPECIFICATIONS	BY JARVIS MAHE
				PLANS AND SPECS COMPARED JARVIS MAHE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 99 BRIDGES
GENERAL PLAN NO. 5

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3488
PROJECT NUMBER & PHASE: 1015000066 1 CONTRACT NO.: 10-1E2701

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
3-18-15 4-08-15 4-16-15 4-30-15	5	11

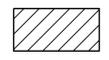
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USERNAME => s120300 DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 13:58

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	23	28
			REGISTERED CIVIL ENGINEER	DATE	
			11-16-15	10-09-15	
			PLANS APPROVAL DATE		
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NOTES: (APPLY TO THIS SHEET ONLY)



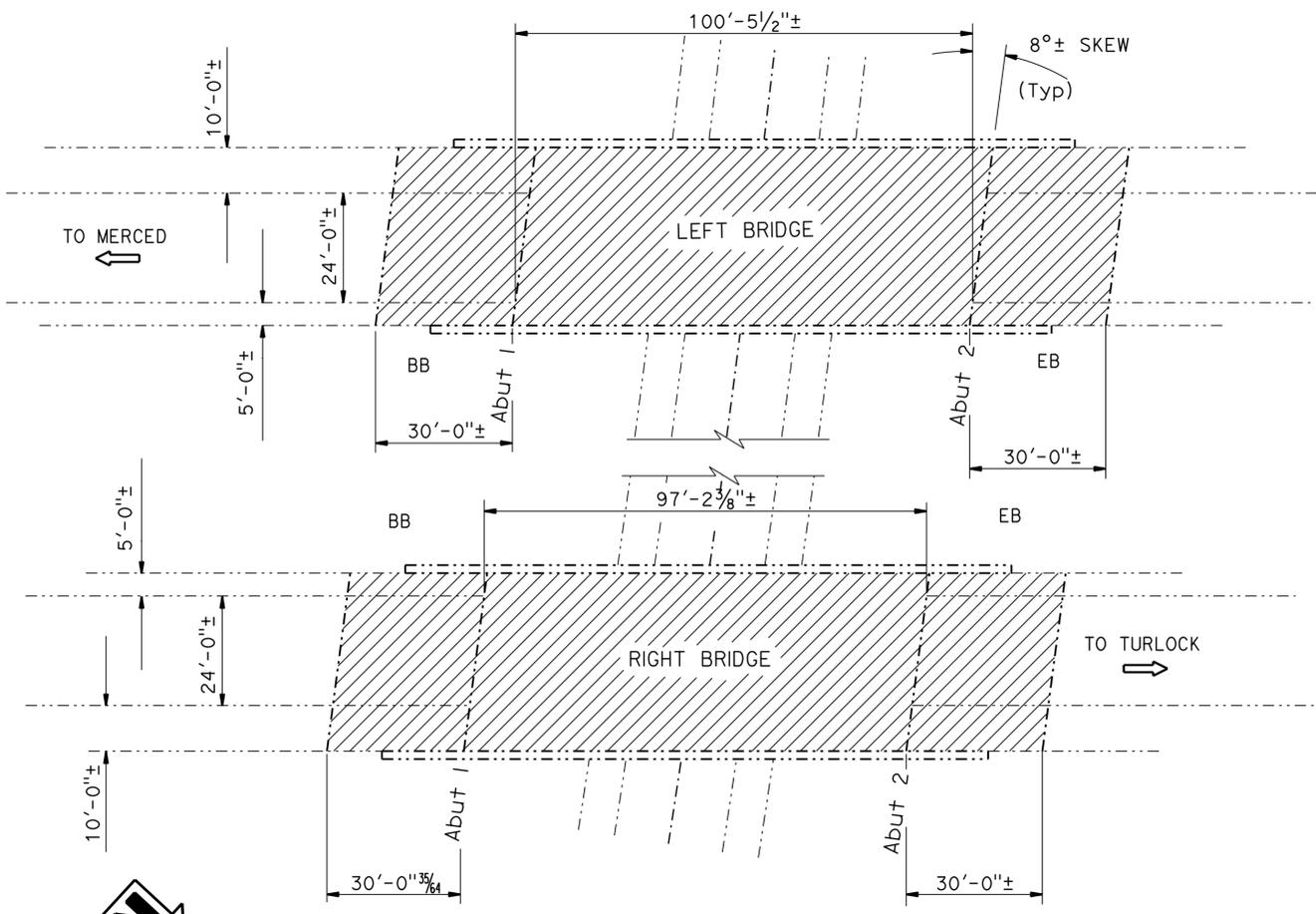
Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.



Indicates limits of clean expansion joint and install new joint seal. For details, see "JOINT SEAL DETAILS NO. 1" sheet.



For "SECTION A-A" see "JOINT SEAL DETAILS NO. 1" sheet.



COLLIER ROAD UNDERCROSSING

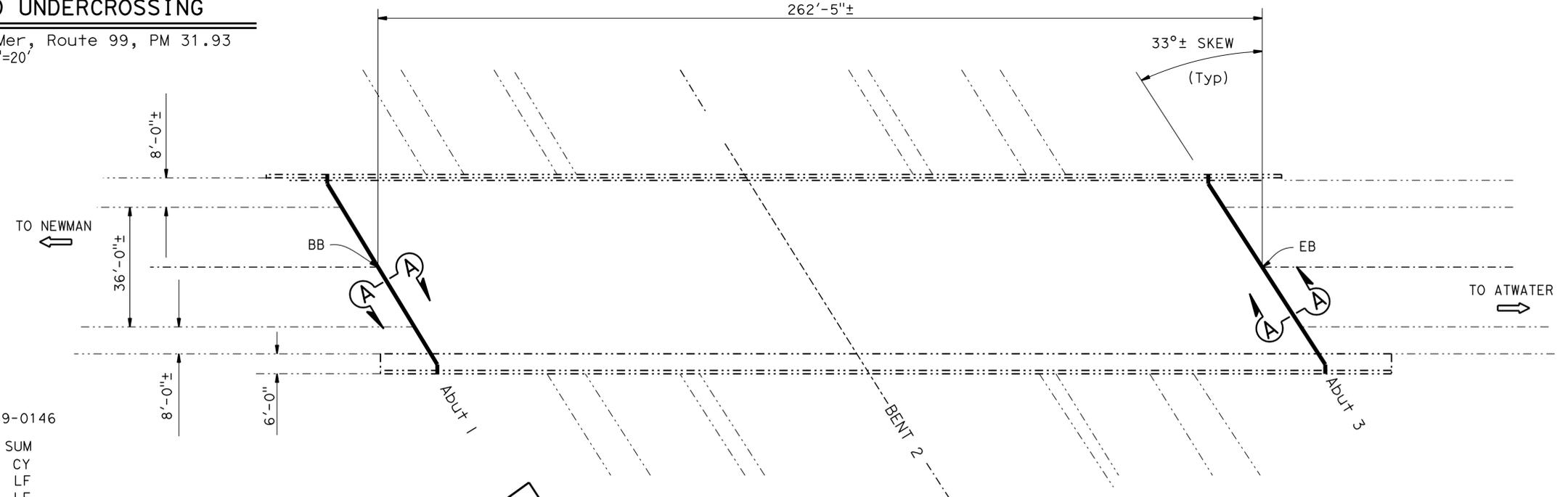
Br No. 39-0224R/L, Mer, Route 99, PM 31.93
1"=20'

QUANTITIES

COLLIER ROAD UC	BR NO 39-0224 R/L
PREPARE CONCRETE BRIDGE DECK SURFACE	12,391 SQFT
TREAT BRIDGE DECK	12,391 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	139 GAL

QUANTITIES

SOUTH AVENUE OCC	BR NO 39-0146
BRIDGE REMOVAL (PORTION)	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE	2.4 CY
CLEAN EXPANSION JOINT	140 LF
JOINT SEAL (MR 1/2")	70 LF
JOINT SEAL (MR 1")	70 LF
BAR REINFORCING STEEL (BRIDGE)	146 LB



SOUTH AVENUE OVERCROSSING

Br No. 39-0146, Mer, Route 99, PM M33.53
1"=20'

DESIGN ENGINEER
10-09-15

DESIGN	BY QUANG VO	CHECKED A. FRANK	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY DAVID KISH	CHECKED A. FRANK	LAYOUT	BY DAVID KISH
QUANTITIES	BY QUANG VO	CHECKED A. FRANK	SPECIFICATIONS	BY JARVIS MAHE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

**ROUTE 99 BRIDGES
GENERAL PLAN NO. 6**

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



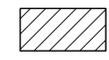
UNIT: 3488
PROJECT NUMBER & PHASE: 1015000066 1
CONTRACT NO.: 10-1E2701

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
3-18-15 4-16-15 4-16-15 4-30-15	6	11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	24	28
			10-09-15	REGISTERED CIVIL ENGINEER DATE	
			11-16-15	PLANS APPROVAL DATE	
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NOTES: (APPLY TO THIS SHEET ONLY)



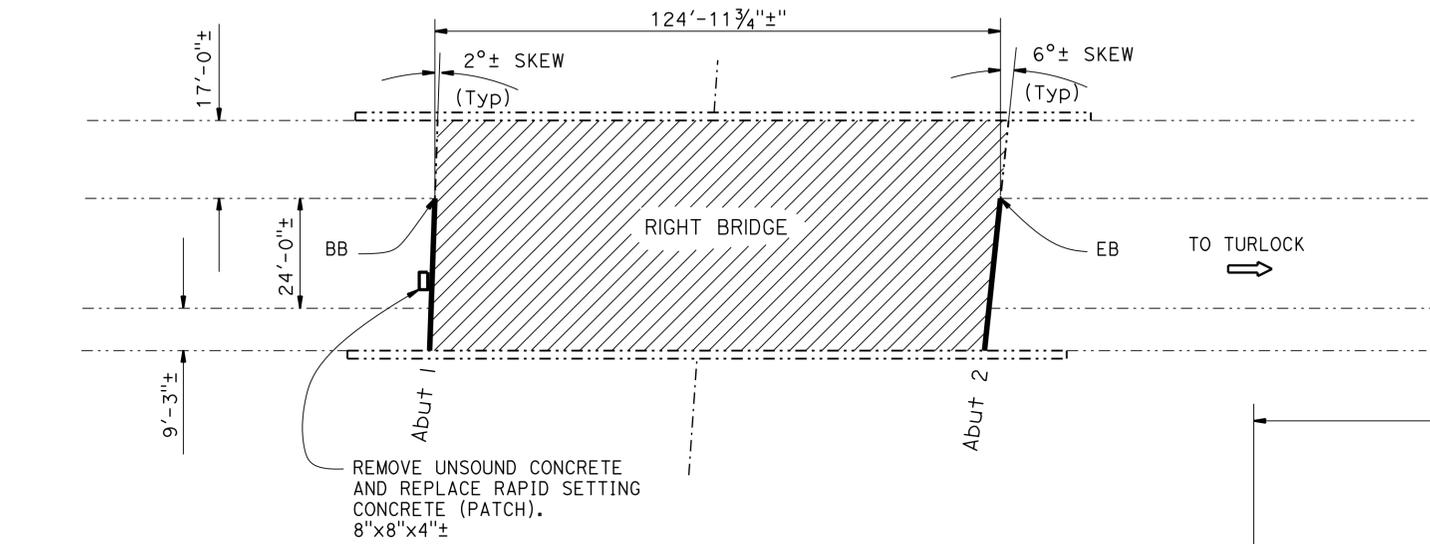
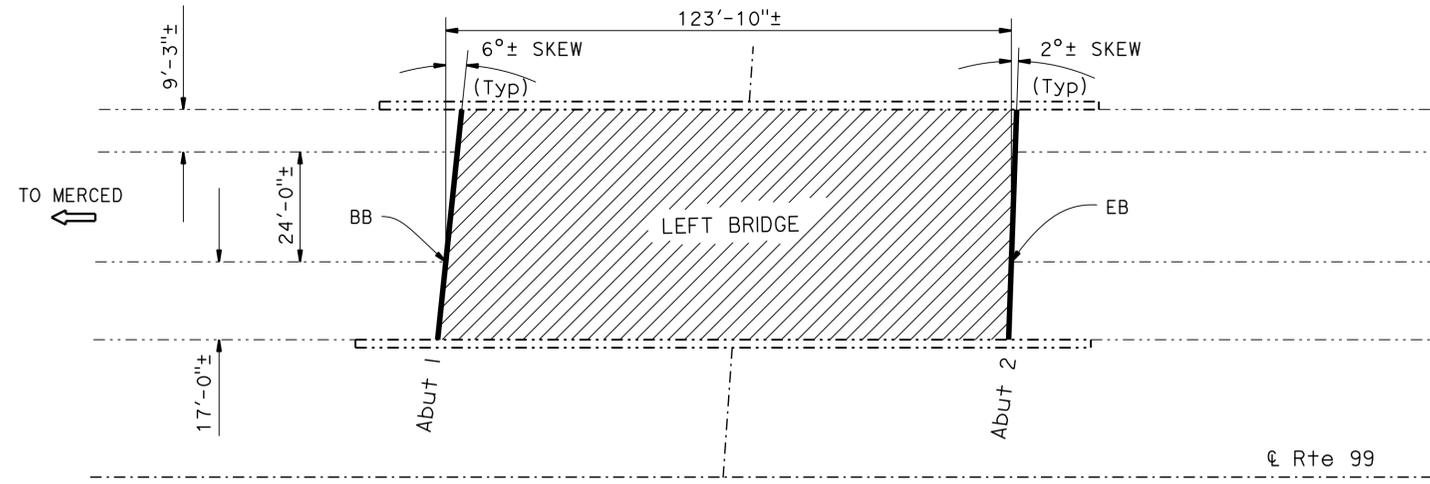
Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.



Indicates limits of clean expansion joint and install new joint seal. For details, see "JOINT SEAL DETAILS" sheet.



Indicates limits of remove 2"± accumulated debris prior to concrete bridge deck surface preparation and treat bridge deck with methacrylate.



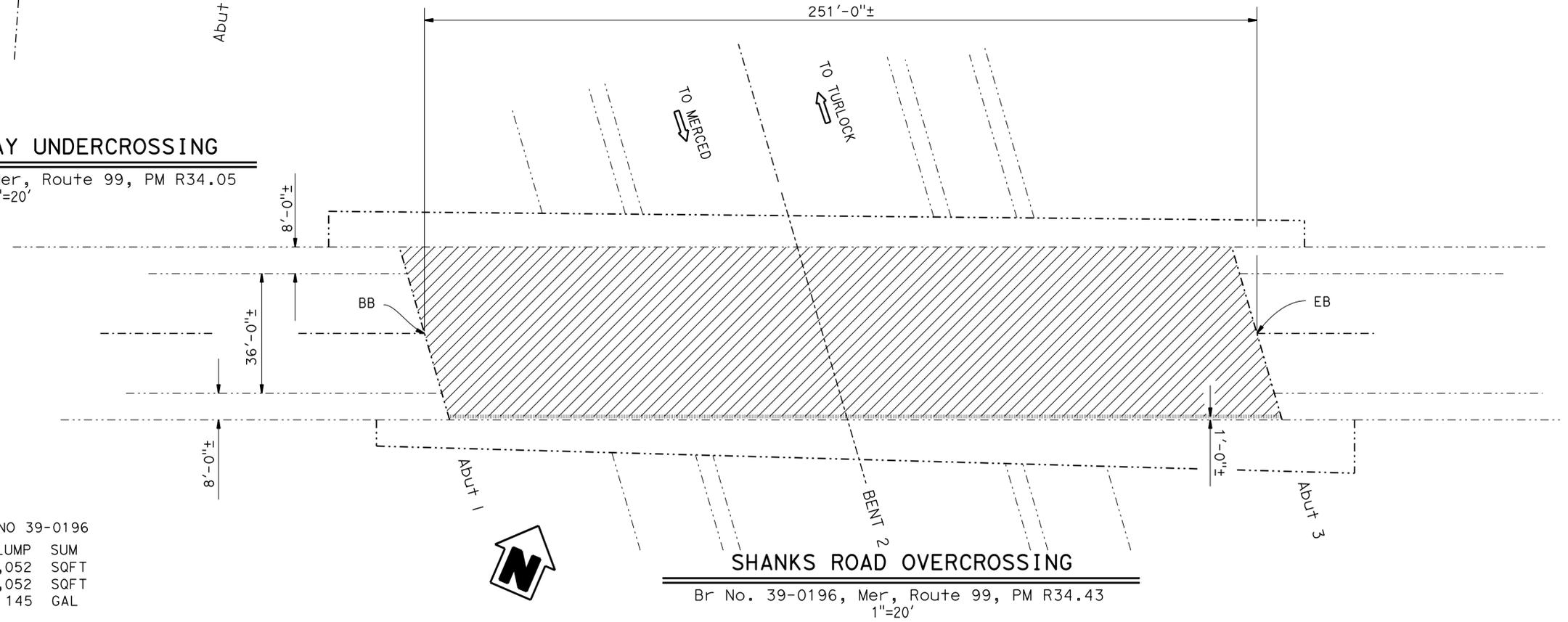
EL CAPITAN WAY UNDERCROSSING
 Br No. 39-0148R/L, Mer, Route 99, PM R34.05
 1"=20'

QUANTITIES

EL CAPITAN WAY UC	BR NO 39-0148 R/L
PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	0.2 CF
REMOVE UNSOUND CONCRETE	0.2 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	12,858 SQFT
TREAT BRIDGE DECK	12,858 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	143 GAL
CLEAN EXPANSION JOINT	172 LF
JOINT SEAL (MR 1/2")	172 LF

QUANTITIES

SHANKS ROAD OC	BR NO 39-0196
REMOVE DEBRIS	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	13,052 SQFT
TREAT BRIDGE DECK	13,052 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	145 GAL



SHANKS ROAD OVERCROSSING
 Br No. 39-0196, Mer, Route 99, PM R34.43
 1"=20'

Matthew W. Lee
 DESIGN ENGINEER 10-09-15

DESIGN	BY QUANG VO	CHECKED A. FRANK
DETAILS	BY DAVID KISH	CHECKED A. FRANK
QUANTITIES	BY QUANG VO	CHECKED A. FRANK

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
LAYOUT	BY DAVID KISH
SPECIFICATIONS	BY JARVIS MAHE
	PLANS AND SPECS COMPARED JARVIS MAHE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

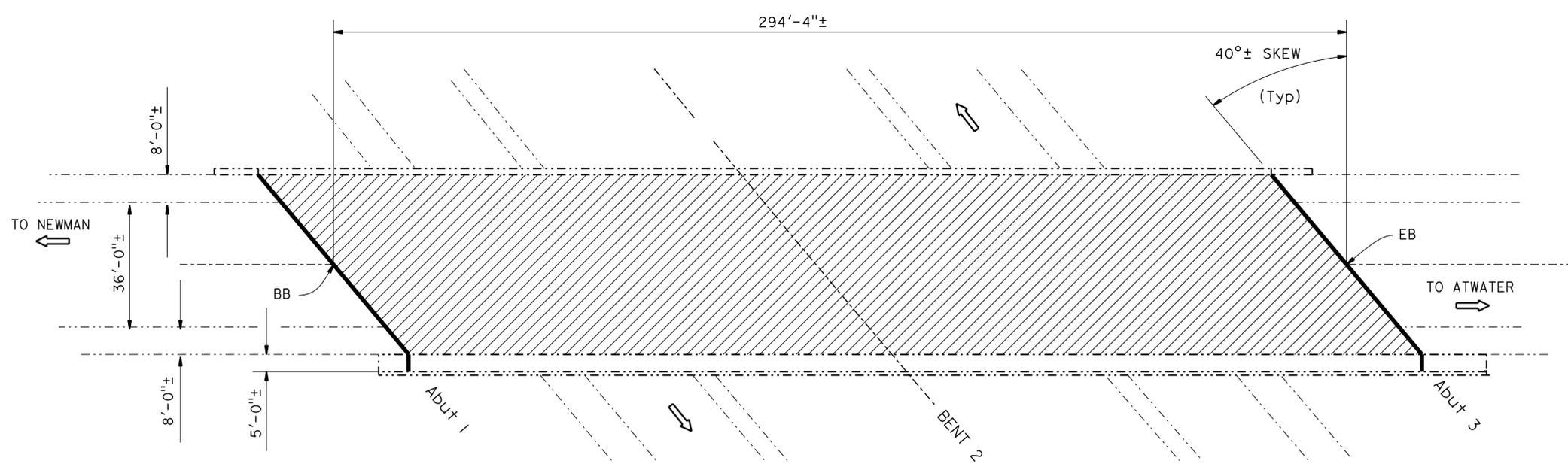
DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

**ROUTE 99 BRIDGES
 GENERAL PLAN NO. 7**

USERNAME => s120300 DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 13:58

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	25	28
			10-09-15	DATE	
			11-16-15	PLANS APPROVAL DATE	
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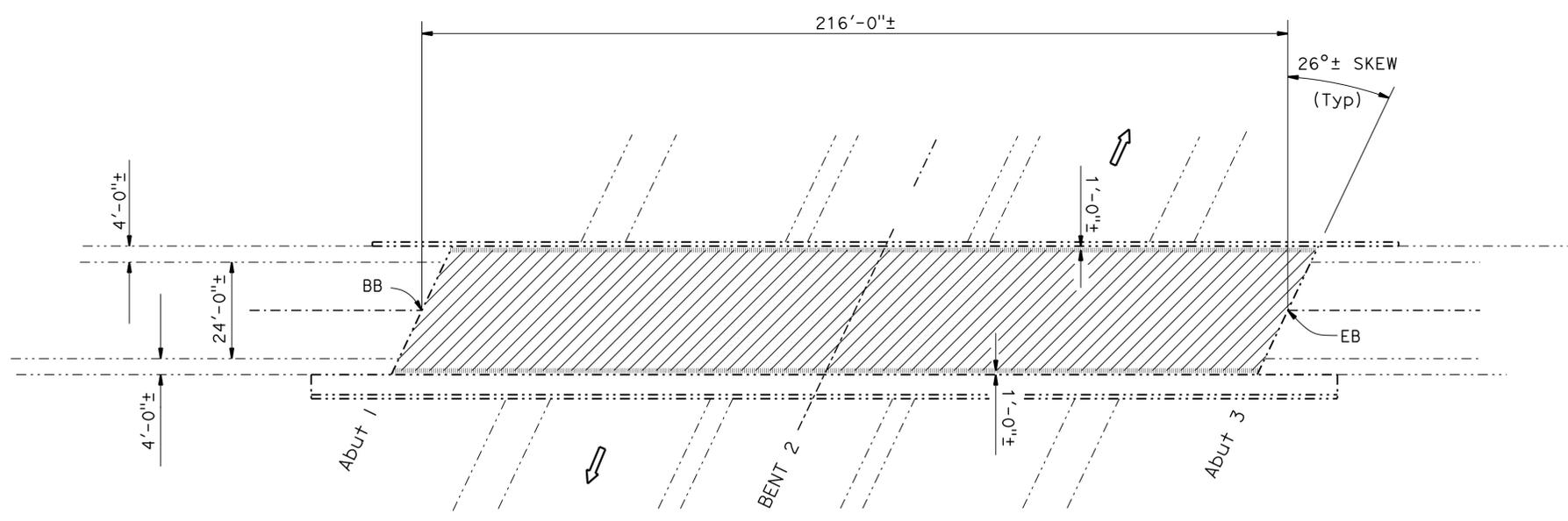
BRADBURY ROAD OVERCROSSING

Br No. 39-0149, Mer, Route 99, PM R35.56
1"=20'

QUANTITIES

BRADBURY ROAD OC	BR NO 39-0149
PREPARE CONCRETE BRIDGE DECK SURFACE	15,305 SQFT
TREAT BRIDGE DECK	15,305 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	170 GAL
CLEAN EXPANSION JOINT	150 LF
JOINT SEAL (MR 2")	150 LF

- NOTES: (APPLY TO THIS SHEET ONLY)
- Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.
 - Indicates limits of clean expansion joint and install new joint seal. For details, see "JOINT SEAL DETAILS NO. 2" sheet.
 - Indicates limits of remove 2"± accumulated debris prior to concrete bridge deck surface preparation and treat bridge deck with methacrylate.



GRIFFITH ROAD OVERCROSSING

Br No. 39-0192, Mer, Route 99, PM R36.70
1"=20'

QUANTITIES

GRIFFITH ROAD OC	BR NO 39-0192
PUBLIC SAFETY PLAN	LUMP SUM
REMOVE DEBRIS	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	6,912 SQFT
TREAT BRIDGE DECK	6,912 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	77 GAL

DESIGN ENGINEER 10-09-15

DESIGN	BY QUANG VO	CHECKED A. FRANK
DETAILS	BY DAVID KISH	CHECKED A. FRANK
QUANTITIES	BY QUANG VO	CHECKED A. FRANK

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
LAYOUT	BY DAVID KISH
SPECIFICATIONS	BY JARVIS MAHE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

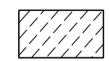
DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 99 BRIDGES GENERAL PLAN NO. 8

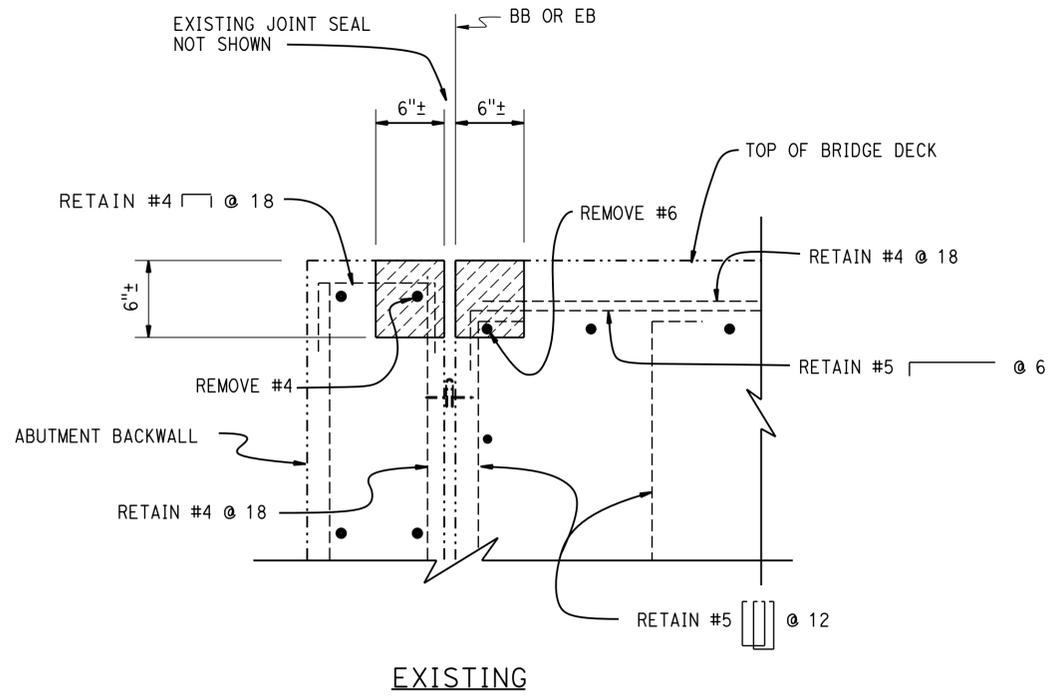
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	26	28
			10-09-15	REGISTERED CIVIL ENGINEER DATE	
			11-16-15	PLANS APPROVAL DATE	
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NOTES: (APPLY TO THIS SHEET ONLY)

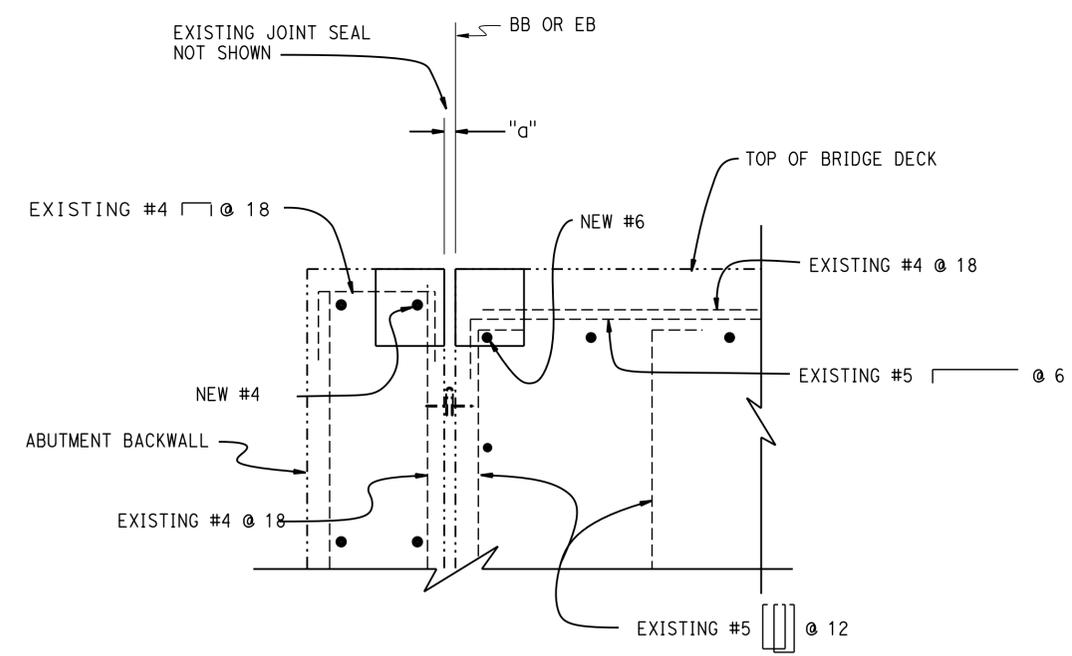


Indicates limits of remove existing concrete and joint seal. Retain existing reinforcing steel as noted.

"d" Reconstructed gap width to match existing gap



EXISTING



RECONSTRUCTION

SECTION A-A

Br No. 39-0146
3/4" = 1'-0"

DESIGN	BY QUANG VO	CHECKED A. FRANK
DETAILS	BY DAVID KISH	CHECKED A. FRANK
QUANTITIES	BY QUANG VO	CHECKED A. FRANK

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

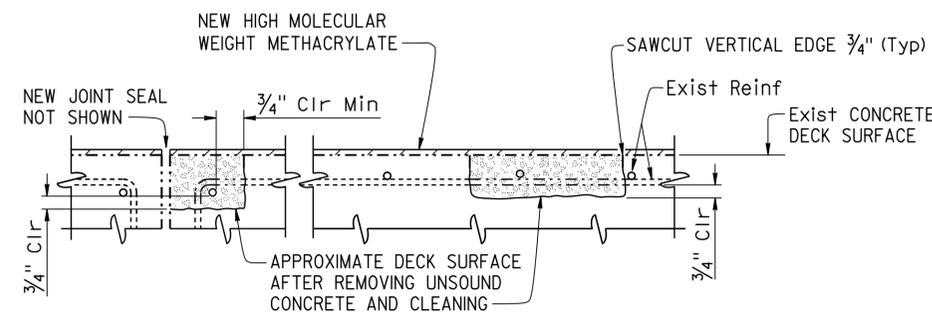
ROUTE 99 BRIDGES
JOINT SEAL DETAILS NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	27	28

REGISTERED CIVIL ENGINEER **QUANG M. VO** No. C 055211 Exp. 6-30-16
 DATE: 10-09-15
 PLANS APPROVAL DATE: 11-16-15
 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.

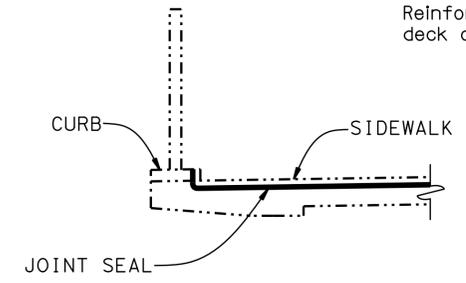
**GENERAL NOTES
LOAD FACTOR DESIGN**

DESIGN: BRIDGE DESIGN SPECIFICATIONS (1996 AASHTO with Interims and Revisions by CALTRANS)
 DEAD LOAD: Includes 35 psf for future wearing surface.
 LIVE LOADING: HS20-44 and alternative.
 REINFORCED CONCRETE: $f_y = 60$ ksi, $f'_c = 3.6$ ksi, $n = 8$



JOINT AND DECK REPAIR DETAIL

Note: Locations to be determined by the Engineer. Reinforcement may be encountered during deck concrete removal.
 NO SCALE



BARRIER RAIL

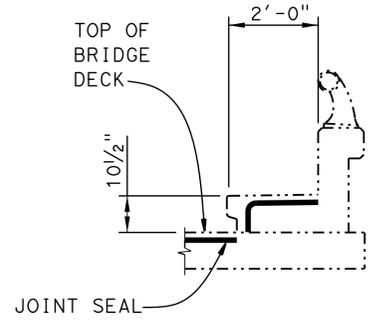
JOINT SEAL AT SIDEWALK DETAIL 2

Br. No. 49-0161

JOINT SEAL TABLE

BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (in)	APPROXIMATE LENGTH (Ft)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (in)
		Abut 1	Abut 2				
ROUTE 99/140 SEPARATION	39-0140L	Abut 1	BB	1/2	24	NO	-
		Abut 2	EB	1/2	24	NO	-
"R" STREET UNDERCROSSING	39-0137R	Abut 1	BB	1/2	24	NO	12
		Abut 2	EB	1/2	38	NO	12
BEAR CREEK	39-0132L	Abut 1	BB	2	59*	NO	12
		Abut 8	EB	2	59*	NO	12
SOUTH AVENUE OVERCROSSING	39-0146	Abut 1	BW	1	70*	NO	12
		Abut 3	BW	1/2	70*	NO	12
EL CAPITAN WAY UNDERCROSSING	39-0148L	Abut 1	BB	1/2	52*	NO	12
		Abut 2	EB	1/2	52*	NO	12
EL CAPITAN WAY UNDERCROSSING	39-0148R	Abut 1	BB	1/2	34*	NO	12
		Abut 2	EB	1/2	34*	NO	12
BRADBURY ROAD OVERCROSSING	39-0149	Abut 1	BW	2	75	NO	12
		Abut 3	BW	2	75	NO	12

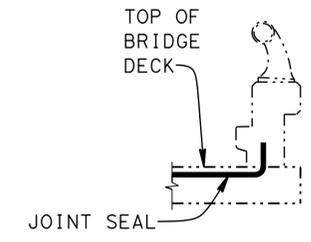
LEGEND:
 BW - BACKWALL
 BB - Paving Notch at beginning of bridge
 EB - Paving Notch at end of bridge
 * - Joint seal Type B only



BARRIER RAIL

JOINT SEAL AT SIDEWALK DETAIL 1

Br. No. 44-0139L



BARRIER RAIL

JOINT SEAL AT LOW SIDE OF DECK

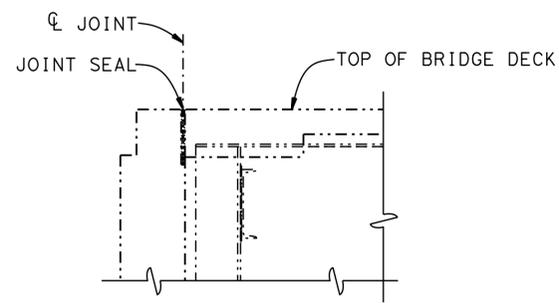
Notes: Details shown for illustration purposes only. For use only where deck joint matches the sidewalk, curb or barrier rail joint.

- The following notes apply to JOINT SEAL TYPE B:
- Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
 - 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 calculated by the Engineer.
 - W1 must be the smaller of the values determined as follows:
 - 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
 - The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.
 - Bend Type B joint seal 6" 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 **B6-21**

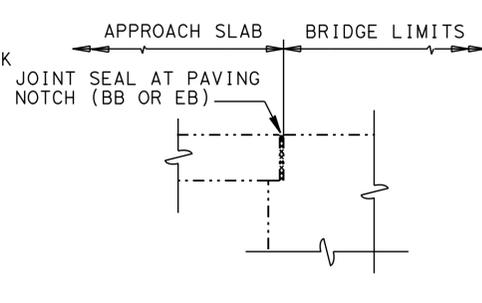
TEMPORARY DECK PLATE LOAD CRITERIA

MOMENT DEMAND/FOOT (kip-ft/ft)	BOLT SHEAR/FOOT (kip/ft)	BOLT TENSION (kip)
4	8.0	4.6

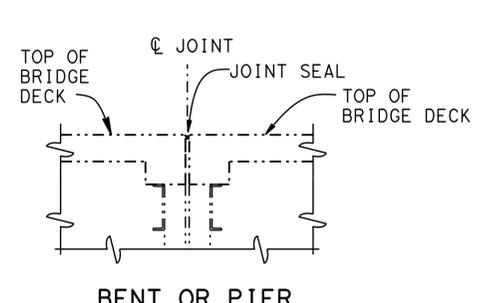
Plate deflection must not exceed $s/300$ (s = span in ft).
 Maximum anchor bolt spacing = 9".



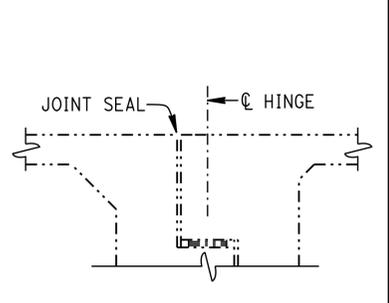
ABUTMENT WITH BACKWALL



DIAPHRAGM ABUTMENT



BENT OR PIER



HINGE

JOINT SEAL LOCATION

DESIGN	BY QUANG VO	CHECKED A. FRANK
DETAILS	BY DAVID KISH	CHECKED A. FRANK
QUANTITIES	BY QUANG VO	CHECKED A. FRANK

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

**ROUTE 99 BRIDGES
JOINT SEAL DETAILS NO. 2**

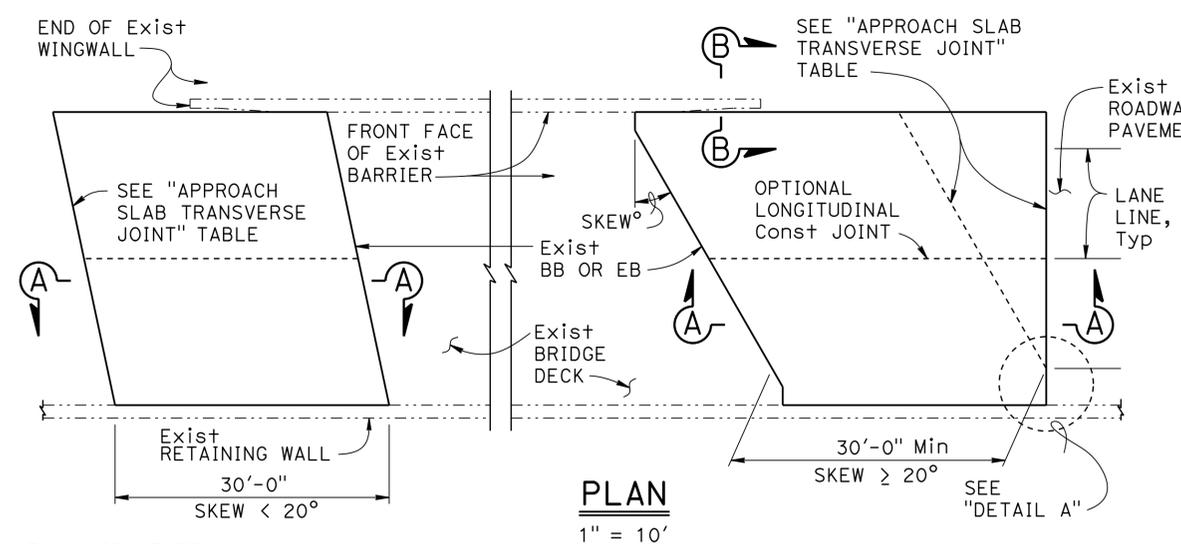
USERNAME => s120300 DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 13:58

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer	99	13.1/R36.7	28	28

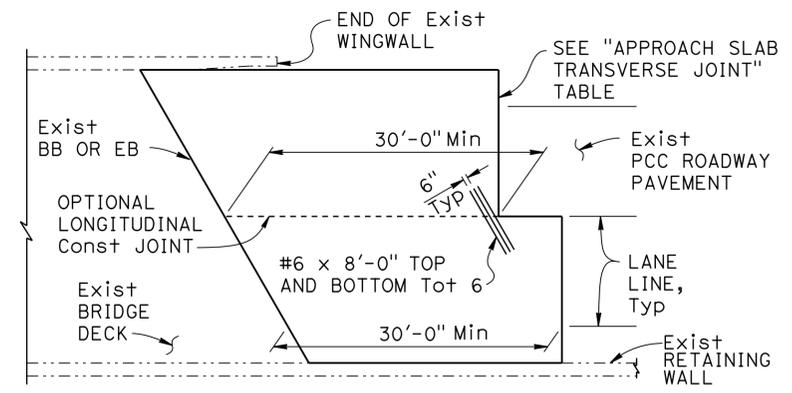
10-09-15
 REGISTERED CIVIL ENGINEER DATE
 QUANG M. VO
 No. C 055211
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

11-16-15
 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.

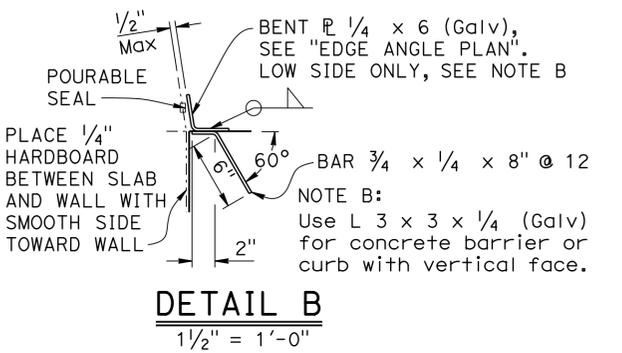
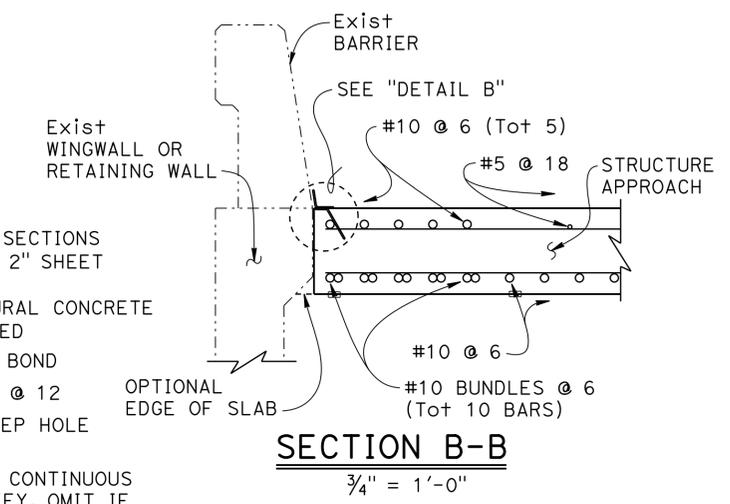
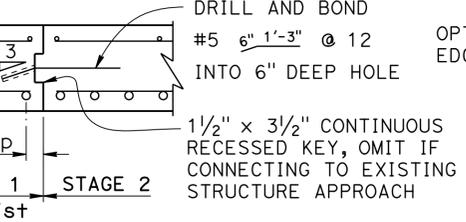
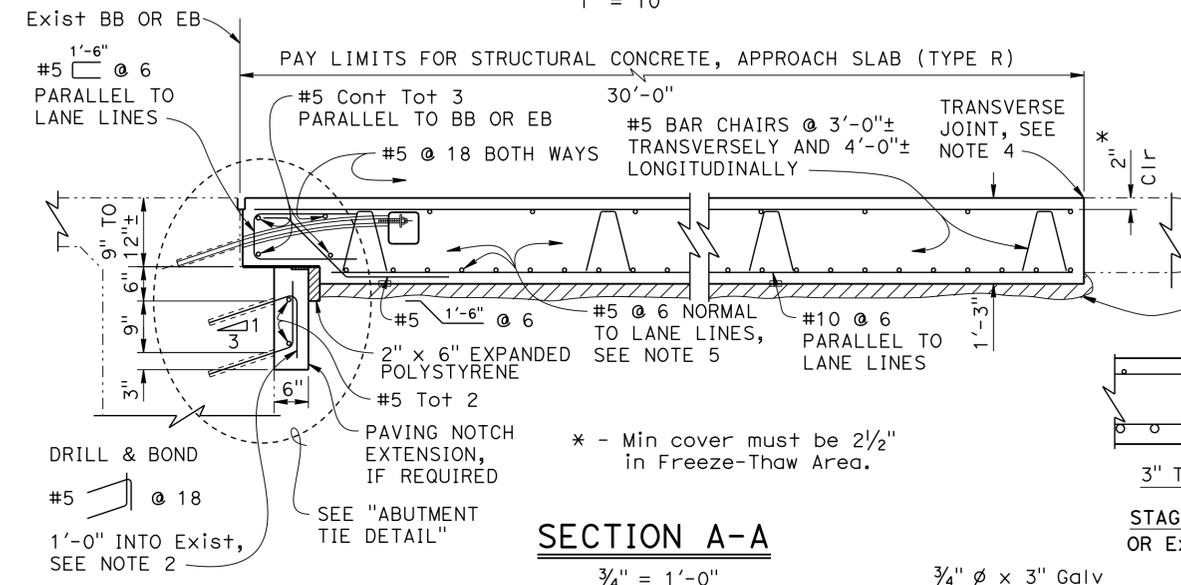


DETAIL A
No Scale



APPROACH SLAB TRANSVERSE JOINT

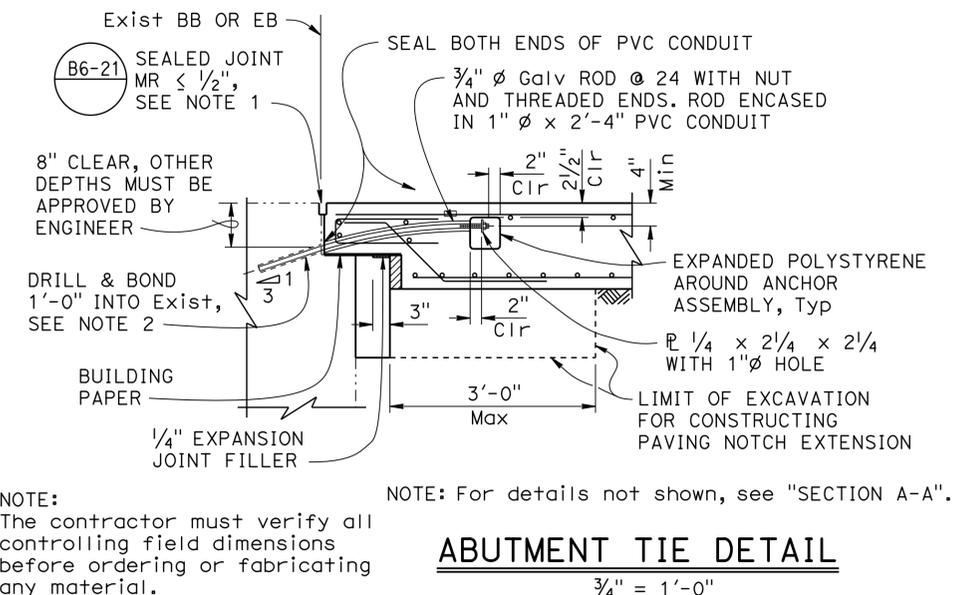
APPROACH SKEW	WITH HMA ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	PARALLEL TO BB OR EB	PARALLEL TO BB OR EB
20° - 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT LANE LINES 24' TO 36' APART, SEE "END STAGGER DETAIL"
> 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT EACH LANE LINE, SEE "END STAGGER DETAIL"



DESIGN NOTES

- DESIGN: AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014
- LIMIT STATES: Service I, Strength I & II, Extreme II and Fatigue I ($\gamma_{FAT} = 1.0$)
- DEAD LOAD: Includes 35 psf for future wearing surface
- LIVE LOAD: HL93 and permit design load
Equivalent strip width method: $W_1 = 12$ ft
Slab span: $L_1 = 24.5$ ft
- REINFORCED CONCRETE:
 $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$

- NOTES:
- For details not shown, see other plan sheets. Adjust reinforcement to clear sawcut for sealed joint.
 - Space reinforcement to avoid existing prestress anchorages and other abutment reinforcement.
 - End the plate or edge angle at beginning of barrier transition, end of wingwall, or end of structure approach as applicable.
 - Transverse joint must be a minimum of 5'-0" from an existing or constructed weakened plane joint in approach PCC roadway pavement. Refer to Standard Plans RSP P10 and RSP P14.
 - At the Contractor's option, approach slab transverse reinforcement may be placed parallel to BB or EB. Spacing of transverse reinforcement is measured along \perp roadway.
- Indicates Existing Structure



NOTE:
The contractor must verify all controlling field dimensions before ordering or fabricating any material.

NOTE: For details not shown, see "SECTION A-A".

DESIGN	BY QUANG VO	CHECKED A. FRANK
DETAILS	BY DAVID KISH	CHECKED A. FRANK
QUANTITIES	BY QUANG VO	CHECKED A. FRANK

STATE OF CALIFORNIA	DIVISION OF MAINTENANCE	BRIDGE NO.	VARIOUS
DEPARTMENT OF TRANSPORTATION	STRUCTURE MAINTENANCE DESIGN	POST MILE	VARIES

PROJECT NUMBER & PHASE: 1015000066 1	CONTRACT NO.: 10-1E2701
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ROUTE 99 BRIDGES	
STRUCTURE APPROACH TYPE R (30D)	
REVISION DATES	SHEET OF
3-18-15 4-18-15 4-18-15 4-30-15	11 11

USERNAME => s120300 DATE PLOTTED => 18-NOV-2015 TIME PLOTTED => 13:58