

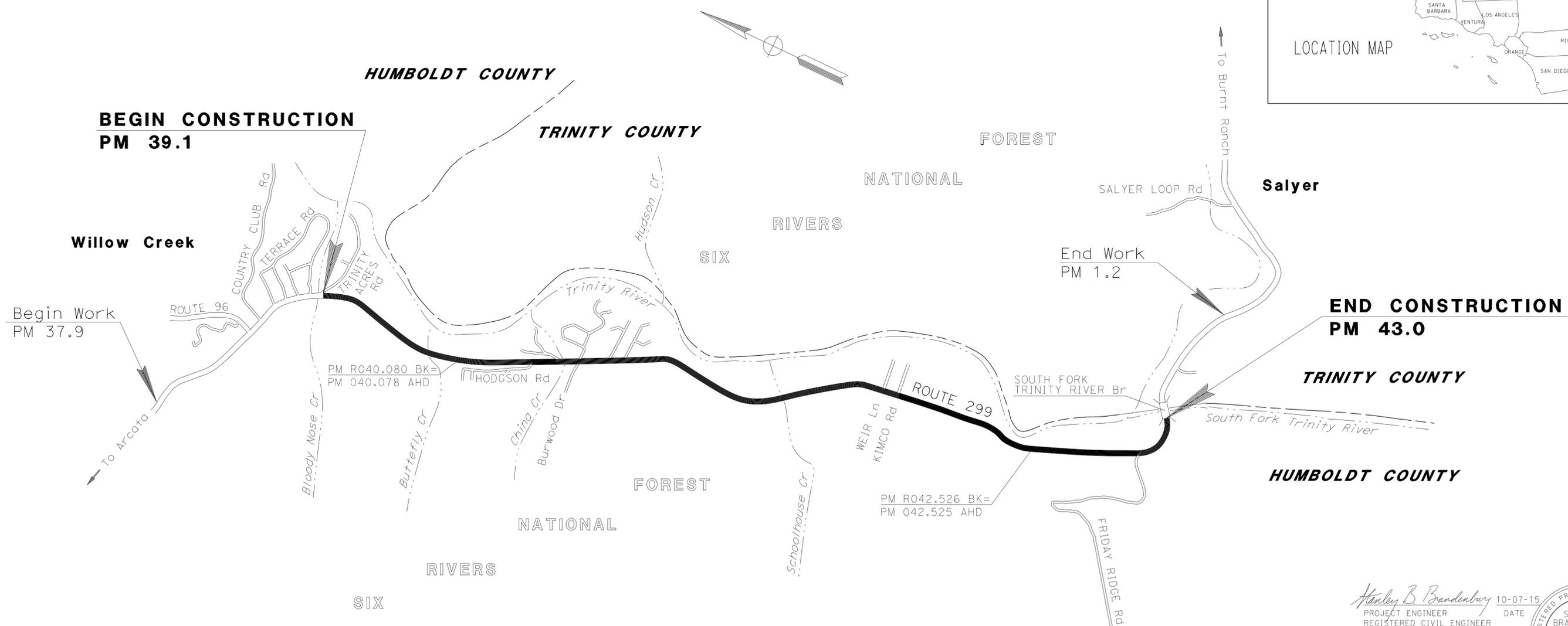
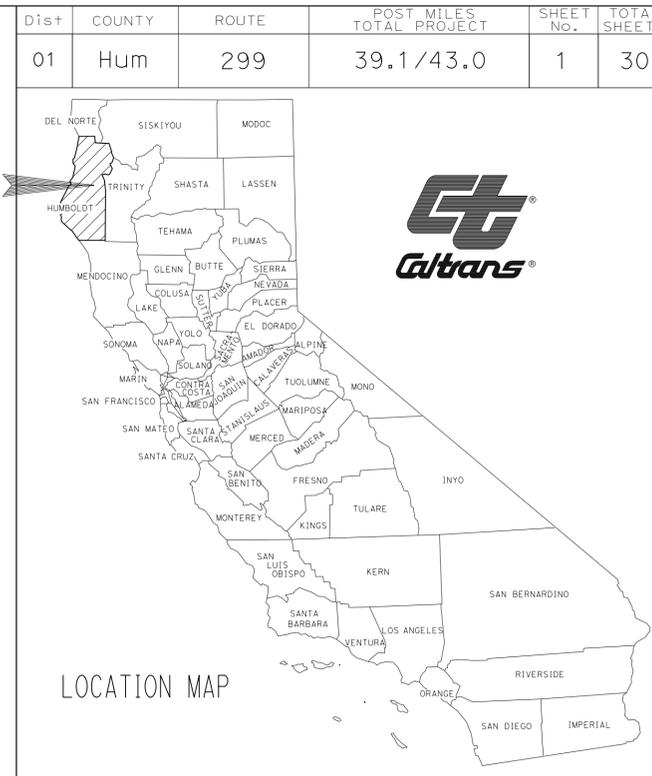
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-13	CONSTRUCTION DETAILS
14	CONSTRUCTION AREA SIGNS
15	TRAFFIC HANDLING PLAN
16-17	PAVEMENT DELINEATION QUANTITIES
18-19	SUMMARY OF QUANTITIES
20-30	REVISED AND NEW STANDARD PLANS

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 HUMBOLDT COUNTY**  
**NEAR WILLOW CREEK**  
**FROM .3 MILE EAST OF ROUTE 96**  
**TO SOUTH FORK TRINITY RIVER BRIDGE**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



P:\PROJ\01\06520\drafting\Sheets\01140001\04ab001.dgn  
 PROJECT MANAGER Tom Fitzgerald  
 DESIGN MANAGER Tom Fitzgerald

*Stanley B. Brandenburg* 10-07-15  
 PROJECT ENGINEER DATE  
 REGISTERED CIVIL ENGINEER  
 December 21, 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.



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

CONTRACT No.	<b>01-0E5204</b>
PROJECT ID	<b>0114000104</b>

LAST REVISION DATE PLOTTED => 24-DEC-2015 TIME PLOTTED => 11:18  
 00-00-00



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	3	30

REGISTERED CIVIL ENGINEER  
 DATE 10-07-15  
 December 21, 2015  
 PLANS APPROVAL DATE  
 No. C81750  
 Exp. 03-31-16  
 CIVIL  
 STATE OF CALIFORNIA

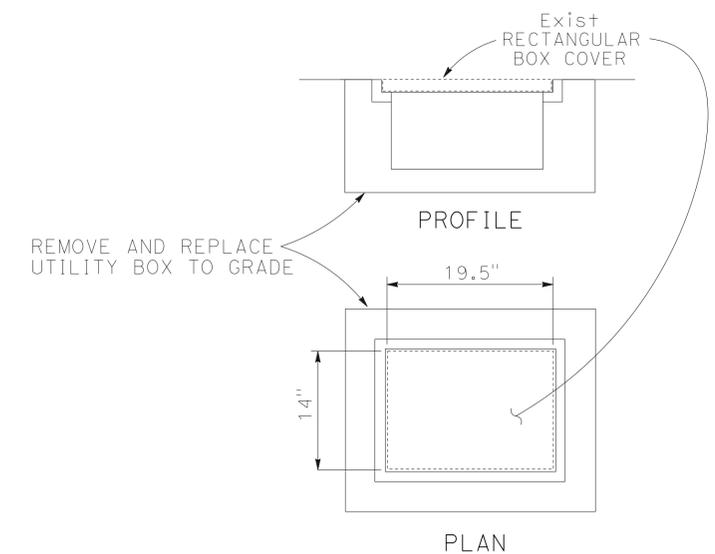
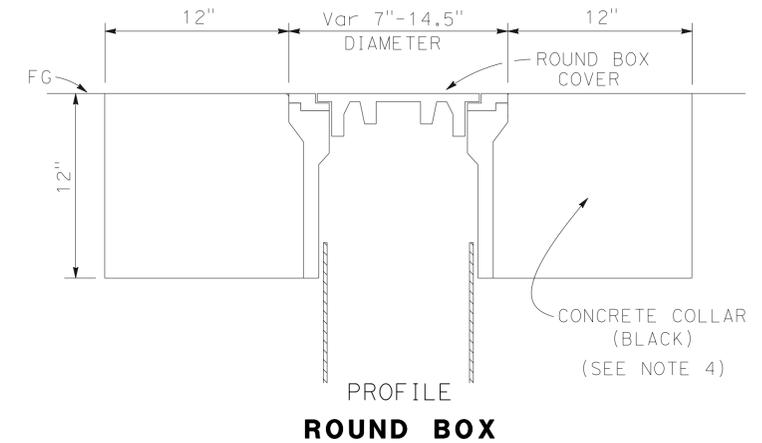
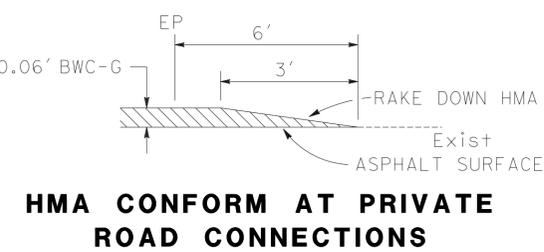
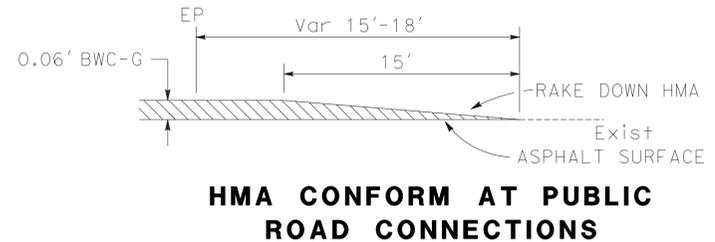
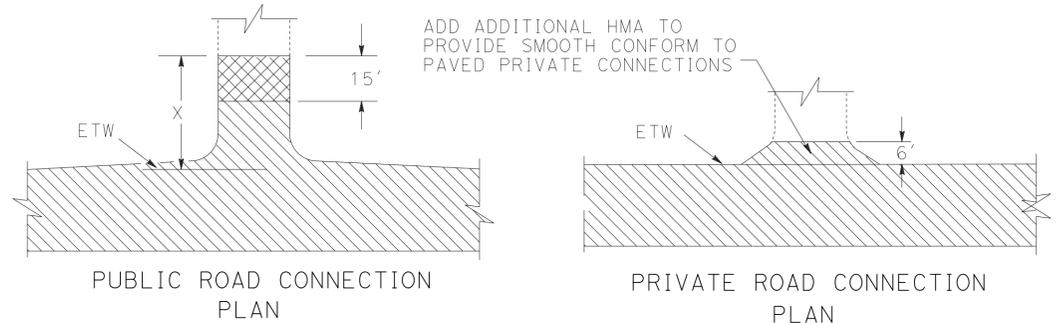
- NOTES:**
1. IN AREAS WHERE THE WIDTH OF THE EXISTING SURFACING VARIES FROM THAT SHOWN, THE CONTRACTOR SHALL VARY THE WIDTH OF THE PAVING OPERATIONS AS DIRECTED BY THE ENGINEER.
  2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
  3. EXACT LOCATIONS OF REPLACE AC SURFACING TO BE DETERMINED BY ENGINEER.

- LEGEND:**
- [Cross-hatched] LIMITS OF COLD PLANE AC PAVEMENT PRIOR TO BWC-G OVERLAY
  - [Diagonal lines /] LIMITS OF REPLACE AC SURFACING
  - [Diagonal lines \] LIMITS OF BWC-G OVERLAY
  - (X) LOCATION NUMBER OF REPLACE AC SURFACING
  - [X] ADJUST UTILITY COVER TO GRADE

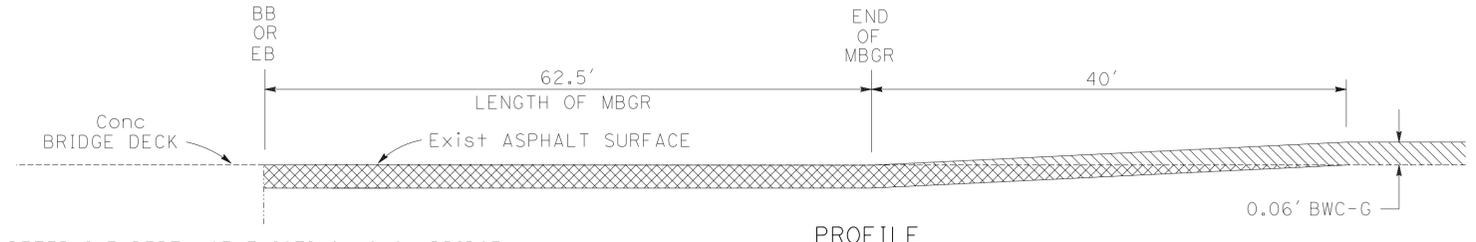
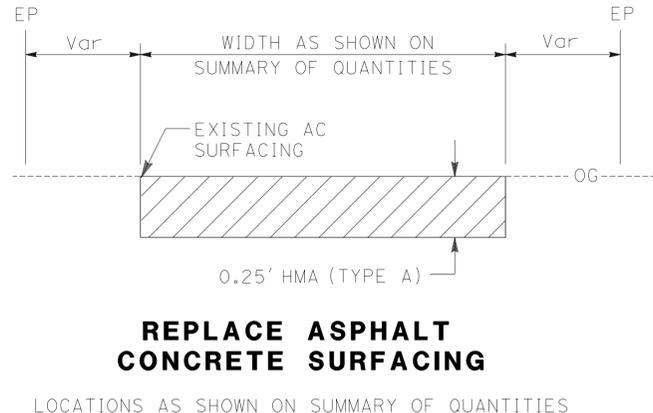
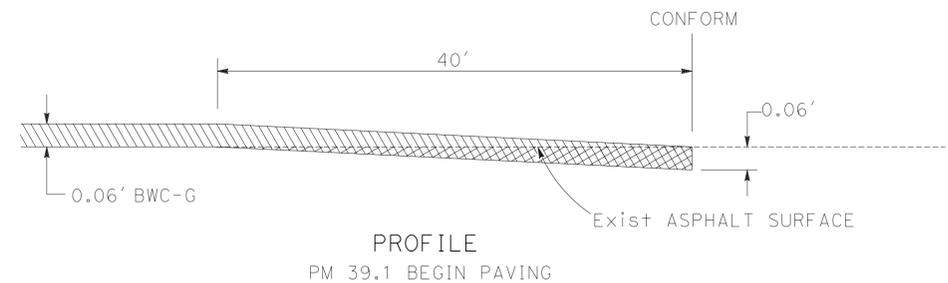
**ABBREVIATIONS:**  
 BWC-G - HMA (BONDED WEARING COURSE, GAP-GRADED)

**PUBLIC ROAD CONNECTION**

LOCATION	PM	X
		FT
CHINA CREEK ROAD	40.15 R+	18
GAMBIS DRIVE	40.34 R+	15
BURWOOD DRIVE	40.34 L+	18
ENCHANTED SPRINGS LANE	41.17 R+	16
CAMPORA DRIVE	41.67 L+	15
WEIR LANE	41.75 L+	15
MARTIN ROAD	42.87 L+	18
FRIDAY RIDGE ROAD	42.87 R+	18



**LIMITS OF COLD PLANE AC PAVEMENT AND PAVING AT ROAD CONNECTIONS**



\* DETERMINE DEPTH OF EXISTING AC ON BRIDGE APPROACH SLAB BEFORE COLD PLANE

S FORK TRINITY RIVER BRIDGE No. 04-0050

**LIMITS OF COLD PLANE AC PAVEMENT**

**CONSTRUCTION DETAILS**

NO SCALE

C-1

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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 EtCaltrans MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR T. J. FITZGERALD  
 CALCULATED/DESIGNED BY GAVIN KEATING  
 CHECKED BY STAN BRANDENBURG  
 REVISED BY DATE  
 REVISIONS:

**NOTES:**

1. PLACE SHIMS UNDER THE FRAME AND COVER ON TOP OF THE HIGHEST GRADE RING AS NEEDED SUCH THAT THE FRAME AND COVER ARE FLUSH WITH THE FINISHED GRADE OF THE STREET. THE MINIMUM SHIM HEIGHT IS 1". CONCRETE SHALL BE PLACED IN BETWEEN THE HIGHEST GRADE RING AND THE SHIMMED FRAME AND LID WHEN THE CONCRETE COLLAR IS CONSTRUCTED, IN EFFECT CREATING A 'CAST-IN-PLACE' GRADE RING OF VARYING THICKNESS.
2. SEAL ALL GRADE RINGS WITH NON-SHRINK GROUT ON BOTH INNER AND OUTER FACES OF EACH JOINT.
3. COMPLETELY DEMOLISH EXISTING CONCRETE COLLARS TO A DEPTH OF 12".
4. NO AREA AVAILABLE FOR "TEMPORARY CONCRETE WASHOUT FACILITY" WITHIN STATE RIGHT-OF-WAY. USE A "PORTABLE TEMPORARY CONCRETE WASHOUT" OR A "TEMPORARY CONCRETE WASHOUT".

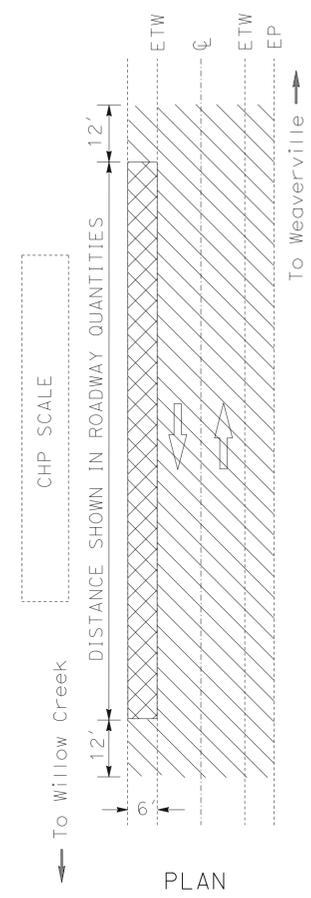
**NOTES:**

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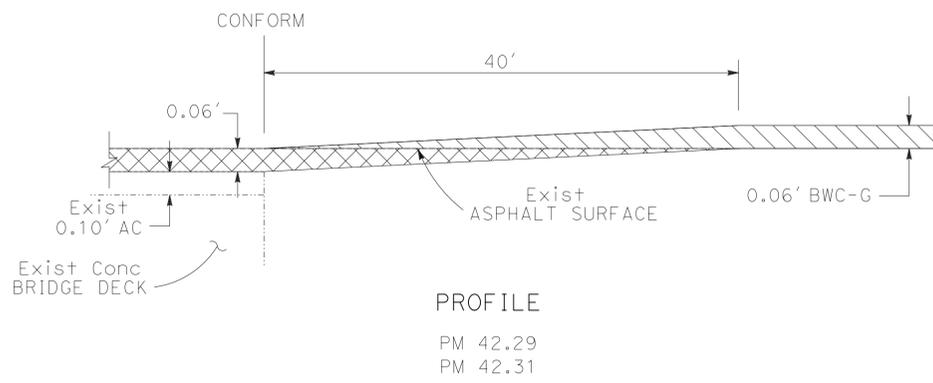
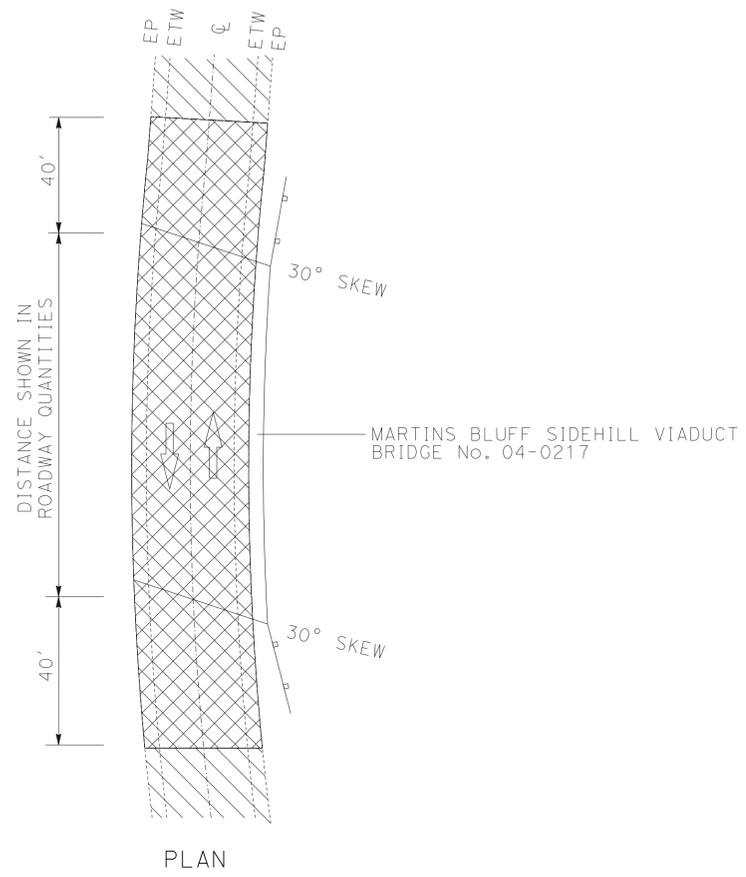
Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	HUM	299	39.1/43.0	4	30

*Stanley B. Brandenburg* 10-07-15  
 REGISTERED CIVIL ENGINEER DATE  
**December 21, 2015**  
 PLANS APPROVAL DATE

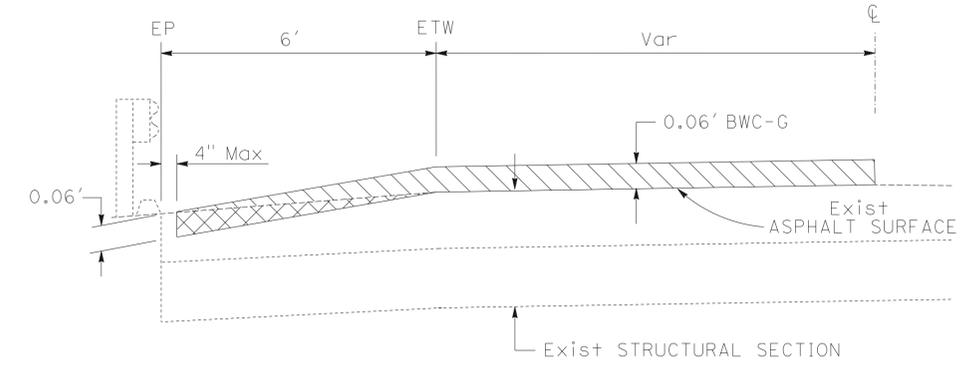
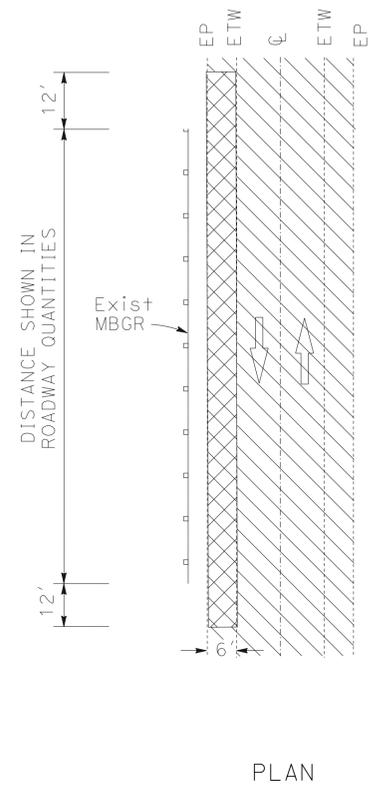
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**LIMITS OF COLD PLANE AT CHP SCALE**



**COLD PLANE AC PAVEMENT AT MARTIN BLUFF VIADUCT**



**COLD PLANE AC PAVEMENT AT MBGR**

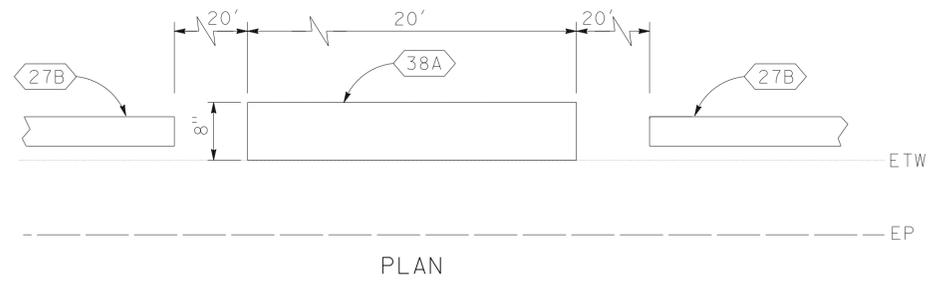
**CONSTRUCTION DETAILS**  
 NO SCALE

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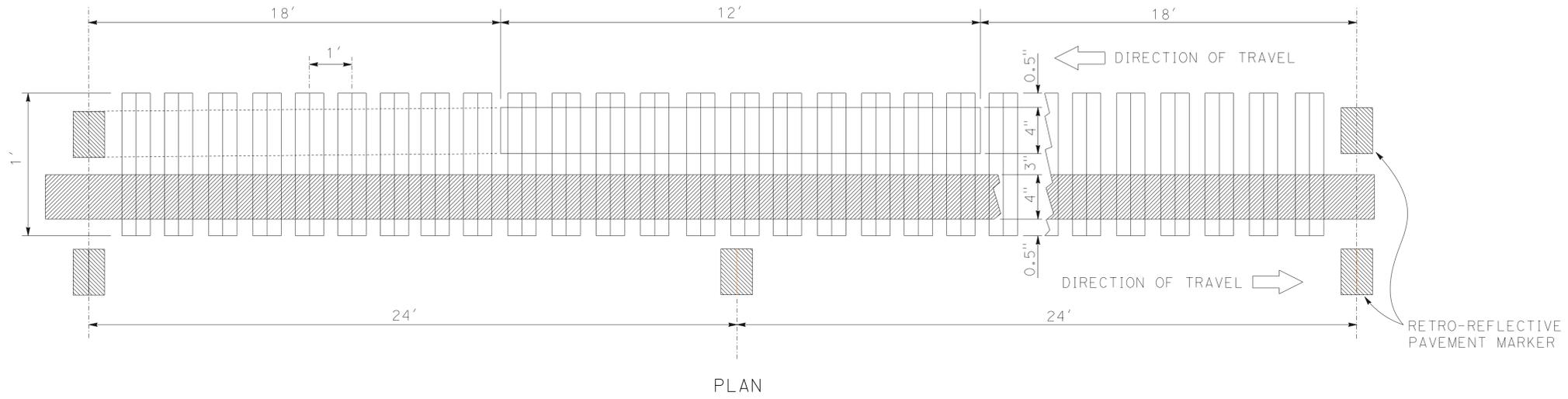
10-07-15  
 REGISTERED CIVIL ENGINEER DATE  
**December 21, 2015**  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 STANLEY BRANDENBURG  
 No. C81750  
 Exp. 03-31-16  
 CIVIL  
 STATE OF CALIFORNIA

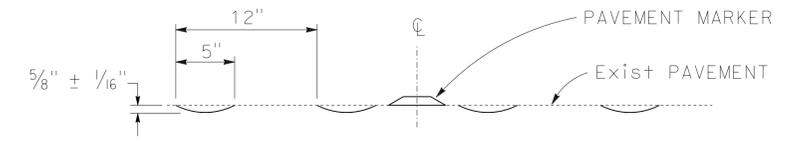
- NOTES:
- RUMBLE STRIP, AS SHOWN ON THIS PLAN SHALL NOT BE CONSTRUCTED ON BRIDGE DECKS, BRIDGE APPROACH SLABS, RAMPS, PUBLIC AND PRIVATE ROAD APPROACHES AND MINOR DRIVEWAYS.
  - FOR 'GROUND-IN RUMBLE STRIP' APPLICATIONS NOT SHOWN, SEE 2010 STANDARD PLANS, A40B.
  - EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS



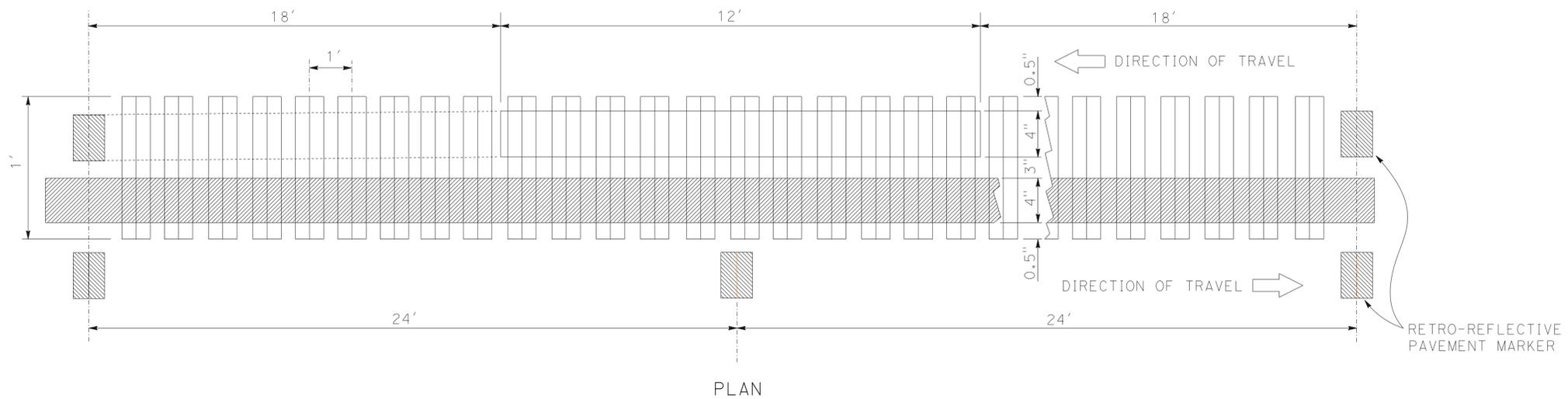
**PLAN**  
**AERIAL ENFORCEMENT MARKING**  
 EASTBOUND ROUTE 299 ONLY



**PLAN**  
**CENTERLINE GROUND-IN RUMBLE STRIP / DETAIL 32**



**ELEVATION**  
**CENTER MEDIAN AREA**



**PLAN**  
**CENTERLINE GROUND-IN RUMBLE STRIP / DETAIL 19**

**CONSTRUCTION DETAILS**  
 NO SCALE

P:\PROJ\01\0e520\draff\ing\Sheets\0114000104ga003.dgn  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Ettrans MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR T. J. FITZGERALD  
 CALCULATED/DESIGNED BY CHECKED BY  
 GAVIN KEATING STAN BRANDENBURG  
 REVISED BY DATE REVISED  
 BORDER LAST REVISED 7/2/2010

USERNAME => gavin.keating  
 DGN FILE => 10e520ga003

RELATIVE BORDER SCALE IS IN INCHES  
 0 1 2 3

UNIT 0052

PROJECT NUMBER & PHASE 0114000104

LAST REVISION | DATE PLOTTED => 24-DEC-2015  
 00-00-00 | TIME PLOTTED => 11:19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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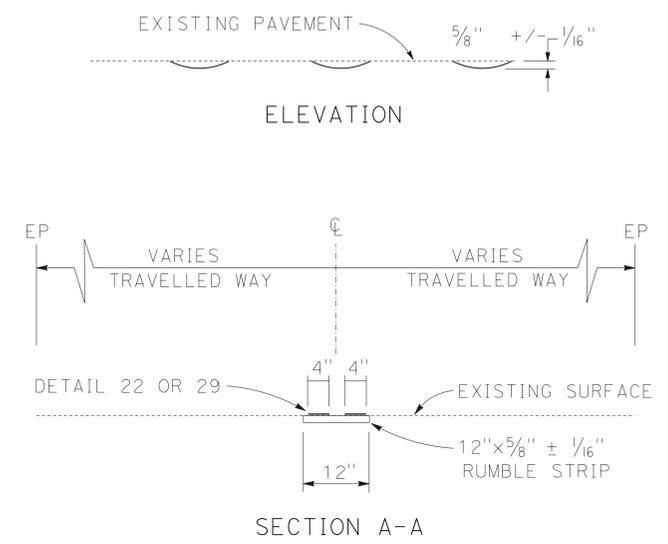
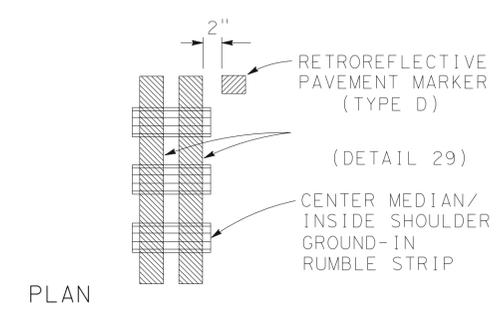
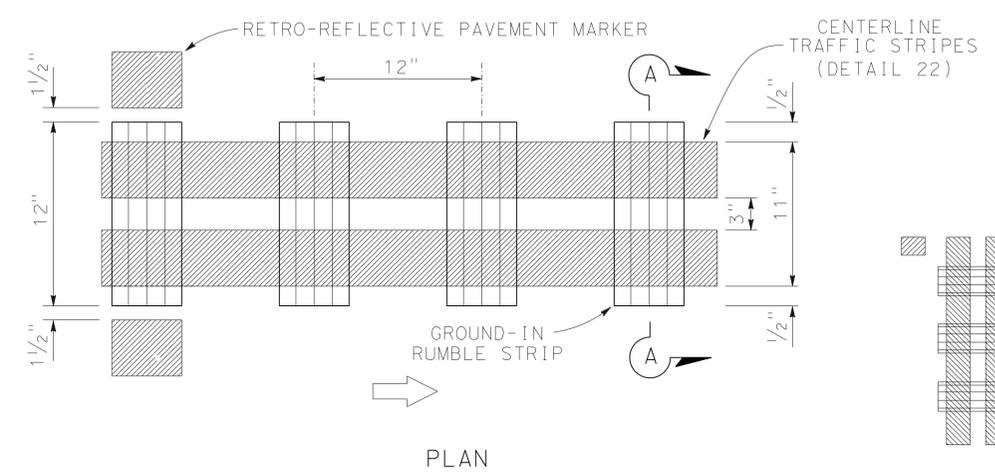
  

<i>Stanley B. Brandenburg</i> REGISTERED CIVIL ENGINEER DATE 10-07-15	
December 21, 2015 PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.	

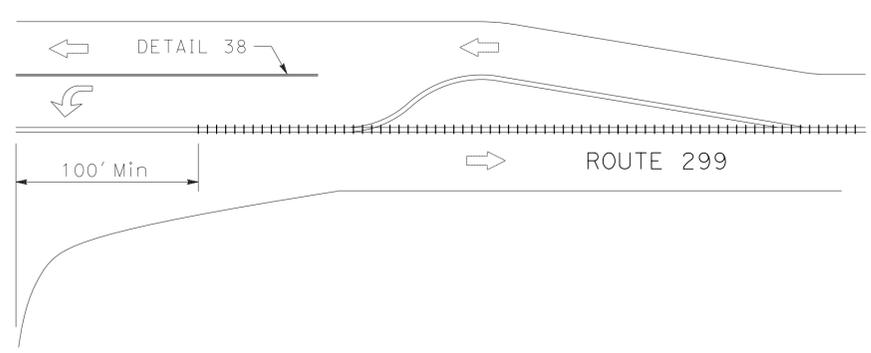
REGISTERED PROFESSIONAL ENGINEER  
 STANLEY BRANDENBURG  
 No. C81750  
 Exp. 03-31-16  
 CIVIL  
 STATE OF CALIFORNIA

- NOTES:**
1. RUMBLE STRIP, AS SHOWN ON THIS PLAN SHALL NOT BE CONSTRUCTED ON BRIDGE DECKS, BRIDGE APPROACH SLABS, RAMPS, PUBLIC AND PRIVATE ROAD APPROACHES AND MINOR DRIVEWAYS.
  2. FOR 'GROUND-IN RUMBLE STRIP' APPLICATIONS NOT SHOWN, SEE 2010 STANDARD PLANS, A40B.
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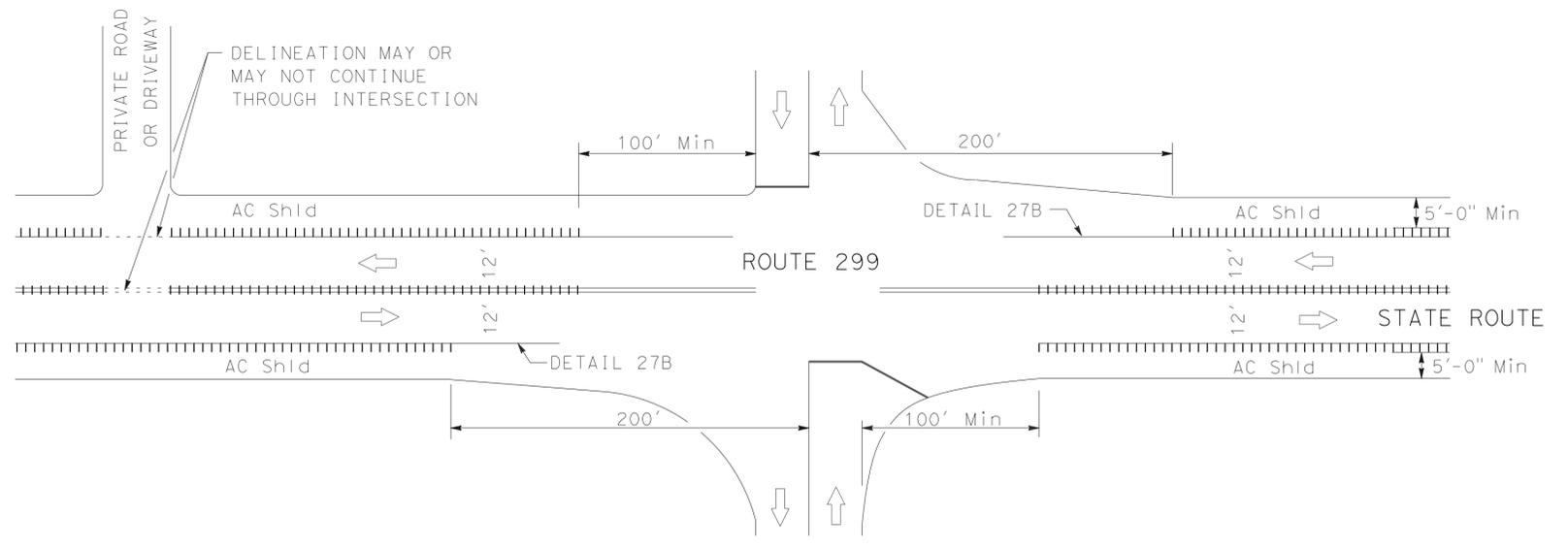
- LEGEND:**
- ➔ DIRECTION OF TRAVEL
  - |||||| RUMBLE STRIP (GROUND-IN)



**CENTERLINE RUMBLE STRIP / DETAIL 22 & 29**



**CENTERLINE RUMBLE STRIP AT LEFT TURN POCKET**



**INTERSECTING ROADS AND DRIVEWAYS**

**GROUND-IN RUMBLE STRIP TYPICALS**

**CONSTRUCTION DETAILS**

NO SCALE

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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 T. J. FITZGERALD  
 MAINTENANCE DESIGN  
 GAVIN KEATING  
 STAN BRANDENBURG  
 REVISIONS: 00-00-00 DATE PLOTTED => 24-DEC-2015 TIME PLOTTED => 11:19

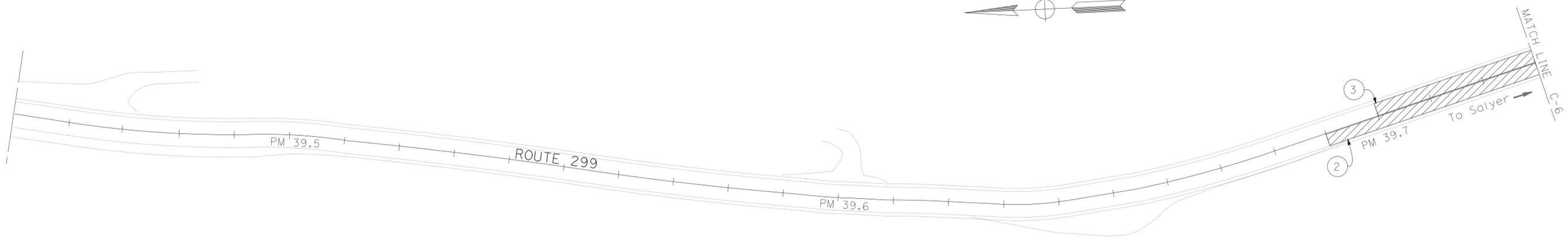
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: T. J. FITZGERALD  
 CALCULATED/DESIGNED BY: [blank]  
 CHECKED BY: [blank]  
 GAVIN KEATING  
 STAN BRANDENBURG  
 REVISED BY: [blank]  
 DATE REVISED: [blank]

**NOTES:**

1. EXACT LOCATIONS OF "REPLACE AC SURFACING" WILL BE DETERMINED BY THE ENGINEER
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	7	30

*Stanley B. Brandenburg* 10-07-15  
 REGISTERED CIVIL ENGINEER DATE  
 December 21, 2015  
 PLANS APPROVAL DATE  
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**CONSTRUCTION DETAILS**  
 NO SCALE  
**C-5**

LAST REVISION | DATE PLOTTED => 24-DEC-2015 |  
 00-00-00 | TIME PLOTTED => 11:19

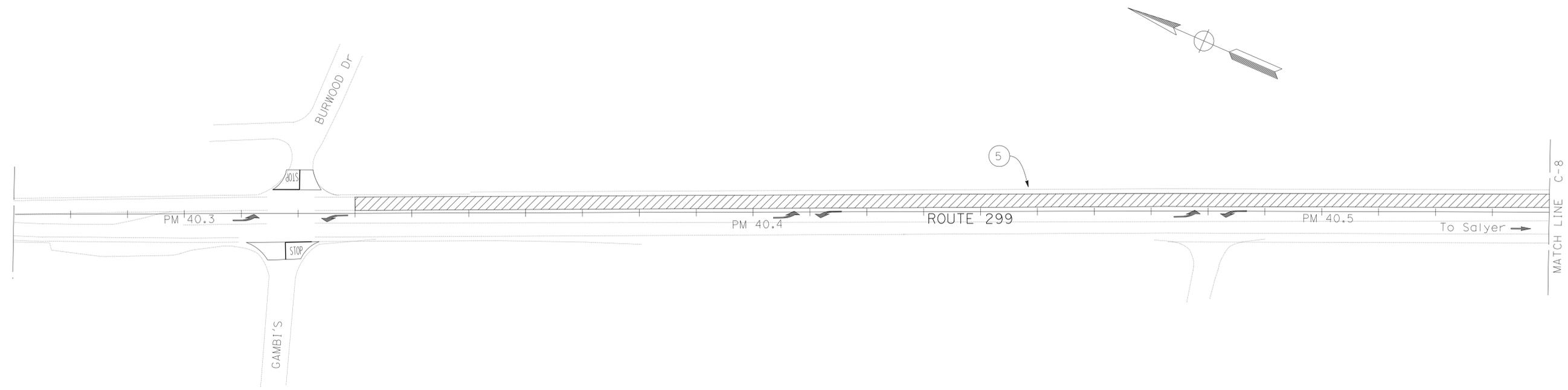
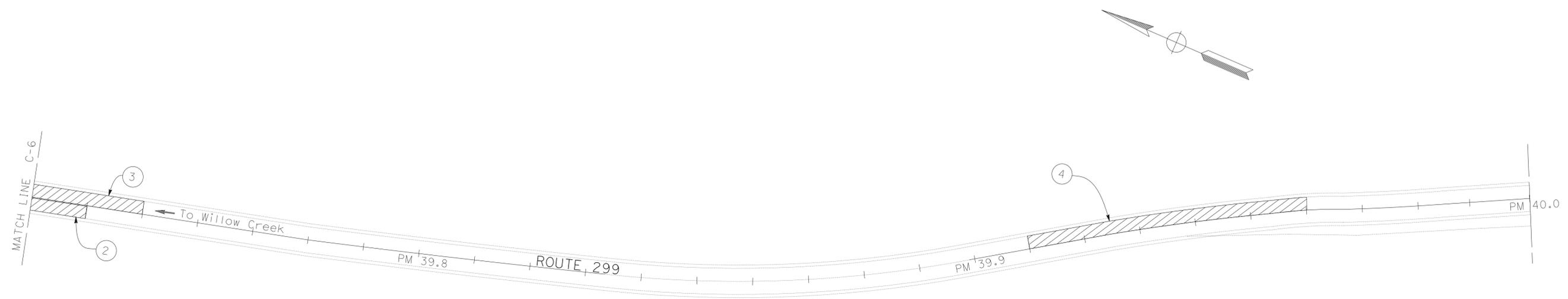
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR  
 T. J. FITZGERALD  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 GAVIN KEATING  
 STAN BRANDENBURG  
 REVISED BY  
 DATE REVISED

**NOTES:**

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	8	30

*Stanley B. Brandenburg* 10-07-15  
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**December 21, 2015**  
 PLANS APPROVAL DATE  
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**CONSTRUCTION DETAILS**  
 NO SCALE  
**C-6**

LAST REVISION | DATE PLOTTED => 24-DEC-2015  
 00-00-00 TIME PLOTTED => 11:19

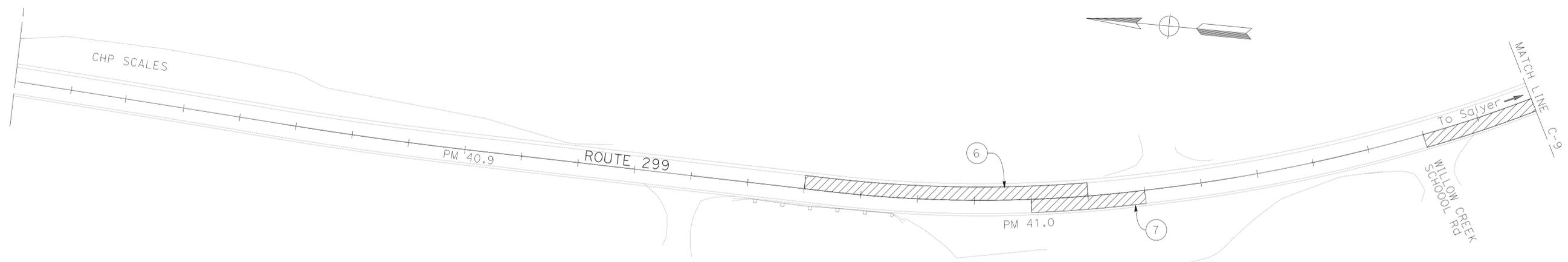
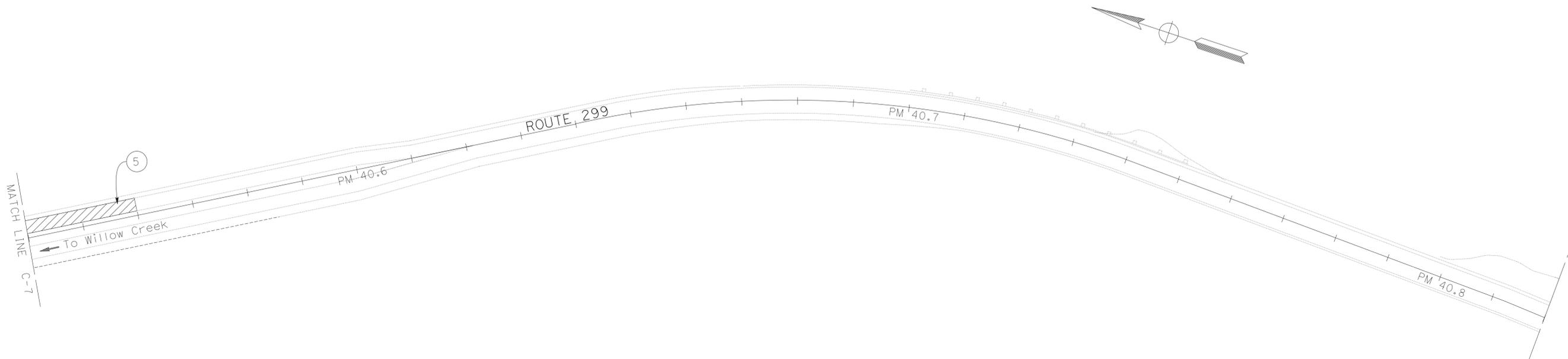
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: T. J. FITZGERALD  
 CALCULATED/DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 REVISED BY: GAVIN KEATING  
 DATE REVISED: STAN BRANDENBURG  
 DISTRICT: 01  
 COUNTY: Hum  
 ROUTE: 299  
 POST MILES TOTAL PROJECT: 39.1/43.0  
 SHEET No.: 9  
 TOTAL SHEETS: 30

**NOTES:**

1. EXACT LOCATIONS OF "REPLACE AC SURFACING" WILL BE DETERMINED BY THE ENGINEER
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	9	30

*Stanley B. Brandenburg* 10-07-15  
 REGISTERED CIVIL ENGINEER DATE  
 December 21, 2015  
 PLANS APPROVAL DATE  
 No. C81750  
 Exp. 03-31-16  
 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.



**CONSTRUCTION DETAILS**

NO SCALE

**C-7**

LAST REVISION | DATE PLOTTED => 24-DEC-2015  
 00-00-00 | TIME PLOTTED => 11:19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: T. J. FITZGERALD  
 CALCULATED/DESIGNED BY: GAVIN KEATING  
 CHECKED BY: STAN BRANDENBURG  
 REVISED BY: GAVIN KEATING  
 DATE REVISED: STAN BRANDENBURG

**NOTES:**

1. EXACT LOCATIONS OF "REPLACE AC SURFACING" WILL BE DETERMINED BY THE ENGINEER
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	10	30

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**December 21, 2015**  
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**CONSTRUCTION DETAILS**  
 NO SCALE

**C-8**

LAST REVISION | DATE PLOTTED => 24-DEC-2015  
 00-00-00 | TIME PLOTTED => 11:20

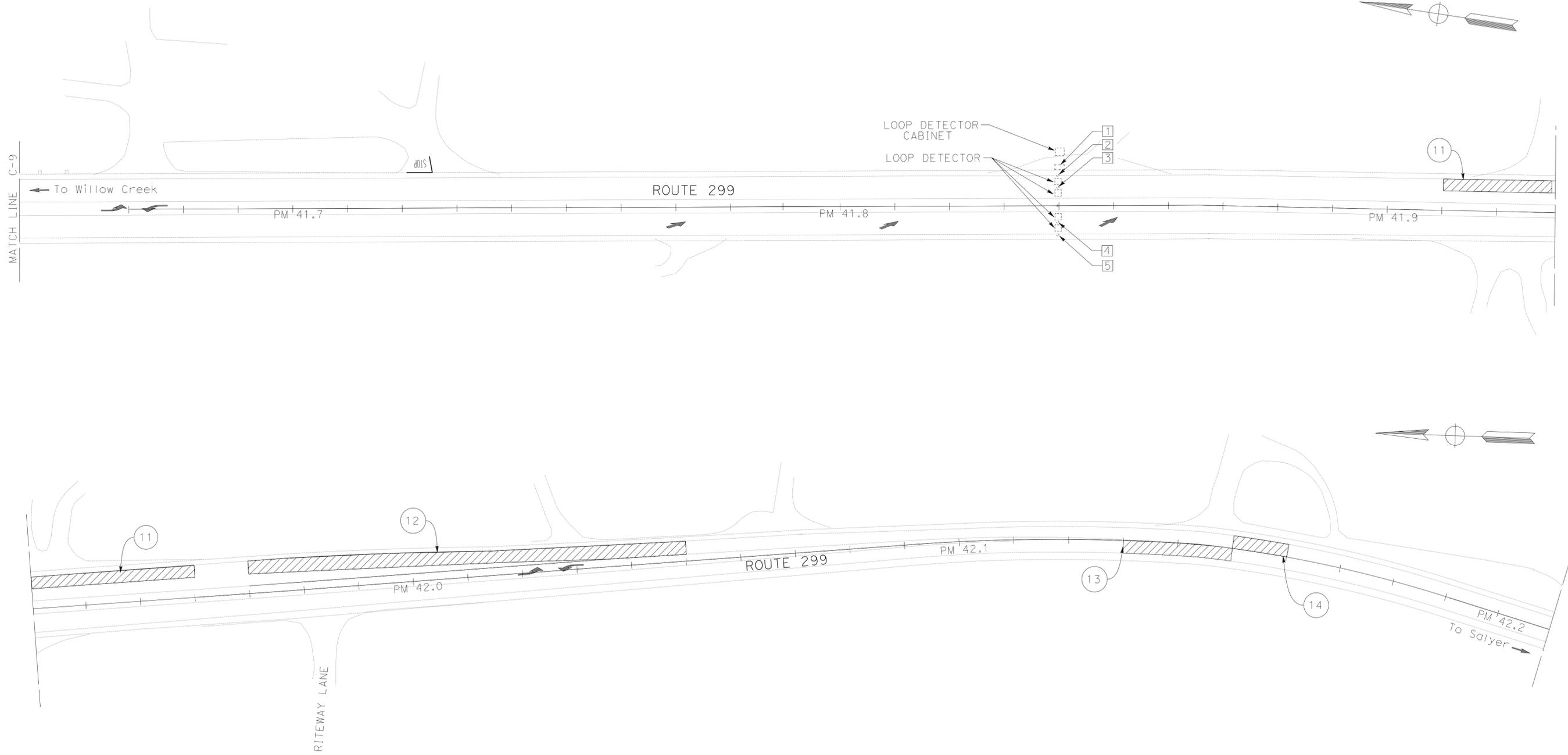
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR  
 T. J. FITZGERALD  
 CHECKED BY  
 STAN BRANDENBURG  
 DESIGNED BY  
 GAVIN KEATING  
 REVISED BY  
 GAVIN KEATING  
 DATE REVISION  
 DATE REVISION

**NOTES:**

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	11	30

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**CONSTRUCTION DETAILS**  
 NO SCALE

**C-9**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	12	30

*Stanley B. Brandenburg* 10-07-15  
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 December 21, 2015  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
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 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
<b>Caltrans</b>	T. J. FITZGERALD	CHECKED BY	STAN BRANDENBURG	
			GAVIN KEATING	
			REVISOR	DATE



**CONSTRUCTION DETAILS**  
 NO SCALE  
**C-10**

LAST REVISION | DATE PLOTTED => 24-DEC-2015  
 00-00-00 | TIME PLOTTED => 11:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	13	30

<i>Stanley B. Brandenburg</i>		10-07-15
REGISTERED CIVIL ENGINEER	DATE	
December 21, 2015		
PLANS APPROVAL DATE		

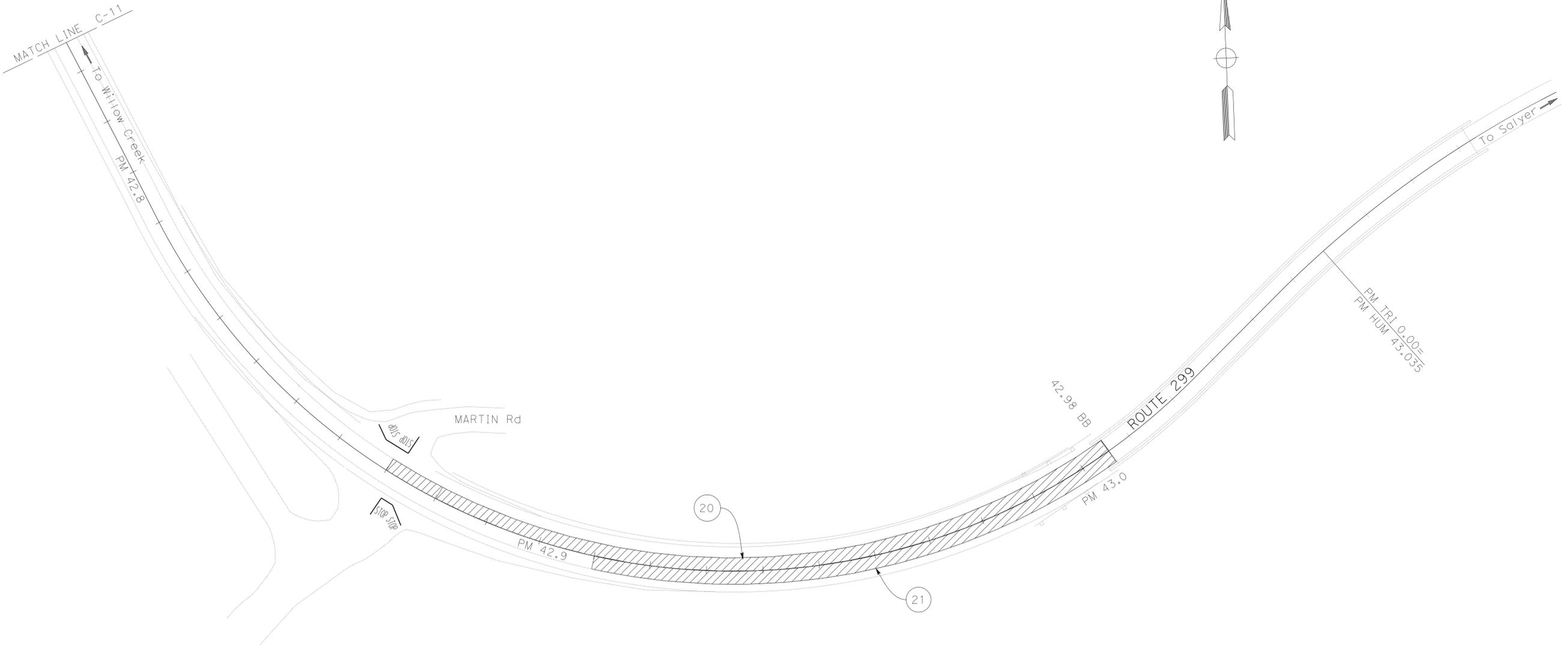
REGISTERED PROFESSIONAL ENGINEER
STANLEY BRANDENBURG
No. C81750
Exp. 03-31-16
CIVIL
STATE OF CALIFORNIA

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:

1. EXACT LOCATIONS OF "REPLACE AC SURFACING" WILL BE DETERMINED BY THE ENGINEER
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
<b>Caltrans</b>	T. J. FITZGERALD	CHECKED BY	DATE
		GAVIN KEATING	STAN BRANDENBURG



**CONSTRUCTION DETAILS**  
NO SCALE  
**C-11**

LAST REVISION | DATE PLOTTED => 24-DEC-2015  
00-00-00 | TIME PLOTTED => 11:20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: T. J. FITZGERALD  
 CALCULATED/DESIGNED BY: GAVIN KEATING  
 CHECKED BY: STAN BRANDENBURG  
 REVISED BY: GAVIN KEATING  
 DATE REVISED: STAN BRANDENBURG

**NOTES:**

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	14	30

*Stanley B. Brandenburg* 10-07-15  
 REGISTERED CIVIL ENGINEER DATE  
**December 21, 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.

**STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

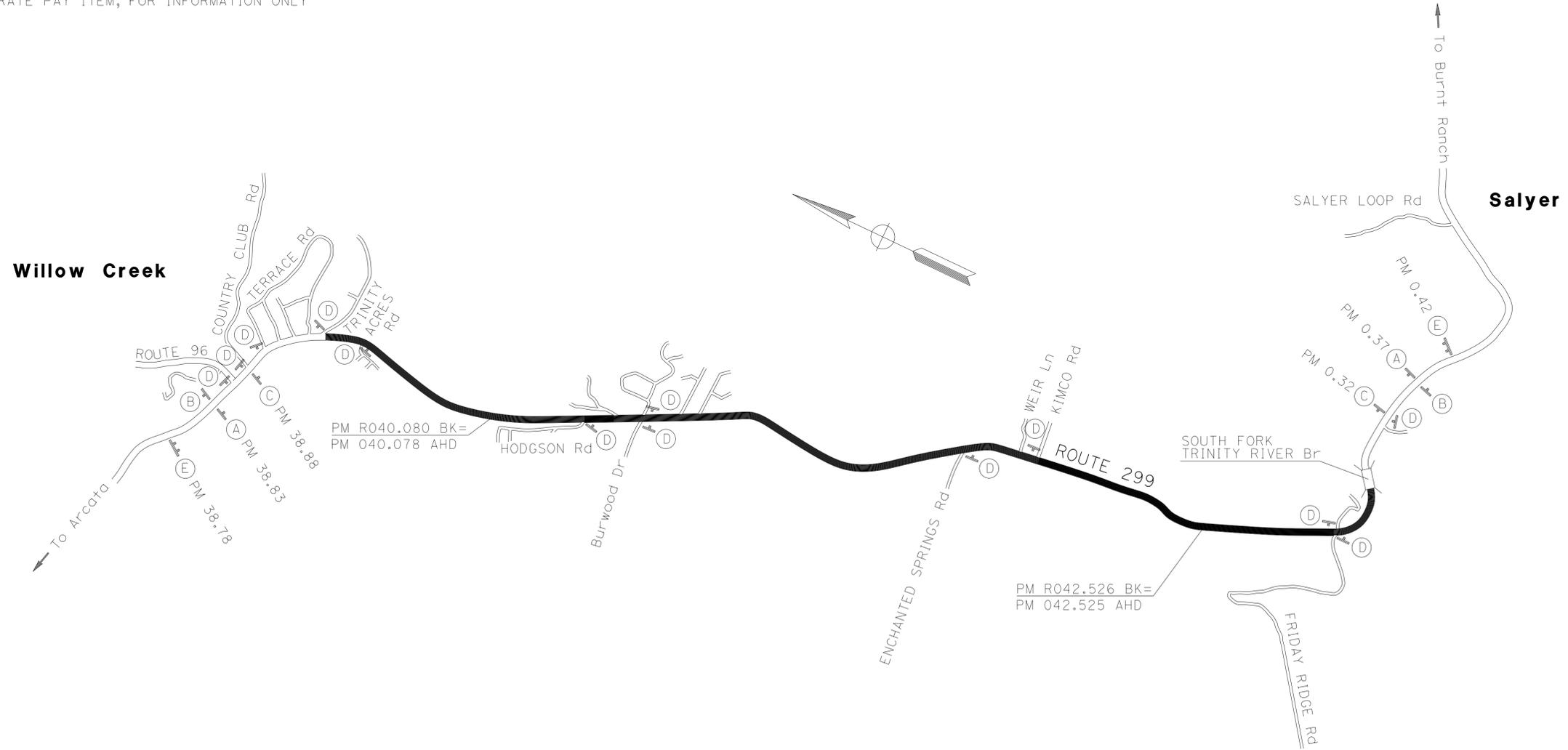
○	TYPE	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS (N)
A	G20-1	ROAD WORK NEXT 5 MILES	60" x 36"	1 - 6" x 6"	2
	C23B(CA)	RESURFACING	60" x 18"		2
B	G20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	2
C	W11-1	BICYCLE SYMBOL	36" x 36"	1 - 4" x 6"	2
	W16-1	SHARE THE ROAD	24" x 30"		2
D	W20-1	ROAD WORK AHEAD	36" x 36"	1 - 4" x 4"	13
E	C40(CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONE	108" x 42"	2 - 6" x 6"	2

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

60" x 18"  
 4" Caps  
 BLACK/ORANGE

**RESURFACING**

C23B(CA)



**CONSTRUCTION AREA SIGNS**

NO SCALE

**CS-1**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

P:\PROJ\01\0e520\graf+ing\Sheets\0114000104md001.dgn  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC OPERATIONS  
 FUNCTIONAL SUPERVISOR RICHARD MULLEN  
 CALCULATED/DESIGNED BY CHECKED BY  
 SHERI M. RODRIGUEZ TROY A. ARSENEAU  
 REVISED BY DATE REVISED  
 SHERI M. RODRIGUEZ

- NOTES:**
- CALIFORNIA CODES ARE DESIGNATED BY (CA). OTHERWISE, FEDERAL (MUTCD) CODES ARE SHOWN.
  - ALL SIGNS SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE BACKGROUND AND SHALL BE EQUIPPED WITH AT LEAST TWO 16" x 16" ORANGE FLAGS FOR DAYTIME CLOSURE OR FLASHING BEACONS FOR LANE CLOSURE DURING HOURS OF DARKNESS.
  - ALL CONES USED FOR LANE CLOSURES DURING THE HOURS OF DARKNESS SHALL BE FITTED WITH RETROREFLECTIVE BANDS OR SLEEVES.
  - WHEN A PILOT CAR IS USED, PLACE A C37 (CA) SIGN AT ALL INTERSECTIONS WITHIN TRAFFIC CONTROL AREA. WHERE VEHICULAR TRAFFIC CAN NOT EFFECTIVELY SELF-REGULATE, AT LEAST ONE FLAGGER SHALL BE USED AT EACH INTERSECTION WITHIN THE TRAFFIC CONTROL AREA.
  - FLAGGER SHOULD STAND IN A CONSPICUOUS PLACE, FACING TRAFFIC AT ALL TIMES, BE VISIBLE TO APPROACHING TRAFFIC AS WELL AS APPROACHING VEHICLES AFTER THE FIRST VEHICLE HAS STOPPED.
  - ADDITIONAL ADVANCE FLAGGERS ARE REQUIRED.
  - WHEN FLAGGER IS NOT VISIBLE FROM THIS LOCATION PLACE A C29 (CA) SIGN BELOW THE C9A (CA) SIGN.



**SIGN PANEL SIZE (MINIMUM)**

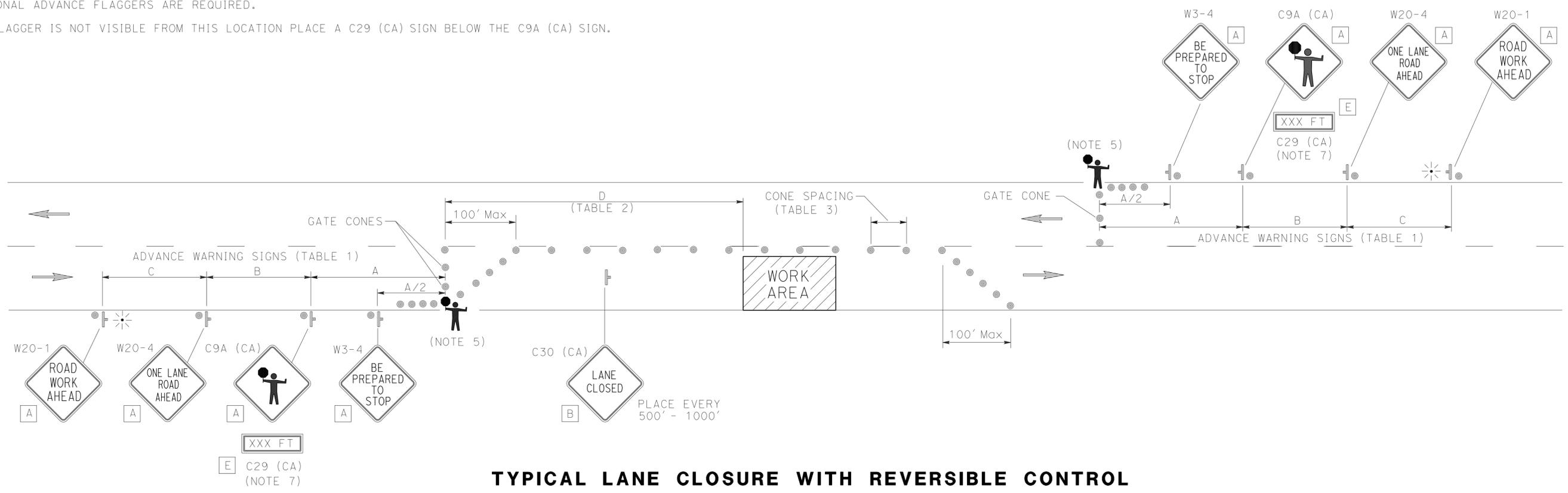
A	48" x 48" - SPEED OF 45 mph OR MORE 36" x 36" - SPEED LESS THAN 45 mph
B	30" x 30"
C	UNUSED
D	UNUSED
E	20" x 7"

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	15	30

*Sheri M. Rodriguez*  
 REGISTERED CIVIL ENGINEER 3-5-15 DATE  
**December 21, 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.

REGISTERED PROFESSIONAL ENGINEER  
 SHERI M. RODRIGUEZ  
 No. C66861  
 Exp. 9-30-16  
 CIVIL  
 STATE OF CALIFORNIA



**TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL**

**TABLE 1**  
ADVANCE WARNING SIGN SPACING

ROAD TYPE	Min A	Min B	Min C
	ft		
URBAN (25 mph OR LESS)	100	100	100
URBAN (30 mph TO 40 mph)	250	250	250
URBAN (MORE THAN 40 mph)	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

**TABLE 2**  
BUFFER SPACE

APPROACH SPEED	Min D	DOWNGRADE Min D		
		-3%*	-6%*	-9%*
mph		ft		
25 & BELOW	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

\* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

**TABLE 3**  
Max CONE SPACING

POSTED SPEED	TAPER	TANGENT	CONFLICT*
mph	ft		
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	55	110	27
60	60	120	30
65	65	130	32

\* USE WHERE THERE IS A CONFLICT BETWEEN EXISTING PAVEMENT MARKINGS AND CHANNELIZERS.

APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**  
NO SCALE

**TH-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	16	30

December 21, 2015  
 PLANS APPROVAL DATE

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## TRAFFIC STRIPE AND PAVEMENT MARKER QUANTITIES

LOCATION (PM)	L+/R+	DETAIL NUMBER	DETAIL LENGTH	THERMOPLASTIC TRAFFIC STRIPE						PAVEMENT MARKER (RETROREFLECTIVE RECESSED)			REMOVE MARKERS (N)	REMARKS		
				REMOVE THERMOPLASTIC TRAFFIC STRIPE	8 INCH SOLID WHITE	4 INCH SOLID YELLOW	4 INCH SOLID WHITE	4 INCH BROKEN (12-3) WHITE	4 INCH BROKEN (36-12) WHITE	4 INCH BROKEN (36-12) YELLOW	TYPE D YELLOW (TWO WAY)	TYPE H CLEAR (ONE WAY)			TYPE G CLEAR (ONE WAY)	
FROM	TO		LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA			
39.10	39.48	R+	27B	2006				2006								
39.10	39.33	L+	27B	1214				1214								
39.10	39.49		22	2038			4076			172				172		
39.33	39.36	L+	27C	158				158								
39.36	40.35	L+	27B	5227				5227								
39.48	39.50	R+	27C	106				106								
39.50	40.13		22	3326			6653			279				279		
39.50		R+	21	15			30								PANTHER Rd	
39.50	40.13	R+	27B	3326				3326								
40.13	40.15	R+	27C	106				106								
40.14		R+	21	12			24								CHINA CREEK Rd	
40.15	40.34	R+	27B	1003				1003								
40.15	40.29		22	739			1478			64				64		
40.29	40.33		29	211			845			20				20		
40.33	40.35		22	106			211			11				11		
40.34	40.35		38	53	106	53						5		5		
40.34	40.37	R+	27C	158				158								
40.35		R+	21	15			30								GAMBIS Dr	
40.35		L+	21	15			30								BURWOOD Dr	
40.35	40.37	L+	27C	106				106								
40.36	40.37		38	53	106	53						5		5		
40.36	40.37		22	53			106			6				6		
40.37	41.09	R+	27B	3802				3802								
40.37	40.81	L+	27B	2323				2323								
40.37	40.40		29	158			634			15				15		
40.40	40.56		32	845			1690			88				88		
40.56	40.66		29	528			2112			46				46		
40.66	41.18		22	2746			5491			231				231		
40.94	41.73	L+	27B	4171				4171								
41.00	41.00	R+	38A	20	40	20									AERIAL ENFORCEMENT	
41.09	41.11	R+	27C	106				106								
41.11	41.17	R+	27B	317				317								
41.17	41.20	R+	27C	158				158								
41.19	41.30		22	581			1162			50				50		
41.20	42.84	R+	27B	8659				8659								
41.30	41.36		29	317			1267			28				28		
41.36	42.04		32	3590			7181			374				374		
41.46	41.86	R+	12	2112								46		46		
41.56	42.00	L+	12	2323								51		51		
41.73	41.75	L+	27C	106				106								
41.74		L+	21	15			30									
41.75	42.85	L+	27B	5808				5808								
42.00	42.00		38A	20	40	20									BURWOOD Dr	
42.04	42.06		29	106			422			11				11		
42.06	42.07		22	53			106			6				6		
42.07	42.09		29	106			422			11				11		
42.09	42.10		22	53			106			6				6		
42.10	42.13		29	158			634			15				15		
42.13	42.28		22	792			1584			68				68		
42.28	42.55		19R	1426			1426			32	61			93		
42.55	42.86		22	1637			3274			138				138		
42.84	42.89	R+	27C	264				264								
42.85	42.87	L+	27C	106				106								
42.86		L+	21	22			44									
42.86		R+	22	22			44			4				4	MARTIN Rd	
42.87	43.00		22	686			1373			59				59	FRIDAY RIDGE Rd	
42.87	43.00	L+	27B	686				686								
42.89	43.00	R+	27B	581				581								
SUBTOTAL					291	146	42485	39123	1374	4435	10297	1734	61	107	1902	
TOTAL					291	146	81608	1374		14732			1902		1902	

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

# PAVEMENT DELINEATION QUANTITIES

## PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Et Caltrans®  
 FUNCTIONAL SUPERVISOR: T. J. FITZGERALD  
 CALCULATED/DESIGNED BY: STAN BRANDENBURG  
 CHECKED BY: STAN BRANDENBURG  
 GAVIN KEATING  
 REVISED BY: DATE REVISOR  
 REVISOR: DATE REVISOR

LAST REVISION DATE PLOTTED => 24-DEC-2015  
 02-18-15 TIME PLOTTED => 11:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	17	30

*Stanley B. Brandenburg* 10-07-15  
 REGISTERED CIVIL ENGINEER DATE  
**December 21, 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.

### REMOVE THERMOPLASTIC PAVEMENT MARKING

LOCATION (PM)	ORIENTATION	TYPE/LEGEND	AREA SQFT	REMARKS
39.49	FNBT	STOP	22	PANTHER Rd
39.49	FNBT	LIMIT LINE	30	PANTHER Rd
40.35	FEBT	TYPE III ARROW	42	
40.38	FWBT	TYPE III ARROW	42	
40.44	FEBT	TYPE III ARROW	42	
40.46	FWBT	TYPE III ARROW	42	
40.51	FEBT	TYPE III ARROW	42	
40.53	FWBT	TYPE III ARROW	42	
41.36	FEBT	TYPE III ARROW	42	
41.38	FWBT	TYPE III ARROW	42	
41.51	FEBT	TYPE III ARROW	42	
41.53	FWBT	TYPE III ARROW	42	
41.56	FWBT	TYPE VI ARROW	42	
41.60	FWBT	TYPE VI ARROW	42	
41.64	FWBT	TYPE VI ARROW	42	
41.67	FEBT	TYPE III ARROW	42	
41.68	FEBT	TYPE III ARROW	42	
41.78	FEBT	TYPE VI ARROW	42	
41.81	FEBT	TYPE VI ARROW	42	
41.85	FEBT	TYPE VI ARROW	42	
42.02	FEBT	TYPE III ARROW	42	
42.03	FWBT	TYPE III ARROW	42	
TOTAL			892	

### THERMOPLASTIC PAVEMENT MARKING

LOCATION (PM)	ORIENTATION	TYPE/LEGEND	AREA SQFT	REMARKS
39.49	FNBT	STOP	22	PANTHER Rd
39.49	FNBT	LIMIT LINE	30	PANTHER ROAD
40.14	FNBT	STOP	22	CHINA CREEK Rd
40.14	FNBT	LIMIT LINE	25	CHINA CREEK Rd
40.35	FEBT	TYPE III ARROW	42	
40.36	FNBT	STOP	22	GAMBIS Dr
40.36	FNBT	LIMIT LINE	24	GAMBIS Dr
40.36	FSBT	STOP	22	BURWOOD Dr
40.36	FSBT	LIMIT LINE	24	BURWOOD Dr
40.38	FWBT	TYPE III ARROW	42	
40.44	FEBT	TYPE III ARROW	42	
40.46	FWBT	TYPE III ARROW	42	
40.51	FEBT	TYPE III ARROW	42	
40.53	FWBT	TYPE III ARROW	42	
41.18	FNBT	STOP	22	ENCHANTED SPRINGS Rd
41.18	FNBT	LIMIT LINE	20	ENCHANTED SPRINGS Rd
41.36	FEBT	TYPE III ARROW	42	
41.38	FWBT	TYPE III ARROW	42	
41.51	FEBT	TYPE III ARROW	42	
41.53	FWBT	TYPE III ARROW	42	
41.56	FWBT	TYPE VI ARROW	42	
41.60	FWBT	TYPE VI ARROW	42	
41.64	FWBT	TYPE VI ARROW	42	
41.67	FEBT	TYPE III ARROW	42	
41.67	FSBT	STOP	22	GOLDEN BEAR Dr
41.67	FSBT	LIMIT LINE	18	GOLDEN BEAR Dr
41.68	FEBT	TYPE III ARROW	42	
41.78	FEBT	TYPE VI ARROW	42	
41.81	FEBT	TYPE VI ARROW	42	
41.85	FEBT	TYPE VI ARROW	42	
41.91	FWBT	LANE LINE	396	CHP SCALES
42.02	FEBT	TYPE III ARROW	42	
42.03	FWBT	TYPE III ARROW	42	
42.85	FSBT	STOP (2)	44	MARTIN Rd
42.85	FSBT	LIMIT LINE	38	MARTIN Rd
42.86	FNBT	STOP (2)	44	FRIDAY RIDGE Rd
42.86	FNBT	LIMIT LINE	22	FRIDAY RIDGE Rd
TOTAL			1657	

## PAVEMENT DELINEATION QUANTITIES PDQ-2



### ROADWAY QUANTITIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	18	30

*Stanley B. Brandenburg* 10-07-15  
 REGISTERED CIVIL ENGINEER DATE

**December 21, 2015**  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 STANLEY BRANDENBURG  
 No. C81750  
 Exp. 03-31-16  
 CIVIL  
 STATE OF CALIFORNIA

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LOCATION (PM)		LOCATION NUMBER	L+ / R+	LENGTH (N)	WIDTH (N)	BONDED WEARING COURSE - GAP GRADED	ASPHALTIC EMULSION (BONDED WEARING COURSE)	COLD PLANE ASPHALT CONCRETE PAVEMENT	REPLACE ASPHALT CONCRETE SURFACING	REMARKS
						TON	TON	SQYD	CY	
FROM	TO			LF		TON	TON	SQYD	CY	
39.20	39.21			40	34.0			151		BEGIN PROJECT CONFORM
39.20	39.40			1056	34.0	157	4.2			
39.34	39.38			240	22	20	0.5			WIDE SHOULDER
39.38	39.40	1	R+	106	12.0				12	
39.40	39.50			528	33.0	76	2.0			
39.50	39.73			1214	30.0	159	4.2			
39.50			L+	67	30.0	9	0.2			PANTHER Rd
39.69	39.74	2	R+	264	12.0				29	
39.70	39.75	3	L+	243	12.0				27	
39.73	40.19			2429	30.5	324	8.6			
39.91	39.96	4	L+	264	12.0				29	
40.15			R+	78	18.0	6	0.2	156		CHINA CREEK Rd
40.19	40.32			686	37.0	111	2.9			
40.32	40.37			264	44.5	51	1.4			
40.33	40.56	5	L+	1214	12.0				135	
40.34			R+	48	15.0	3	0.1	80		GAMBIS Rd
40.34			L+	34	18.0	3	0.1	68		BURWOOD Rd
40.37	40.67			1584	40.0	277	7.3			
40.67	40.73			317	32.0	44	1.2			
40.70	40.75		L+	228	4.0			101		COLD PLANE AT MBGR
40.73	41.20			2482	44.5	483	12.8			
40.78	40.88		L+	636	6.0			424		CHP SCALES
40.96	41.01	6	L+	275	12.0				31	
41.00	41.02	7	R+	106	12.0				12	
41.07	41.13	8	R+	333	12.0				37	
41.09	41.13	9	L+	183	12.0				20	
41.17			R+	59	16.0	4	0.1	105		ENCHANTED SPRINGS Ln
41.20	41.39			1003	51.0	224	5.9			
41.39	41.48			475	59.0	123	3.2			
41.45	41.49	10	L+	211	12.0				23	
41.48	41.50			106	61.5	28	0.8			
41.50	41.59			475	65.5	136	3.6			
41.57	41.67		L+	500	4.0			222		COLD PLANE AT MBGR
41.59	42.07			2534	56.0	621	16.4			
41.67			L+	54	15.0	4	0.1	90		CAMPORA Dr
41.75			L+	61	15.0	4	0.1	102		WEIR Ln
41.91	41.96	11	L+	264	12.0				29	
41.97	42.05	12	L+	444	12.0				49	
42.07	42.15			422	54.0	100	2.6			
42.13	42.15	13	R+	125	12.0				14	
42.15	42.48			1742	37.0	282	7.5			
42.15	42.16	14	L+	60	12.0				7	
42.22	42.24	15	L+	106	12.0				12	
42.29	42.30	16	L+	60	12.0				7	
42.29	42.30		L+	50	4.0			22		COLD PLANE AT MBGR
42.30	42.32		L+&R+	100	28			480		MARTIN BLUFF VIADUCT
42.31	42.33	17	L+	63	12.0				7	
42.34	42.35		L+	50	4.0			22		COLD PLANE AT MBGR
42.48	42.87			2059	38.5	347	9.2			
42.62	42.65	18	L+	140	12.0				16	
42.72	42.77	19	L+	223	12.0				25	
42.87	42.98	20	L+	581	12.0				65	
42.91	42.98	21	R+	370	12.0				41	
42.87	42.98			581	41.0	104	2.8			
42.87			L+	61	18.0	5	0.1	122		MARTIN Rd
42.87			R+	73	18.0	6	0.2	146		FRIDAY RIDGE Rd
42.98	42.99		L+	63	4.0			28		COLD PLANE AT MBGR
42.98	42.99		R+	63	4.0			28		COLD PLANE AT MBGR
42.98	42.99			103	41			467		END PROJECT CONFORM
<b>TOTAL</b>						3711	98.3	2945	627	

## SUMMARY OF QUANTITIES Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	19	30

*Stanley B. Brandenburg* 10-07-15  
 REGISTERED CIVIL ENGINEER DATE

**December 21, 2015**  
 PLANS APPROVAL DATE

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**SHOULDER BACKING**

LOCATION (PM)		OFFSET	SHOULDER BACKING TON
FROM	TO		
39.40	40.07	L+	153
39.69	40.13	R+	100
40.07	40.35	L+	94
40.15	40.34	R+	43
40.47	40.50	L+	10
40.77	40.80	L+	7
40.90	40.96	R+	14
41.00	41.14	L+	32
41.05	41.10	R+	11
41.17	41.78	R+	139
41.70	42.12	L+	96
41.91	41.94	R+	7
42.14	42.29	L+	34
42.36	42.48	L+	27
42.48	42.70	R+	50
42.60	42.71	L+	25
42.82	42.98	R+	36
TOTAL			878

**RUMBLE STRIP**

LOCATION (PM)		CENTERLINE RUMBLESTRIP (HMA, GROUND-IN INDENTATIONS) STA
FROM	TO	
39.20	40.30	57
40.30	40.34	3
40.34	40.40	4
40.40	40.57	18
40.57	40.68	12
40.68	41.30	32
41.30	41.39	10
41.39	42.04	69
42.04	42.14	11
42.14	42.98	86
TOTAL		302

**MAINTAIN EXISTING TMS ELEMENTS DURING CONSTRUCTION**

LOCATION (PM)	ELEMENT	REMARKS
41.71	TCS	EAST OF WILLOW CREEK

TCS - TRAFFIC COUNT STATION

**ADJUST UTILITY COVER TO GRADE**

UTILITY COVER NUMBER	LOCATION	ADJUST UTILITY COVER TO GRADE	DESCRIPTION
	PM	EA	
1	41.71	1	19.5" x 29.5" COUNT STATION
2	41.71	1	9" DETECTION
3	41.71	1	9" DETECTION
4	41.71	1	9" DETECTION
5	41.71	1	9" DETECTION
TOTAL		5	

**HOT MIX ASPHALT DIKE**

LOCATION (PM)		L+/R+	LENGTH	REMOVE ASPHALT CONCRETE DIKE LF	PLACE HOT MIX ASPHALT DIKE (TYPE A) LF	PLACE HOT MIX ASPHALT DIKE (TYPE E) LF	HMA (TYPE A) TON
FROM	TO						
39.71	39.75	L+	210	210		210	5.16
40.07	40.35	L+	1478	1478		1478	36.31
40.27	40.31	R+	209	209	209		5.33
40.56	40.65	L+	476	476	476		12.15
40.62	40.70	R+	446	446	446		11.38
40.98	41.02	L+	105	105	105		2.68
41.24	41.28	L+	212	212	212		5.41
42.43	42.44	L+	60	60	60		1.53
42.48	42.55	L+	370	370	370		9.44
TOTAL				3566	1878	1688	89.39

**SUMMARY OF QUANTITIES Q-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Et Caltrans®  
 FUNCTIONAL SUPERVISOR T. J. FITZGERALD  
 CALCULATED/DESIGNED BY CHECKED BY  
 GAVIN KEATING STAN BRANDENBURG  
 REVISED BY DATE REVISED  
 DIST COUNTY ROUTE POST MILES TOTAL PROJECT SHEET No. TOTAL SHEETS  
 01 Hum 299 39.1/43.0 19 30



M

P continued

S

T continued

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
<p>N</p>	
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
<p>O</p>	
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</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

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
<p>Q</p>	
<p>R</p>	
Qty	QUANTITY
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	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
<p>T</p>	
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
ToI	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL
<p>U</p>	
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
<p>V</p>	
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
<p>W</p>	
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
<p>X</p>	
X Sec	CROSS SECTION
Xing	CROSSING
<p>Y</p>	
Yr	YEAR
Yrs	YEARS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	20	30

*Grace M. Tsushima*  
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.

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

TO ACCOMPANY PLANS DATED 12-21-15

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 <sup>3</sup> , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	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)

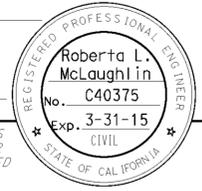
NO SCALE

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

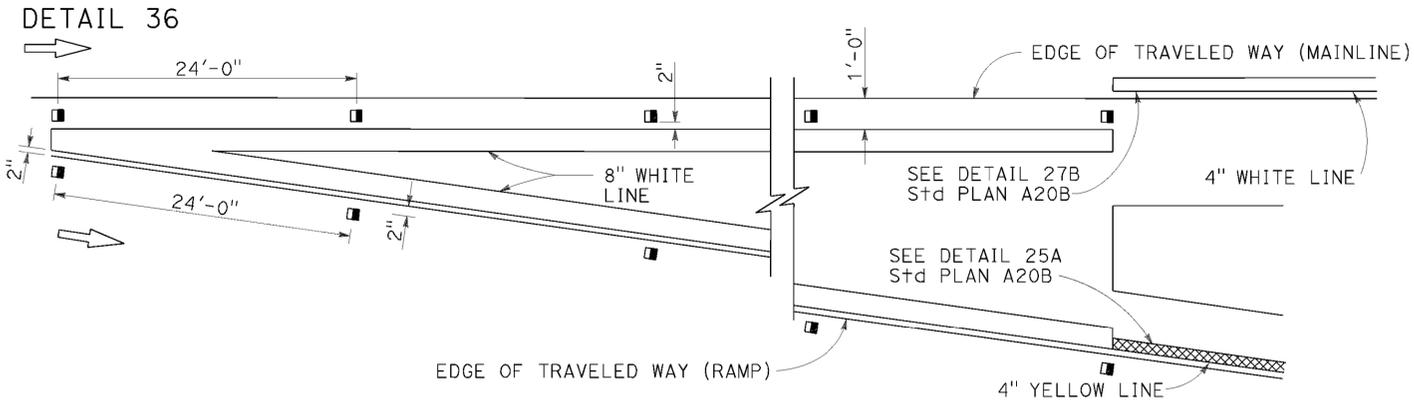
REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	21	30

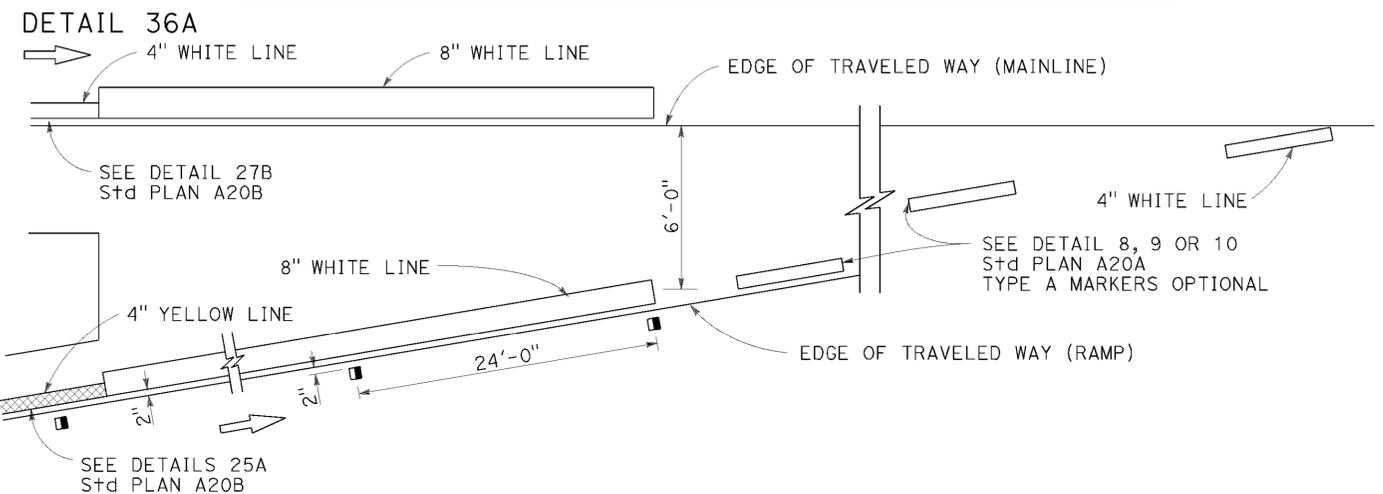
REGISTERED CIVIL ENGINEER  
 July 19, 2013  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



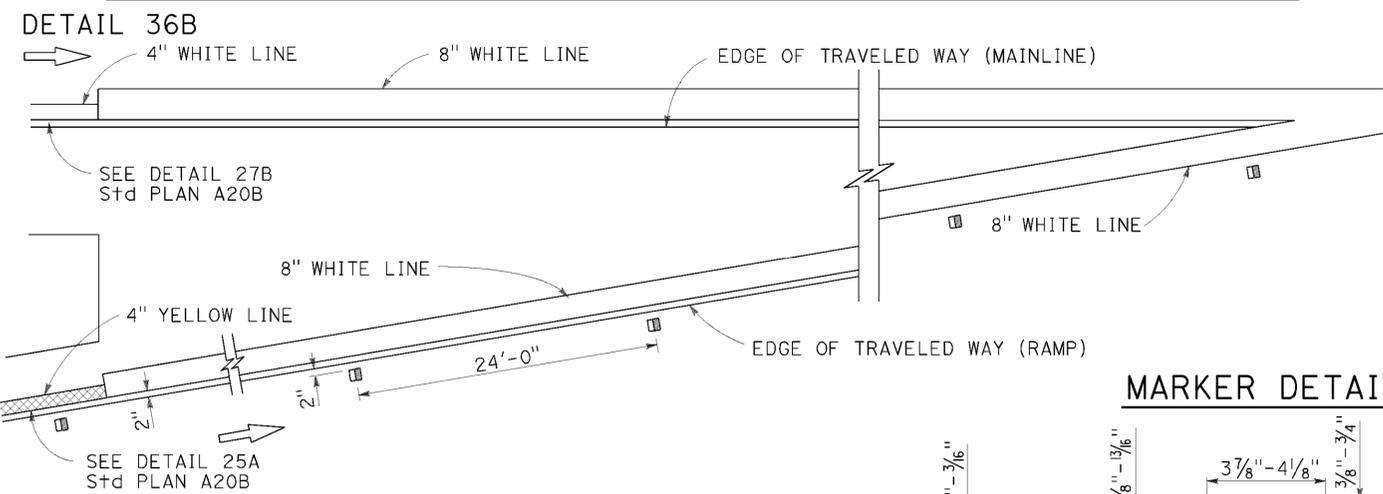
### EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



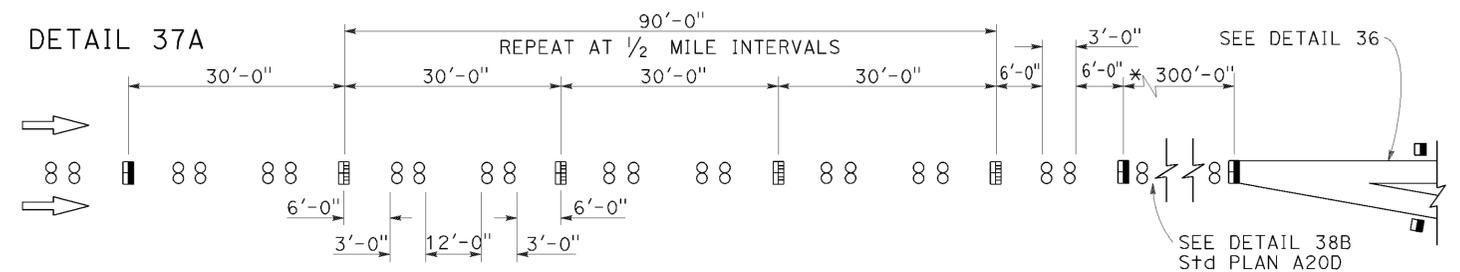
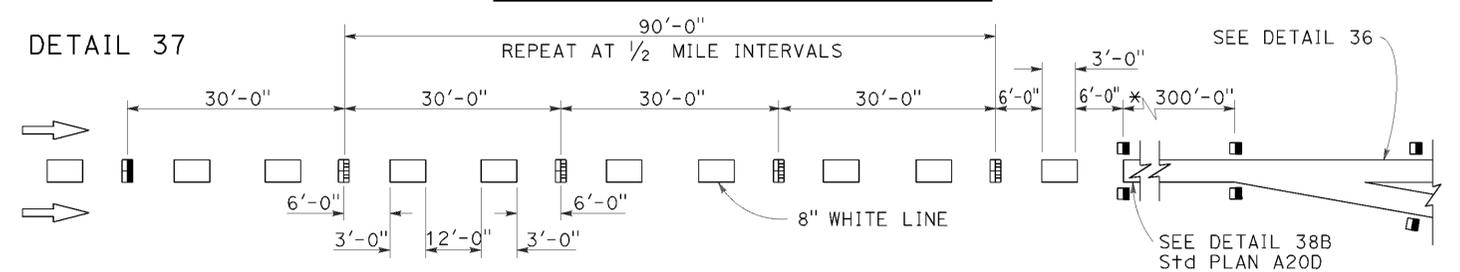
### ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

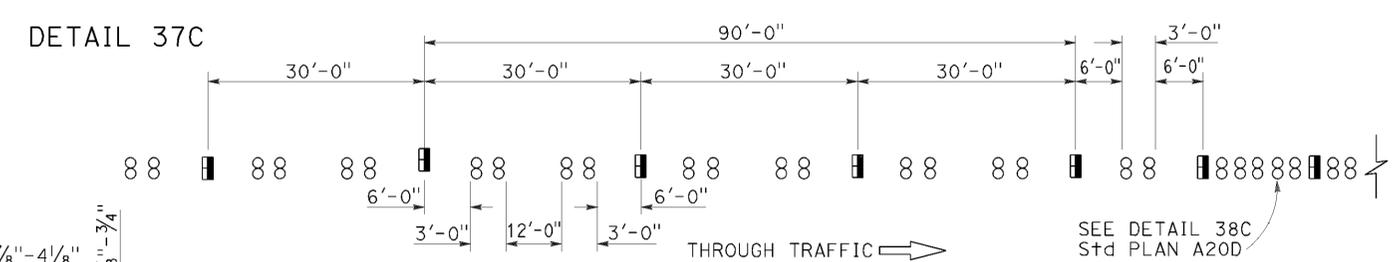
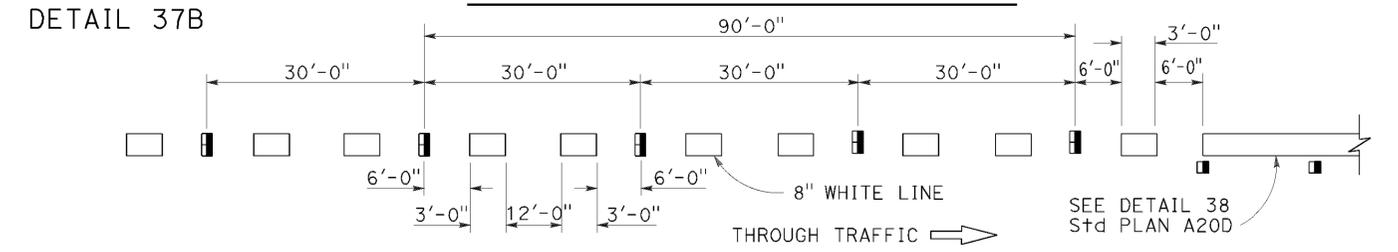


### LANE DROP AT EXIT RAMP

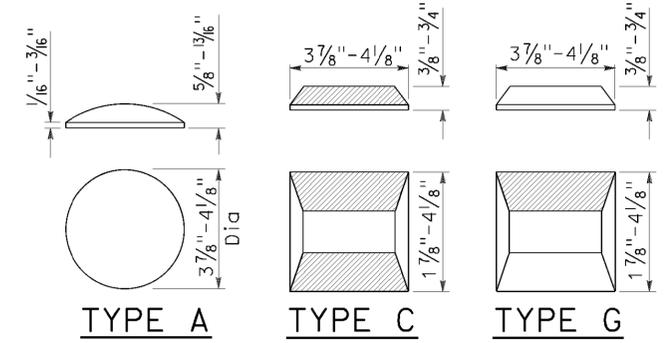


\* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

### LANE DROP AT INTERSECTIONS



### MARKER DETAILS



### LEGEND:

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

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

P:\PROJ\01\0e520\dr\aff\ing\Sheets\vo002.dgn

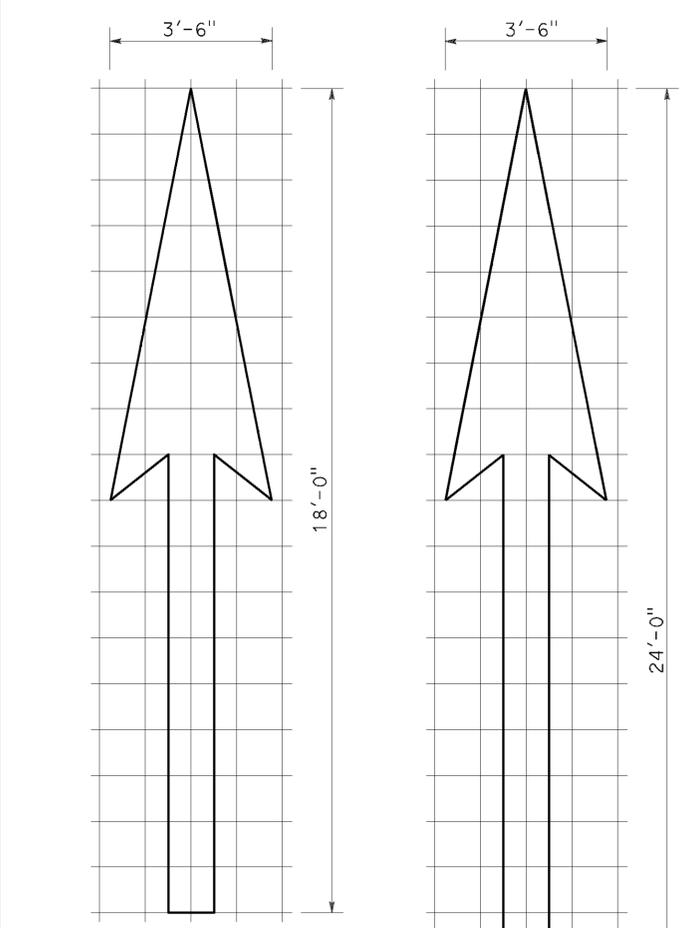
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	22	30

Registered Professional Engineer  
**Roberta L. McLaughlin**  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

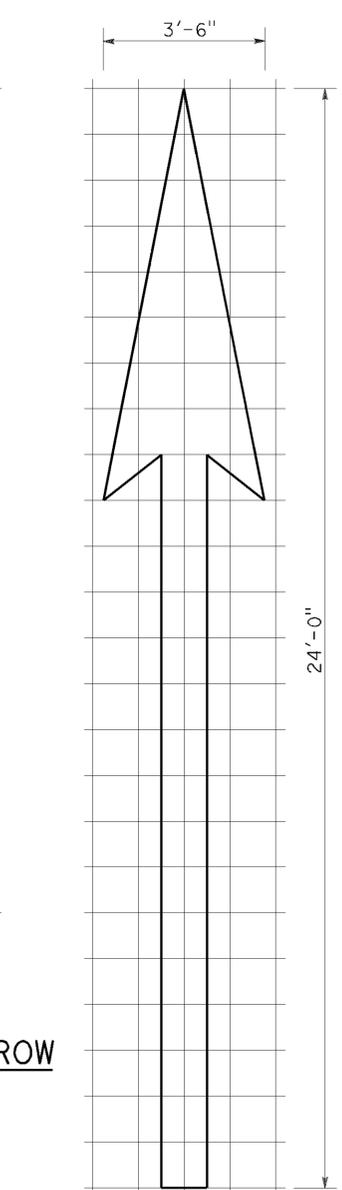
April 20, 2012  
 PLANS APPROVAL DATE

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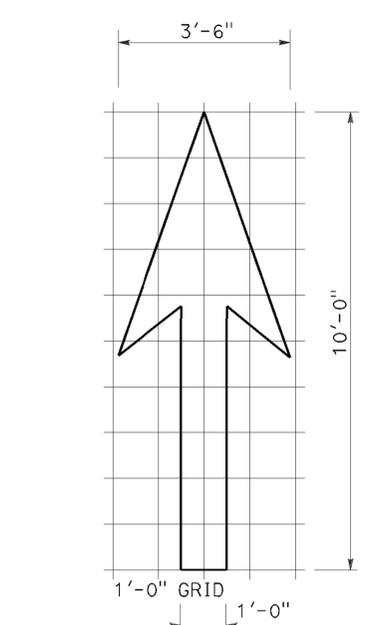
TO ACCOMPANY PLANS DATED 12-21-15



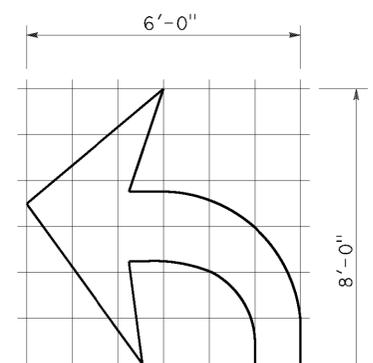
1'-0" GRID 1'-0"  
A=25 ft<sup>2</sup>  
**TYPE I 18'-0" ARROW**



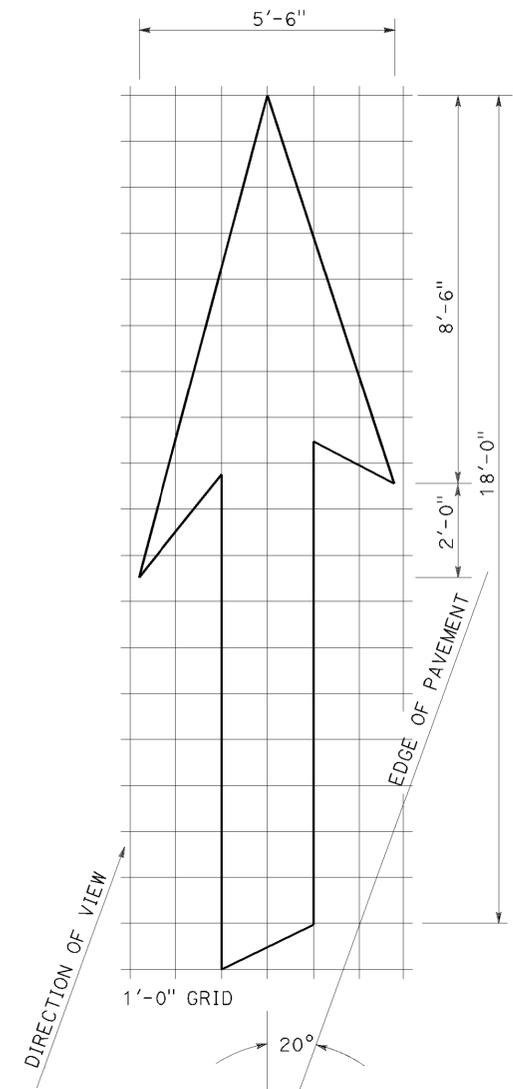
1'-0" GRID 1'-0"  
A=31 ft<sup>2</sup>  
**TYPE I 24'-0" ARROW**



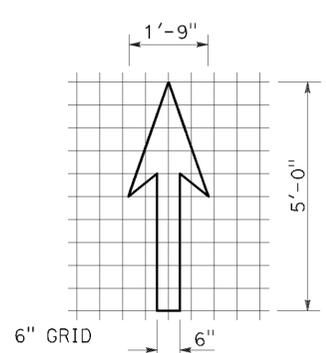
1'-0" GRID 1'-0"  
A=14 ft<sup>2</sup>  
**TYPE I 10'-0" ARROW**



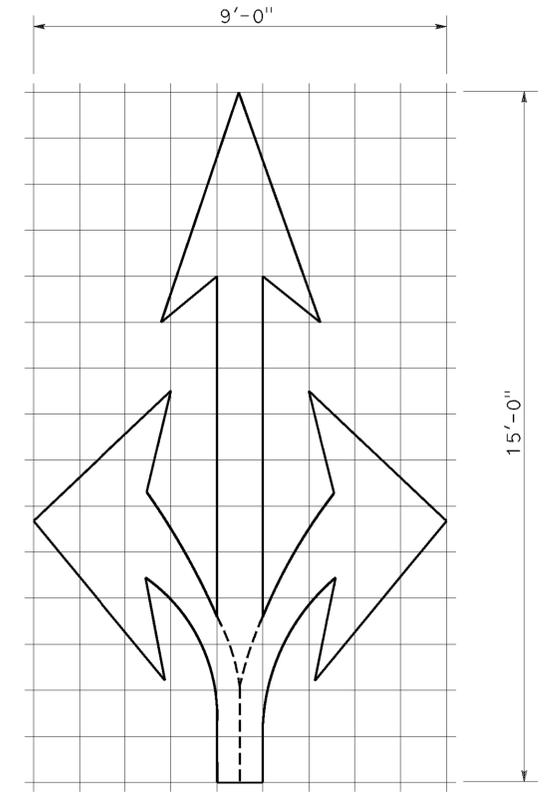
1'-0" GRID 1'-0"  
A=15 ft<sup>2</sup>  
**TYPE IV (L) ARROW**  
(For Type IV (R) arrow, use mirror image)



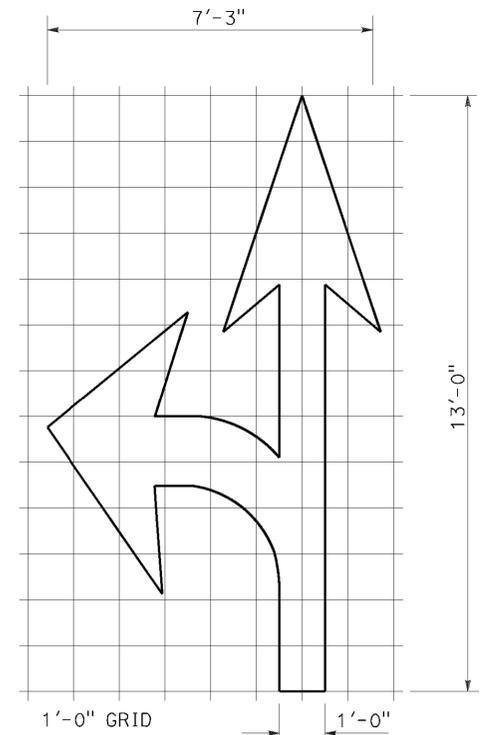
1'-0" GRID 20°  
A=42 ft<sup>2</sup>  
**TYPE VI ARROW**  
Right lane drop arrow  
(For left lane, use mirror image)



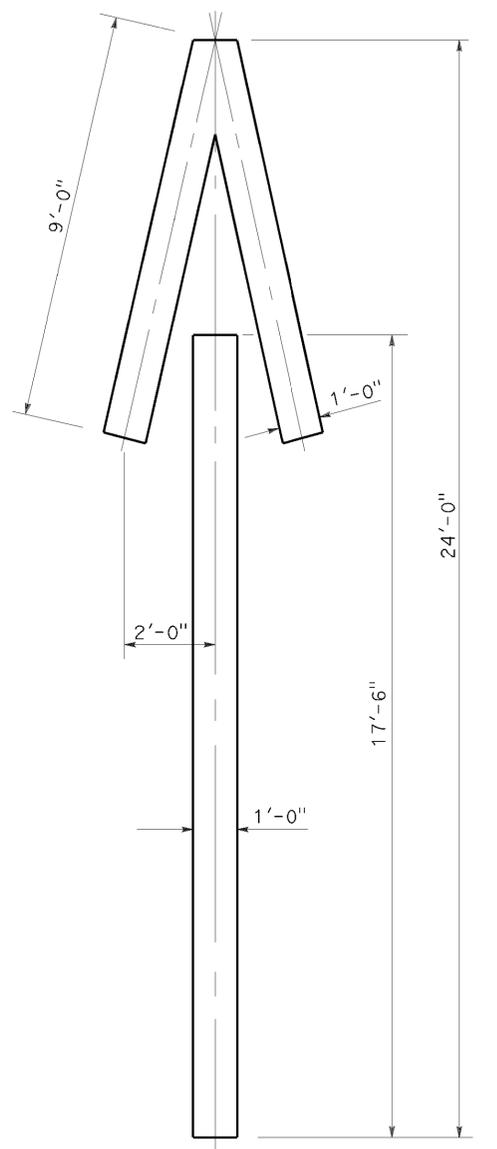
6" GRID 1'-9" 5'-0" 6"  
A=3.5 ft<sup>2</sup>  
**BIKE LANE ARROW**



1'-0" GRID 1'-0"  
A=36 ft<sup>2</sup>  
**TYPE VIII ARROW**



1'-0" GRID 1'-0"  
A=27 ft<sup>2</sup>  
**TYPE VII (L) ARROW**  
(For Type VII (R) arrow, use mirror image)



A=33 ft<sup>2</sup>  
**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.

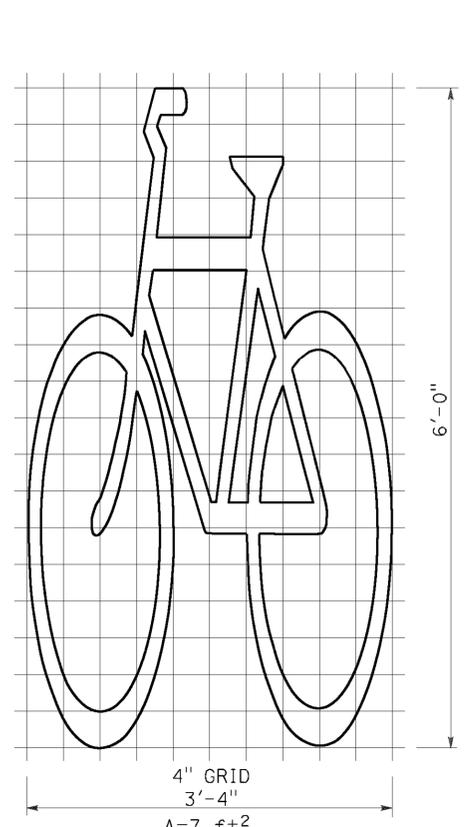
**REVISED STANDARD PLAN RSP A24A**

**2010 REVISED STANDARD PLAN RSP A24A**

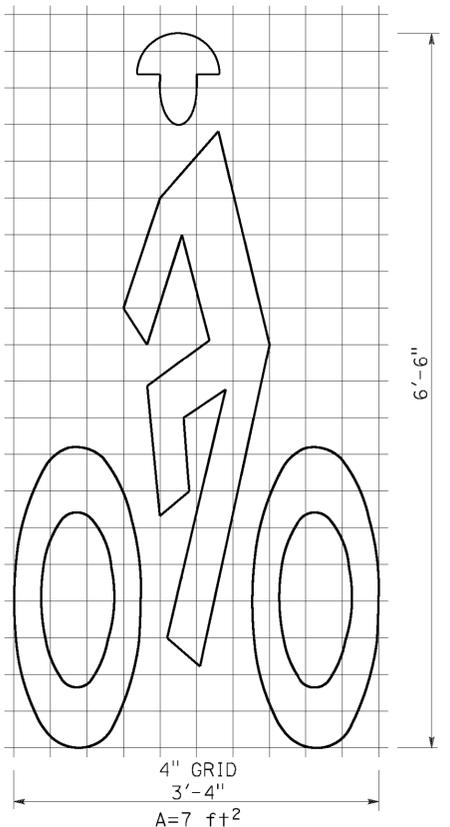
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	23	30

Robert L. McLaughlin  
 REGISTERED CIVIL ENGINEER  
 October 19, 2012  
 PLANS APPROVAL DATE  
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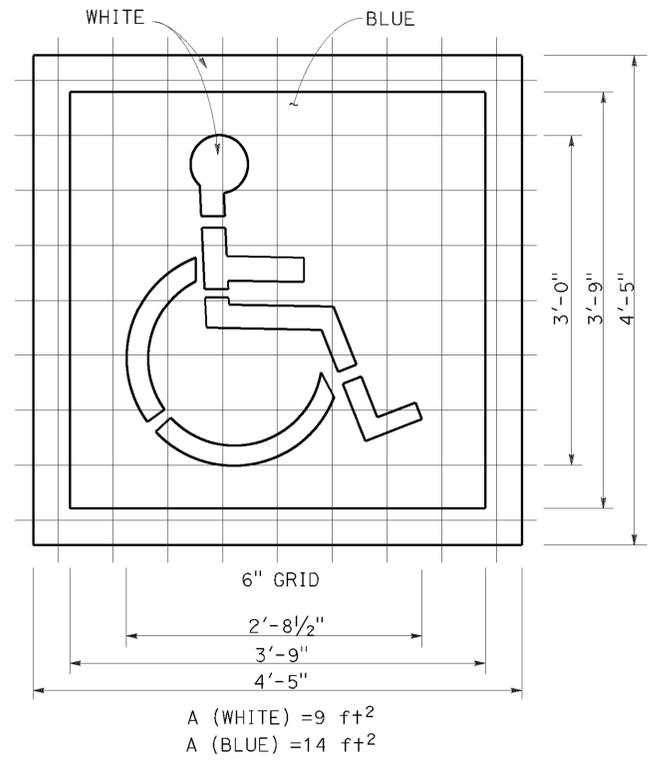
**NOTE:** TO ACCOMPANY PLANS DATED 12-21-15  
 Minor variations in dimensions may be accepted by the Engineer.



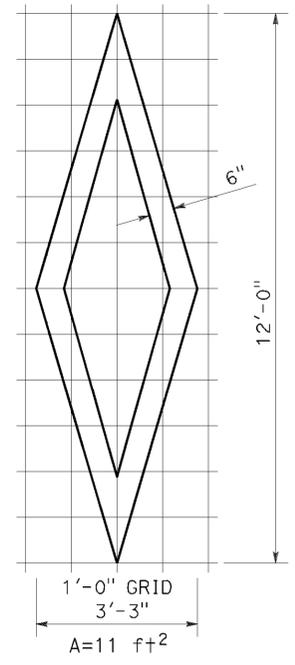
**BIKE LANE SYMBOL WITHOUT PERSON**



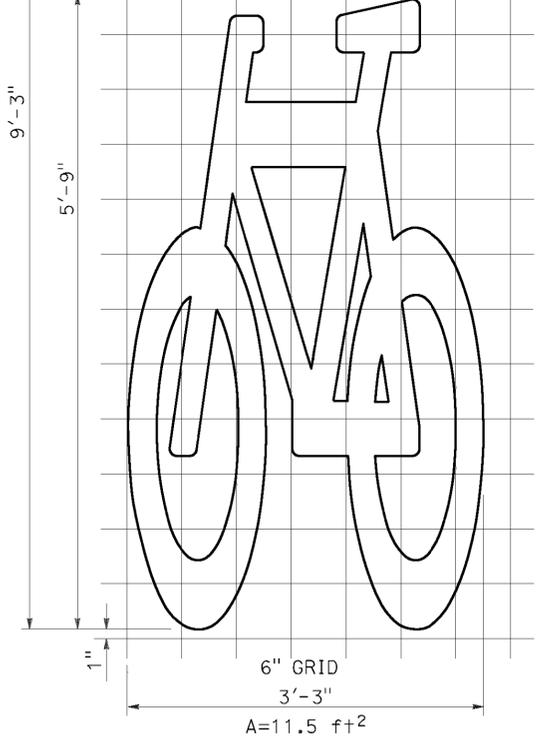
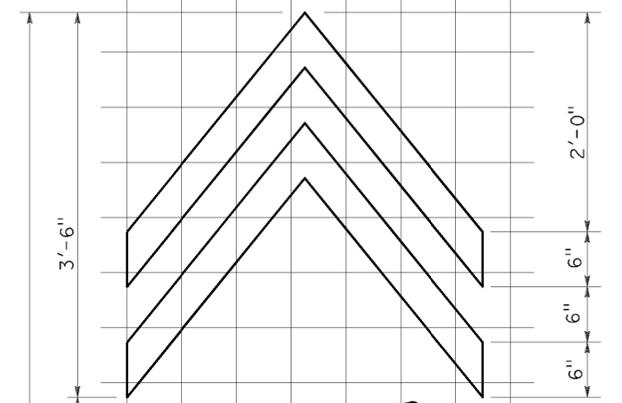
**BIKE LANE SYMBOL WITH PERSON**



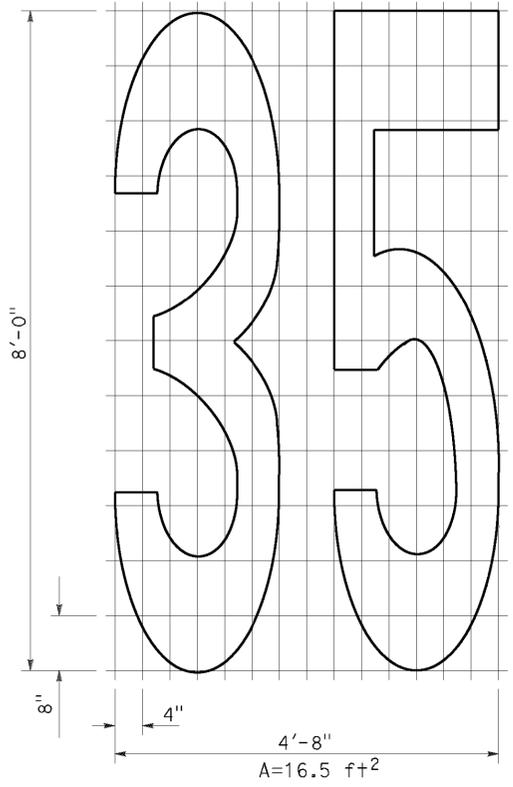
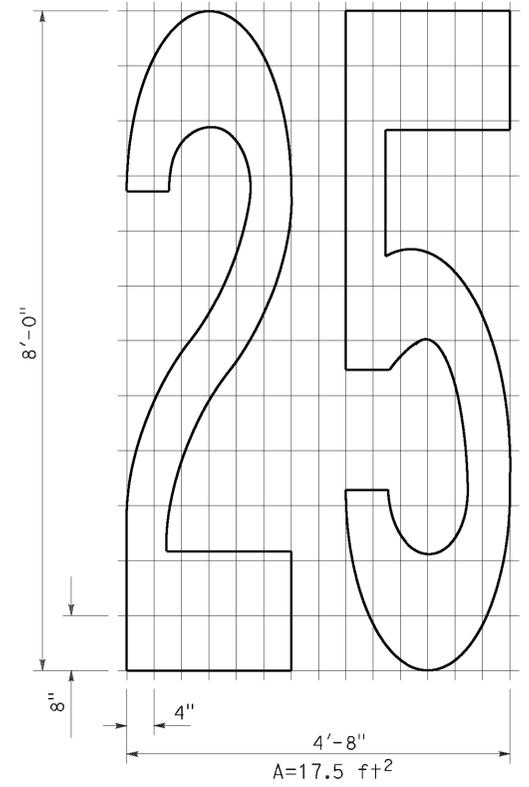
**INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING**



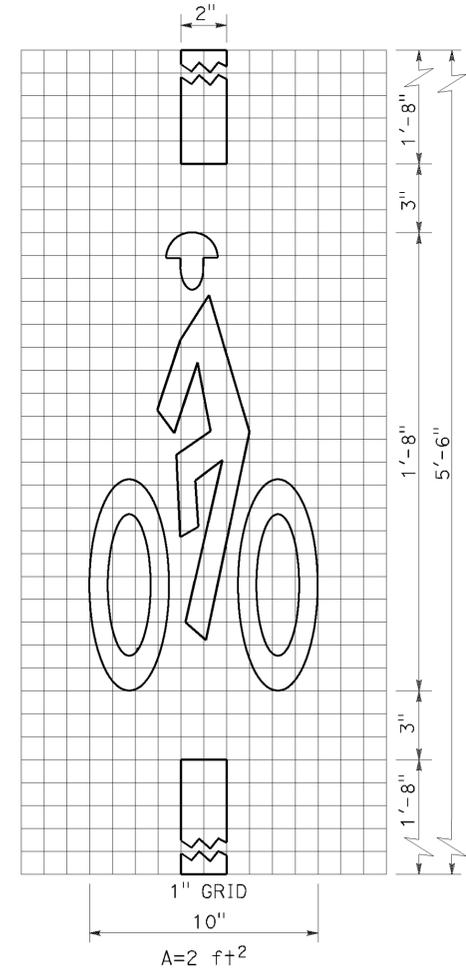
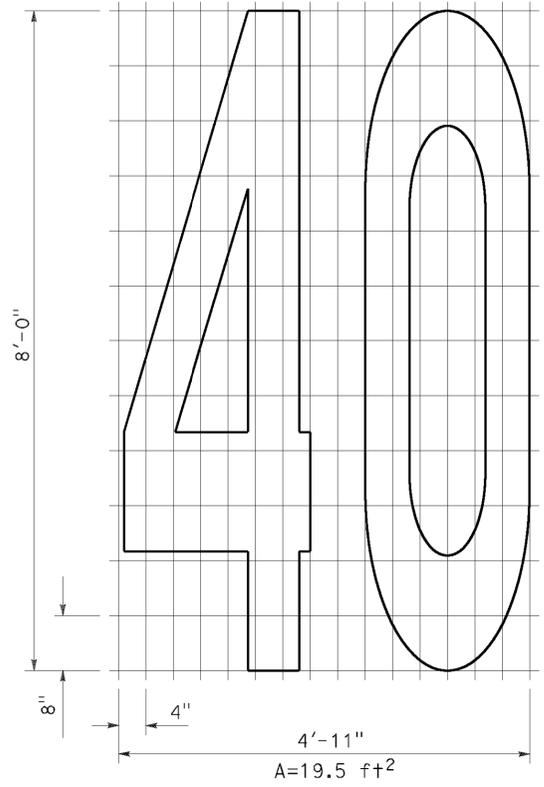
**DIAMOND SYMBOL**



**SHARED ROADWAY BICYCLE MARKING**



**NUMERALS**



**BICYCLE LOOP DETECTOR SYMBOL**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS SYMBOLS AND NUMERALS**  
 NO SCALE  
 RSP A24C DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A24C DATED MAY 20, 2011 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2010.

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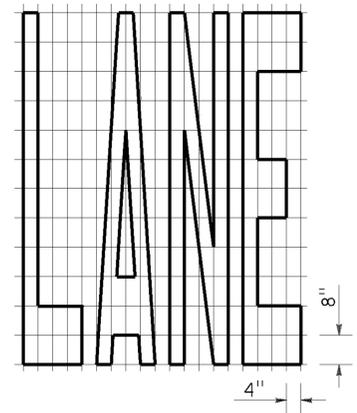
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	24	30

Registered Professional Engineer  
 Roberta L. McLaughlin  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

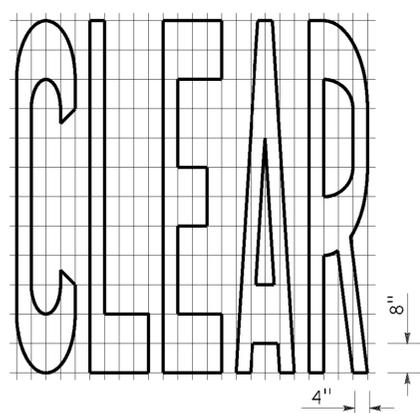
July 20, 2012  
 PLANS APPROVAL DATE

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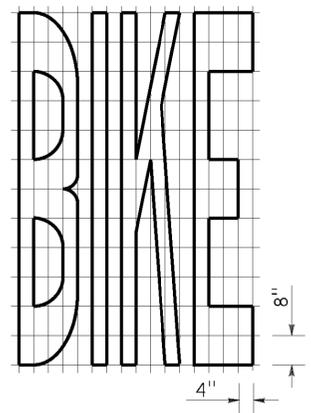
TO ACCOMPANY PLANS DATED 12-21-15



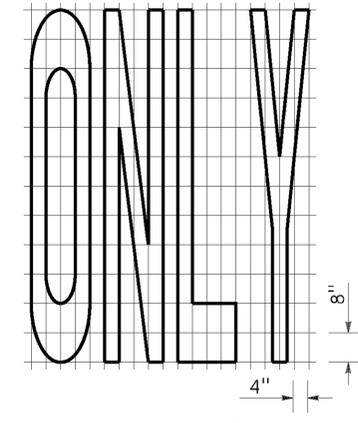
A=24 ft<sup>2</sup>



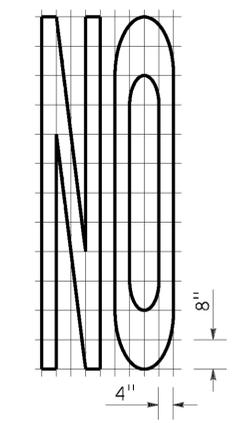
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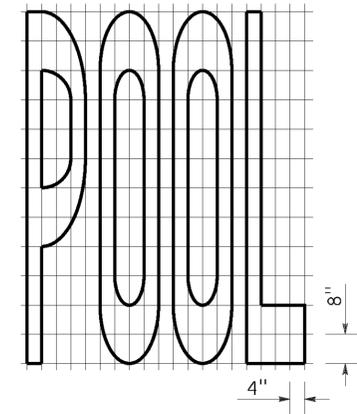
A=21 ft<sup>2</sup>



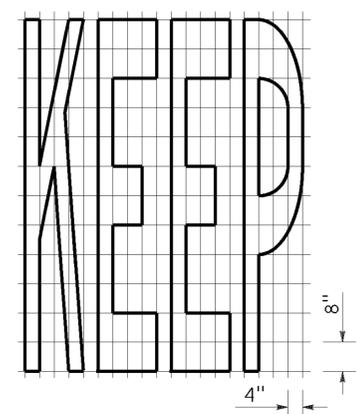
A=22 ft<sup>2</sup>



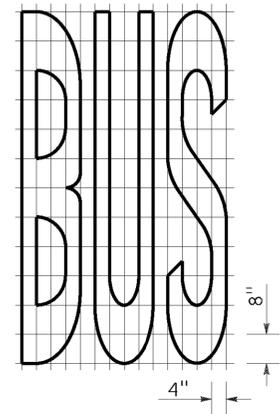
A=14 ft<sup>2</sup>



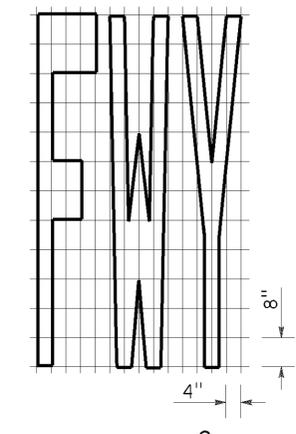
A=23 ft<sup>2</sup>



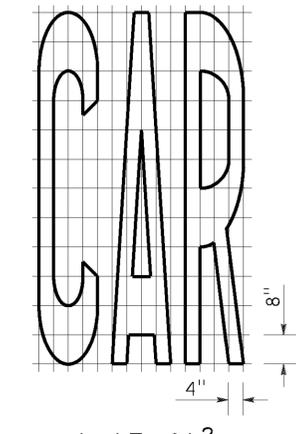
A=24 ft<sup>2</sup>



A=20 ft<sup>2</sup>

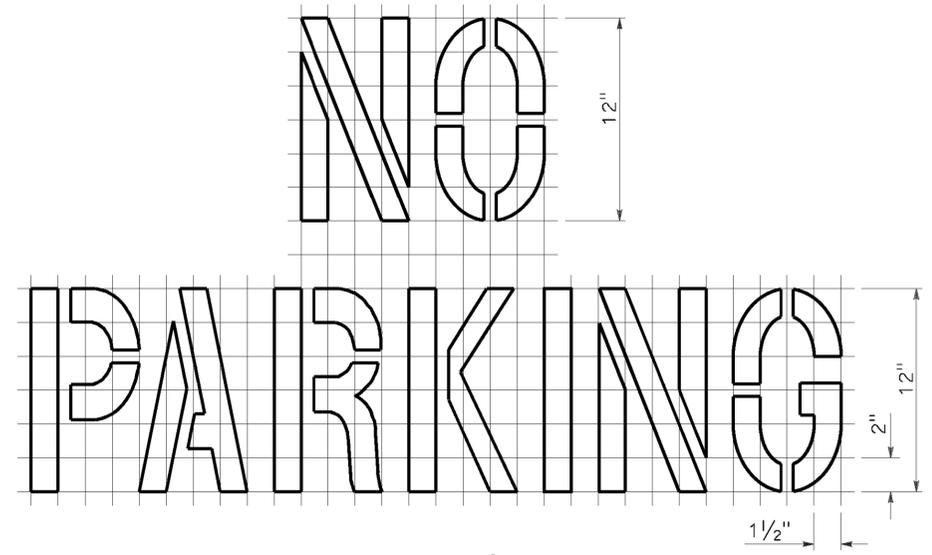


A=16 ft<sup>2</sup>

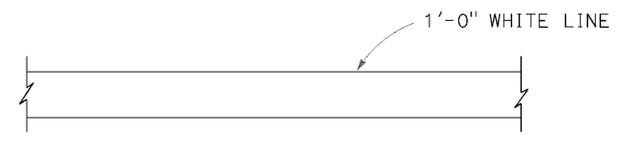


A=17 ft<sup>2</sup>

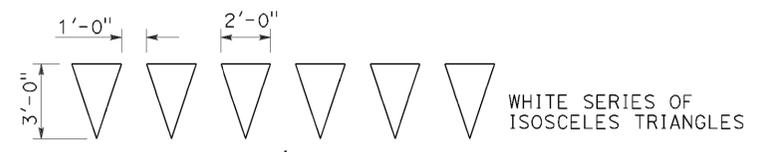
WORD MARKINGS			
ITEM	ft <sup>2</sup>	ITEM	ft <sup>2</sup>
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft<sup>2</sup>  
See Notes 6 and 7



LIMIT LINE (STOP LINE)



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.

**REVISED STANDARD PLAN RSP A24E**

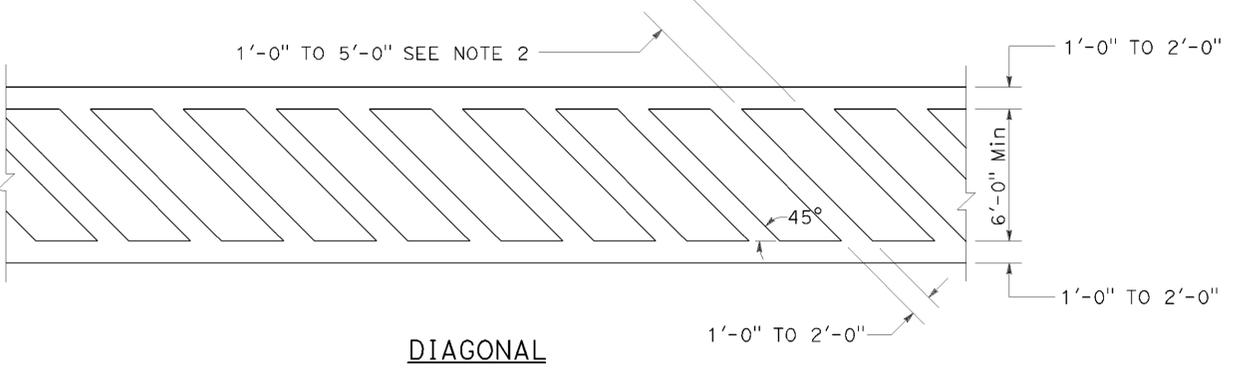
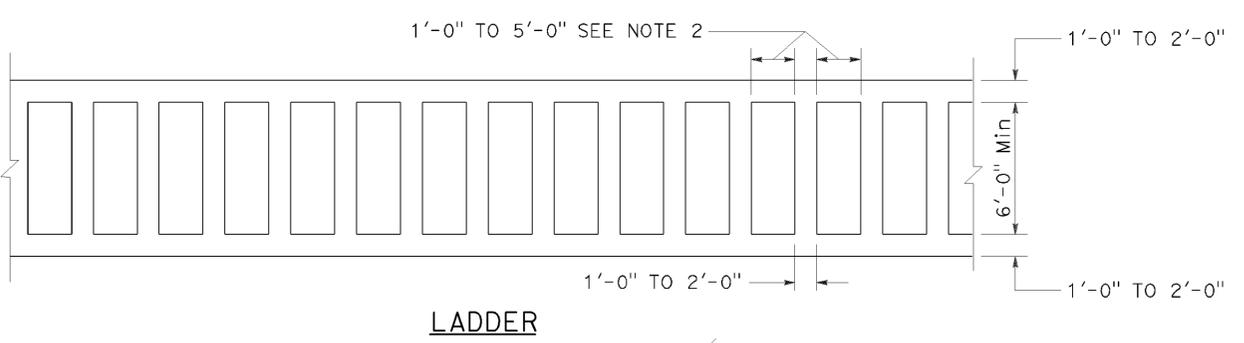
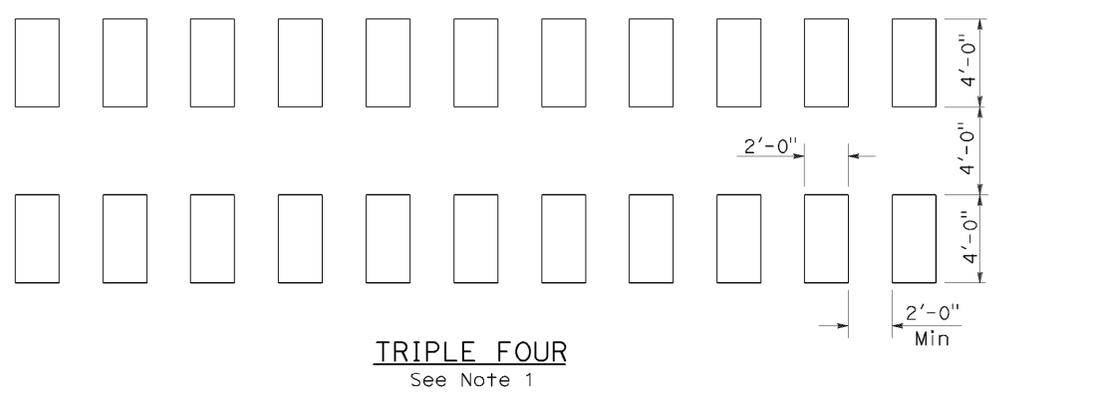
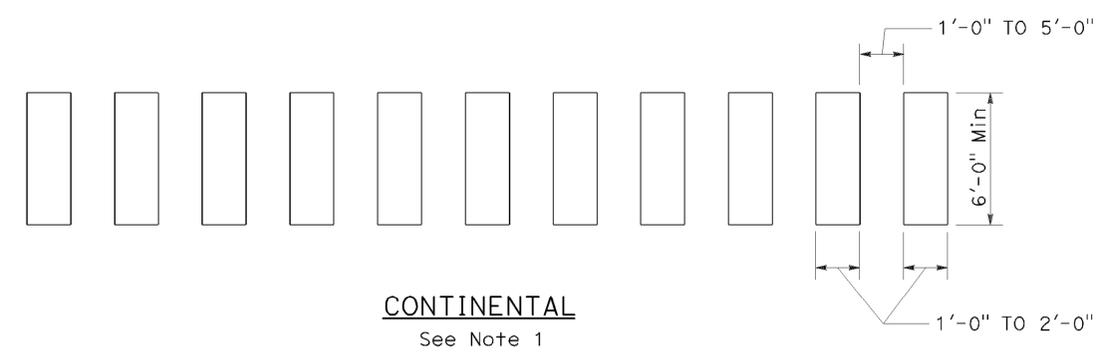
P:\PROJ\01\De520\drft\ing\Sheets\vo005.dgn

2010 REVISED STANDARD PLAN RSP A24E

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	25	30

*Roberta L. McLaughlin*  
 REGISTERED CIVIL ENGINEER  
 July 20, 2012  
 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.

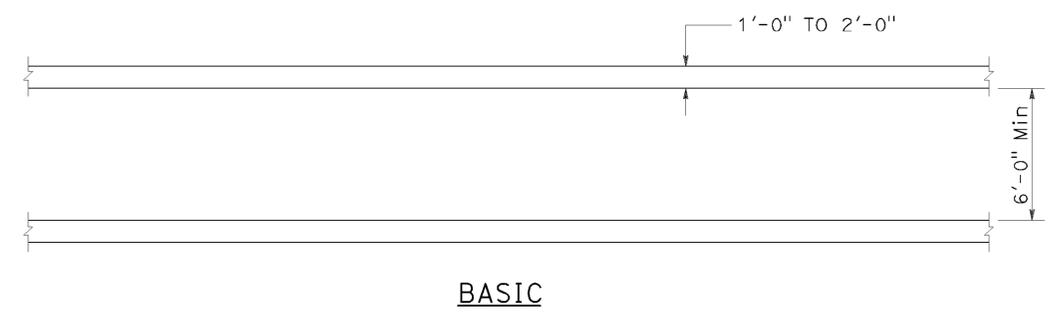
TO ACCOMPANY PLANS DATED 12-21-15



**HIGHER VISIBILITY CROSSWALKS**

**NOTES:**

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.



**BASIC**

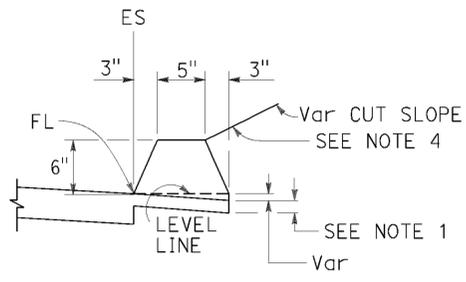
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
CROSSWALKS**

NO SCALE  
RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE  
STANDARD PLANS BOOK DATED 2010.

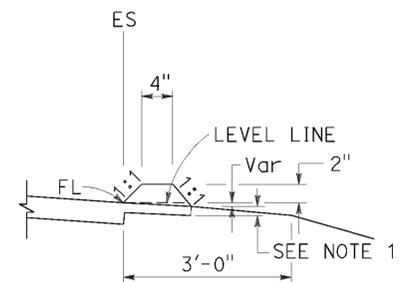
**REVISED STANDARD PLAN RSP A24F**

**2010 REVISED STANDARD PLAN RSP A24F**

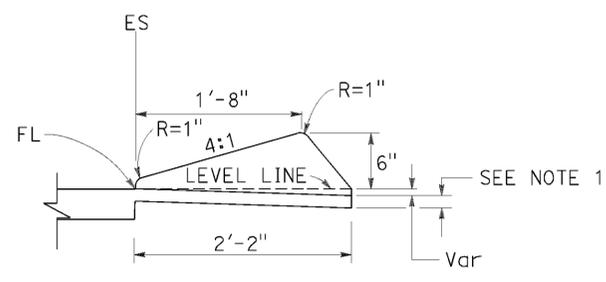
TO ACCOMPANY PLANS DATED 12-21-15



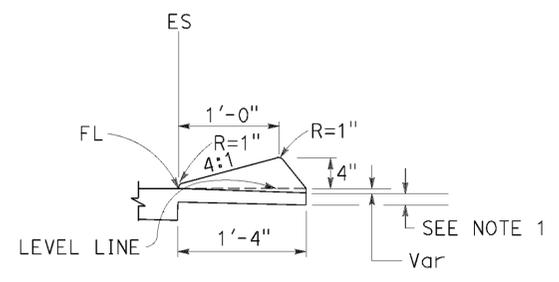
**TYPE A**  
See Note 3



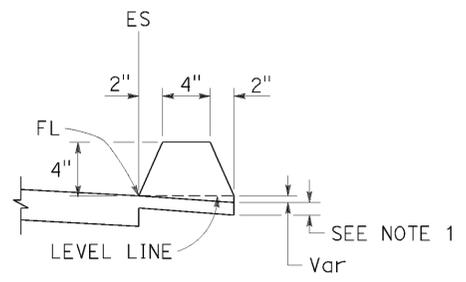
**TYPE C**



**TYPE D**

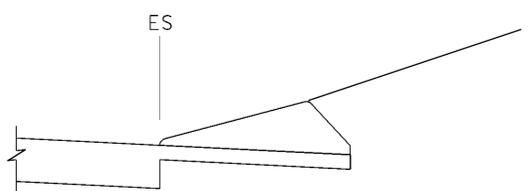


**TYPE E**

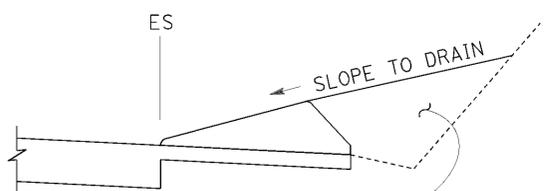


**TYPE F**  
See Note 5

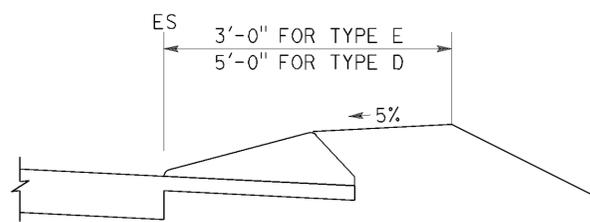
**DIKES**



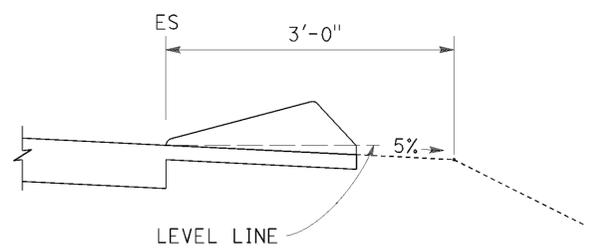
**CASE C-1**  
Cut Slope



**CASE C-2**  
Cut Slope



**CASE F**



**CASE R**  
See Note 2

**TYPE D AND E BACKFILL DETAILS**

**NOTES:**

1. For HMA shoulders only, extend top layer of HMA placed on the shoulder under dike with no joint at the ES. For projects with OGFC shoulders, do not extend OGFC under dike. See project plans for modified dike detail.
2. Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
3. Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
4. Fill and compact with excavated material to top of dike.
5. Use Type F dike, where dike is required with guard railing installations. See Revised Standard Plan RSP A77N4 for dike positioning details.

**DIKE QUANTITIES**

TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0293
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**HOT MIX ASPHALT DIKES**

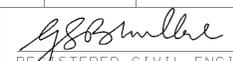
NO SCALE

RSP A87B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87B  
DATED MAY 20, 2011 - PAGE 120 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A87B**

2010 REVISED STANDARD PLAN RSP A87B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	27	30

  
 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 12-21-15

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.

**REVISED STANDARD PLAN RSP T9**

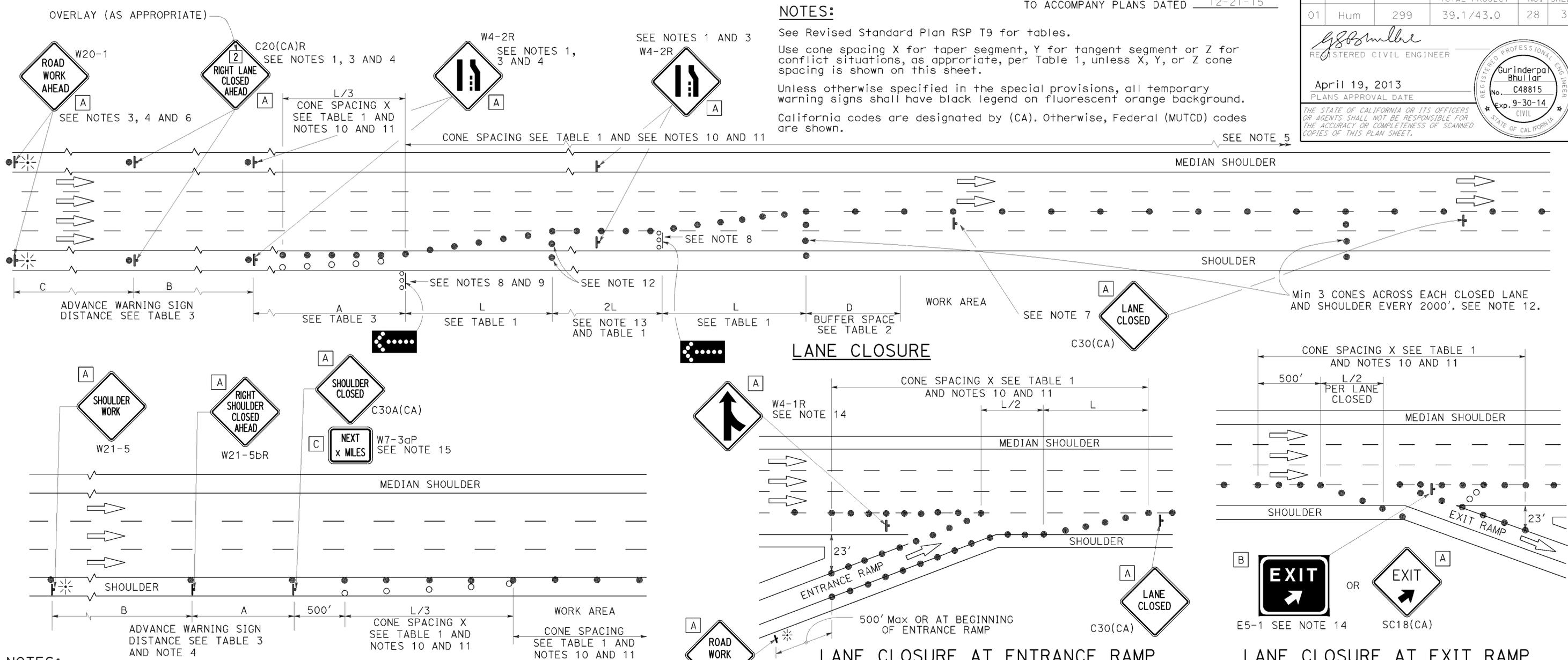
2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	28	30

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.



**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.

- 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.

- SHOULDER CLOSURE**
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)L and W4-2L signs shall be used.
  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"

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURE ON  
 FREEWAYS AND EXPRESSWAYS**

NO SCALE

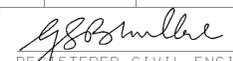
RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T10**

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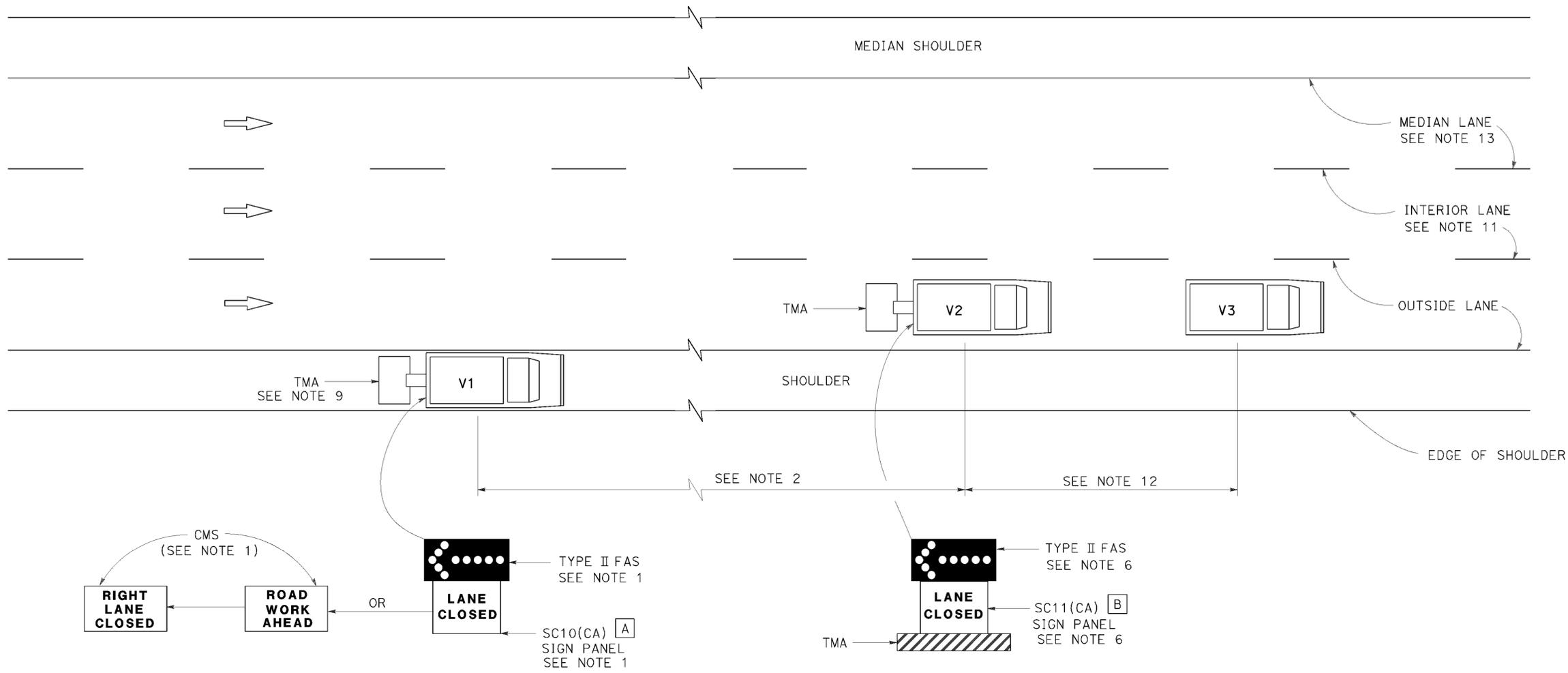
2010 REVISED STANDARD PLAN RSP T10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	39.1/43.0	29	30

  
 REGISTERED CIVIL ENGINEER  
 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.



TO ACCOMPANY PLANS DATED 12-21-15



**SIGN PANEL SIZE (Min)**

- A 66" x 36"
- B 54" x 42"

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
-  FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

**MOVING LANE CLOSURE ON MEDIAN LANE OR OUTSIDE LANE OF MULTILANE HIGHWAYS**

**NOTES:**

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS**

NO SCALE

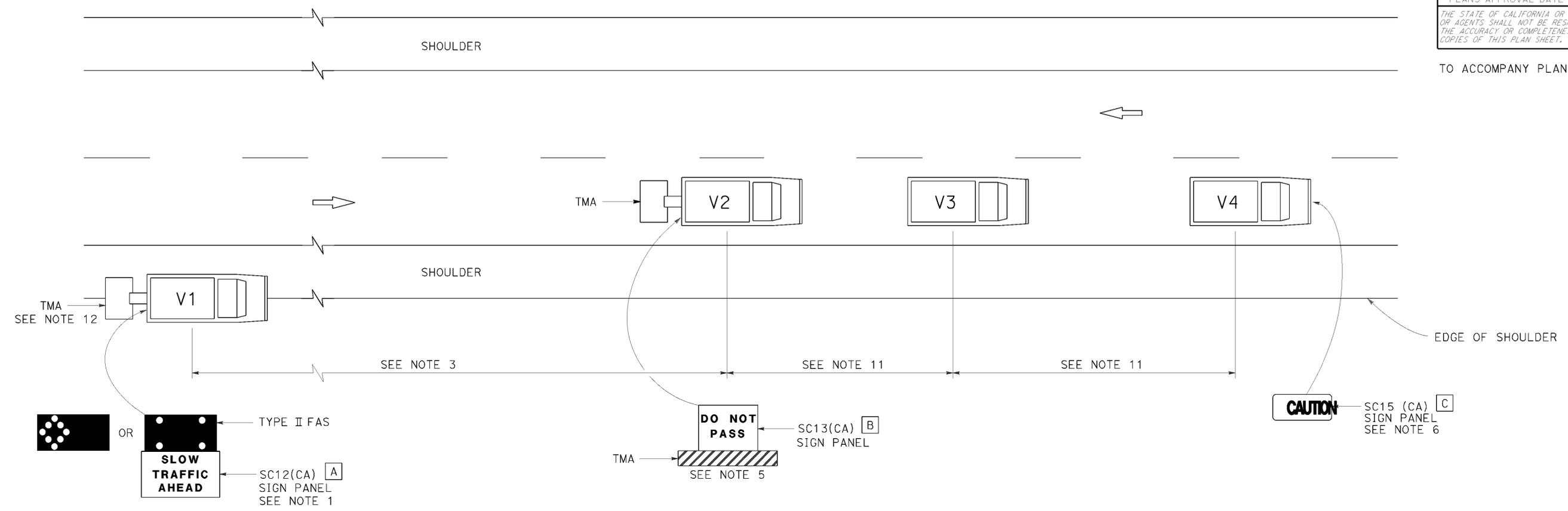
RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15 DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T15**

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2010 REVISED STANDARD PLAN RSP T15

TO ACCOMPANY PLANS DATED 12-21-15



**NOTES:**

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.

7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- V4 SIGN VEHICLE
- TMA TRUCK-MOUNTED ATTENUATOR
- FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE
- FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

**SIGN PANEL SIZE (Min)**

- A 72" x 42"
- B 54" x 42"
- C 54" x 24"

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR MOVING LANE CLOSURE  
 ON TWO LANE HIGHWAYS**  
 NO SCALE

RSP T17 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T17  
 DATED MAY 20, 2011 - PAGE 245 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T17**

2010 REVISED STANDARD PLAN RSP T17