

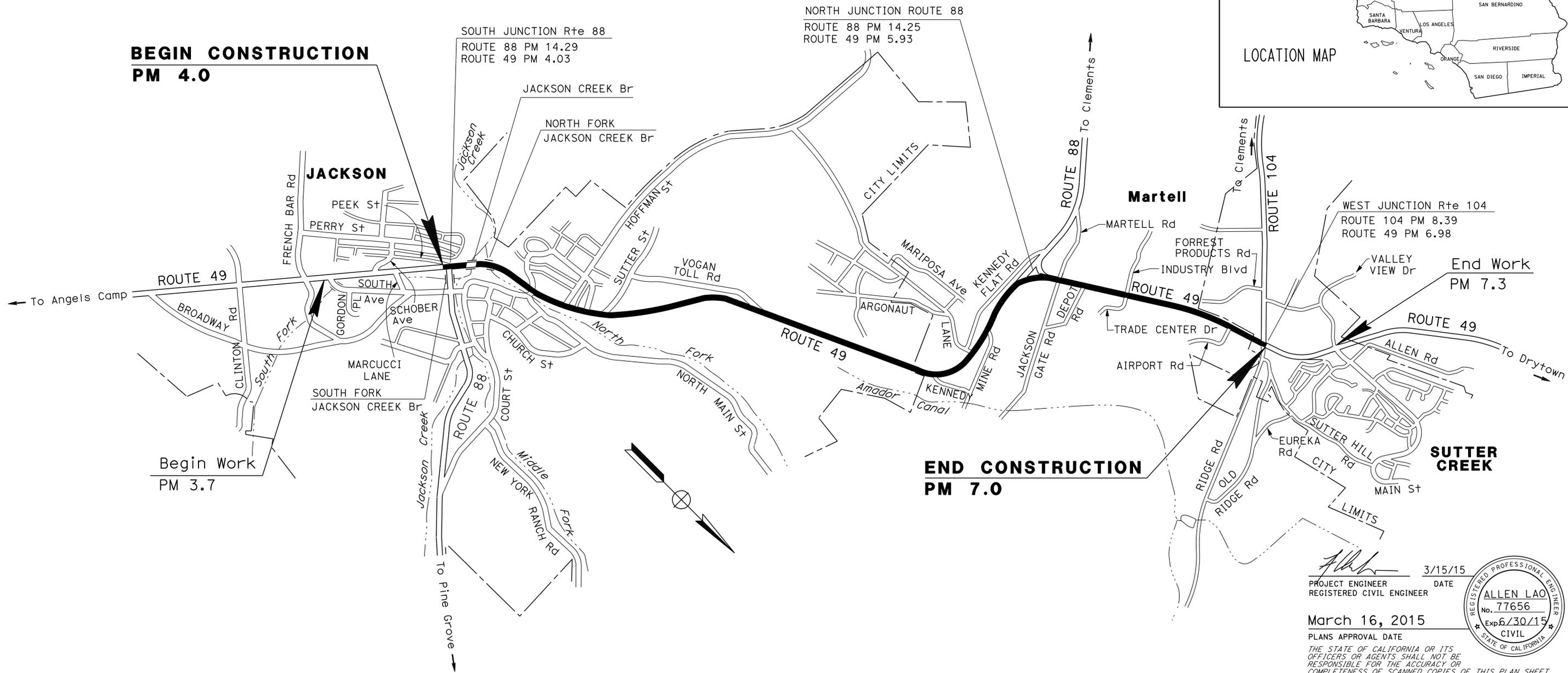
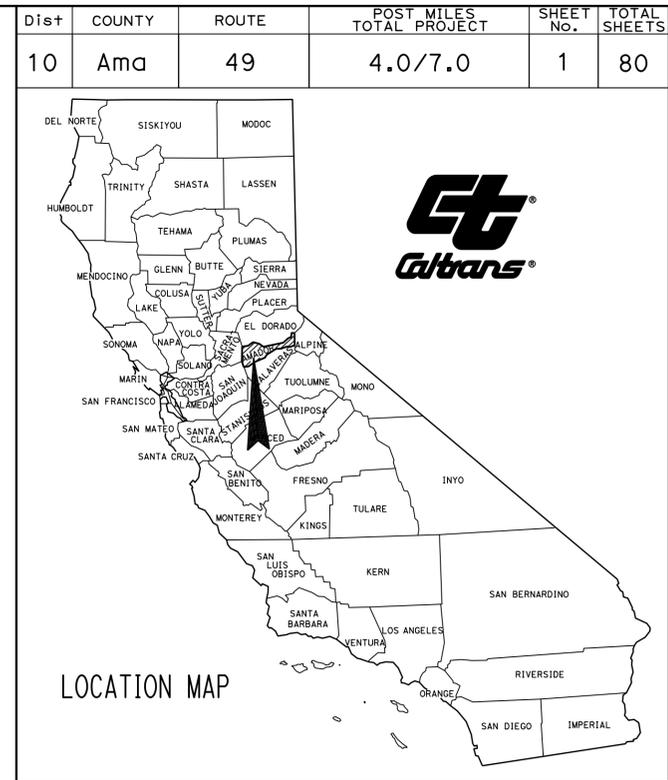
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-4	TYPICAL CROSS SECTIONS
5-26	CONSTRUCTION DETAILS
27	CONSTRUCTION AREA SIGNS
28-35	PAVEMENT DELINEATION AND SIGN QUANTITIES, PLANS, AND DETAILS
36-37	SUMMARY OF QUANTITIES
38-45	ELECTRICAL PLANS
46-80	REVISED STANDARD PLANS

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

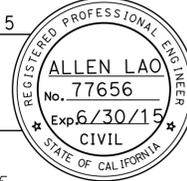
STATE OF CALIFORNIA **ACSTP-P049(166)E**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN AMADOR COUNTY
IN AND NEAR JACKSON
FROM SOUTH JUNCTION ROUTE 88
TO WEST JUNCTION ROUTE 104

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER	SINARATH PHENG
DESIGN ENGINEER	JOSE A. HUERTA

PROJECT ENGINEER REGISTERED CIVIL ENGINEER
 DATE 3/15/15
 March 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.



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

NO SCALE

DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Am	49	4.0/7.0	2	80

REGISTERED CIVIL ENGINEER	DATE
<i>Allen Lao</i>	3/15/15
PLANS APPROVAL DATE	
	3-16-15

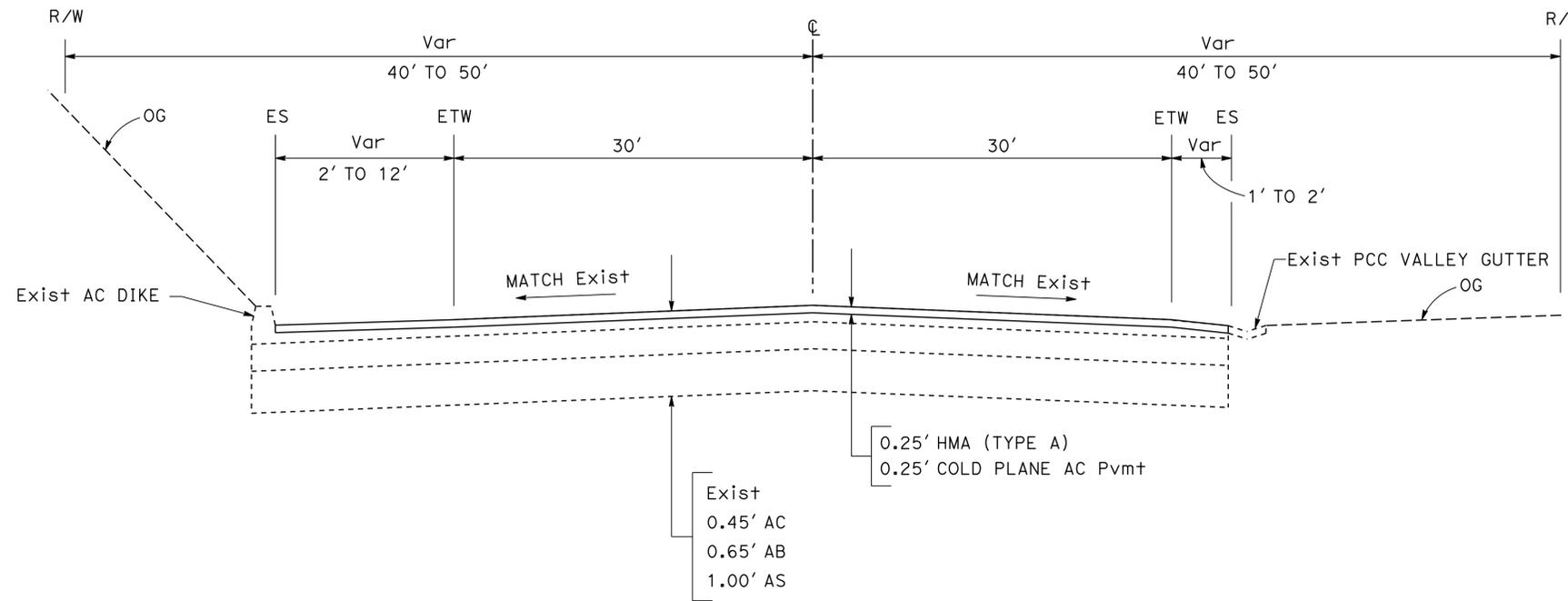
REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
No. 77656
Exp. 6/30/15
CIVIL
STATE OF CALIFORNIA

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.

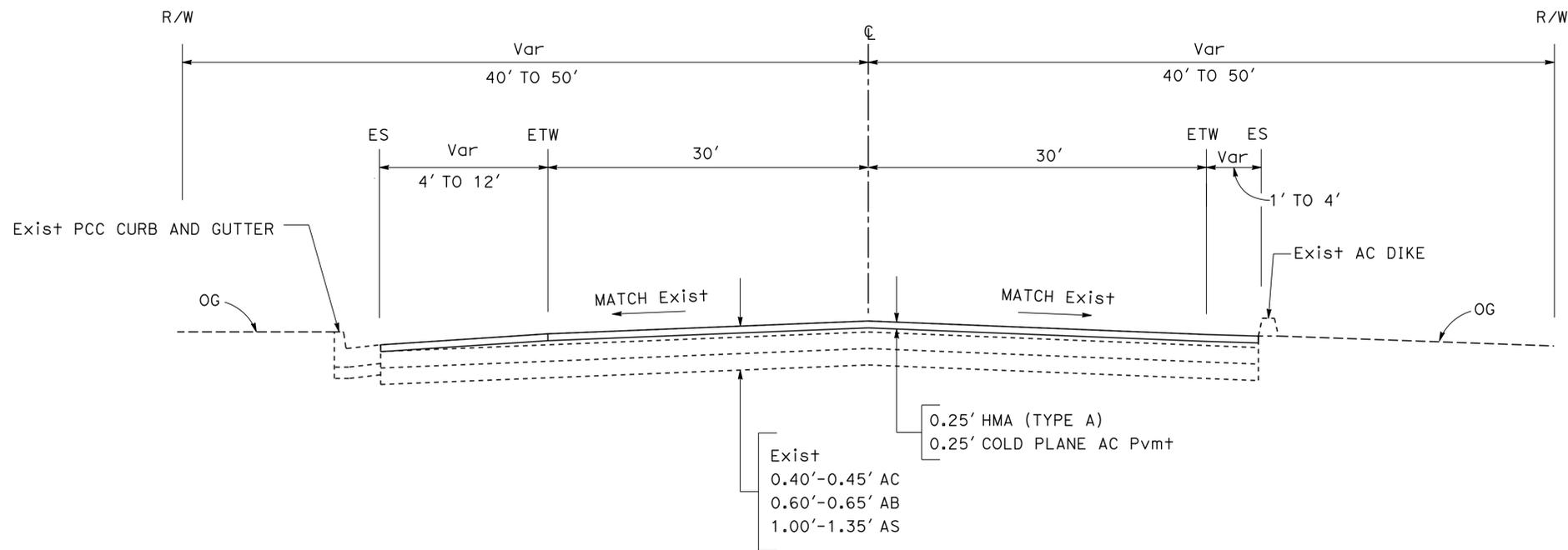
NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
4. FOR HMA DIKE LOCATIONS, SEE SUMMARY OF QUANTITIES.
5. FOR SAFETY EDGE LOCATIONS, SEE SUMMARY OF QUANTITIES.
6. FOR REPLACE AC SURFACING DIMENSIONS AND LOCATIONS, SEE SUMMARY OF QUANTITIES.

PAVEMENT CLIMATE REGION
INLAND VALLEY



PM 4.2/4.3
ROUTE 49



PM 4.0/4.2
PM 4.6/4.7
ROUTE 49

TYPICAL CROSS SECTIONS
NO SCALE
X-1

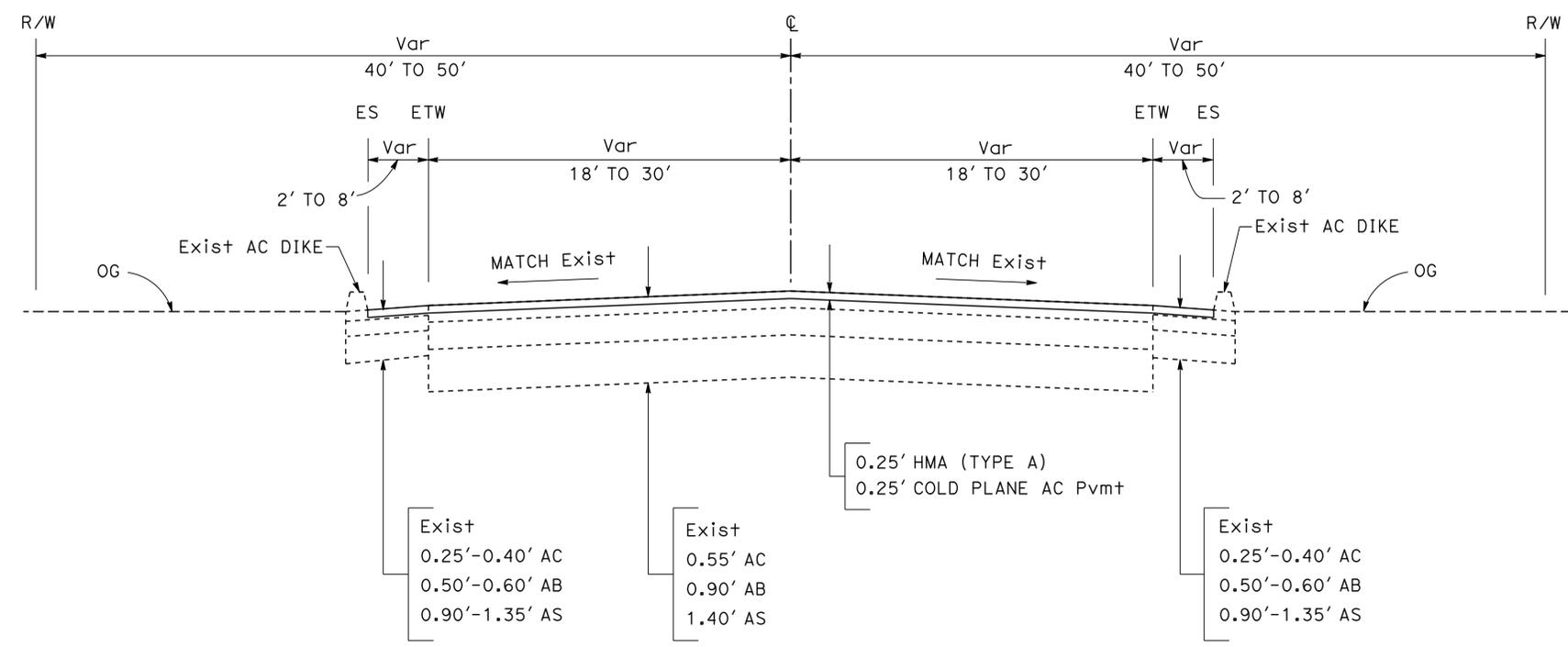
SARAVUTH PHIN	02-20-15
REVISOR	DATE
PERLITA BALBIN	ALLEN LAO
CHECKED BY	DESIGNED BY
JOSE A. HUERTA	
FUNCTIONAL SUPERVISOR	
DESIGN	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	3	80

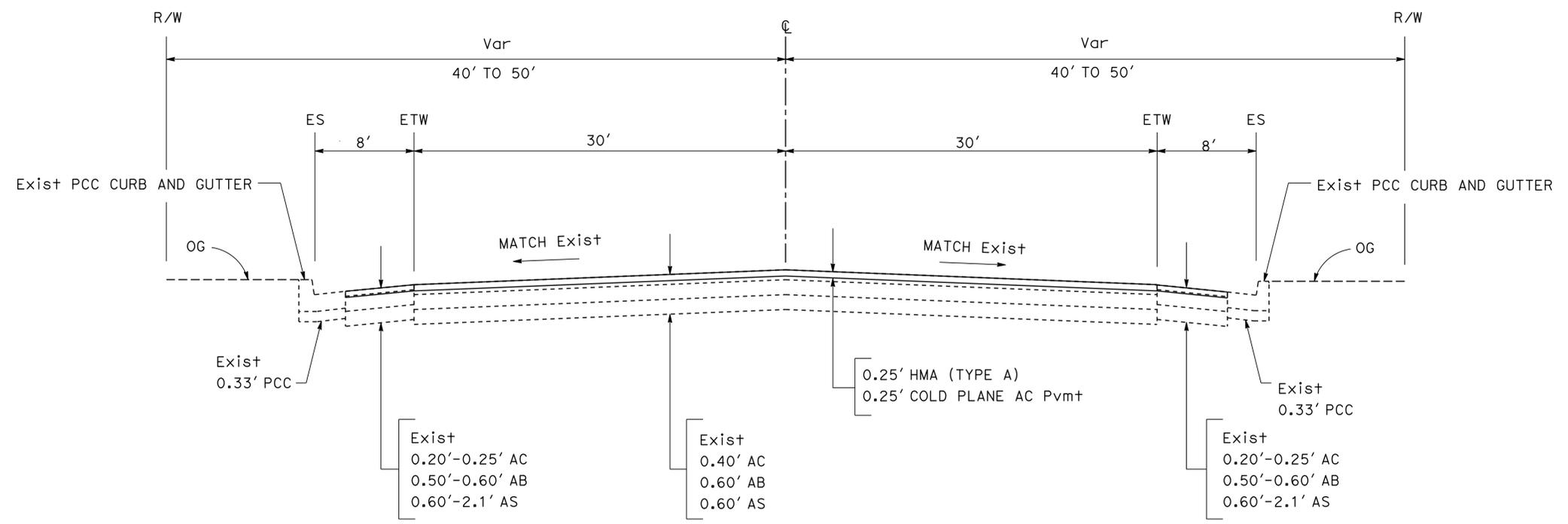
<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
 No. 77656
 Exp. 6/30/15
 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.



PM 4.7/6.0
 PM 6.1/6.3
ROUTE 49



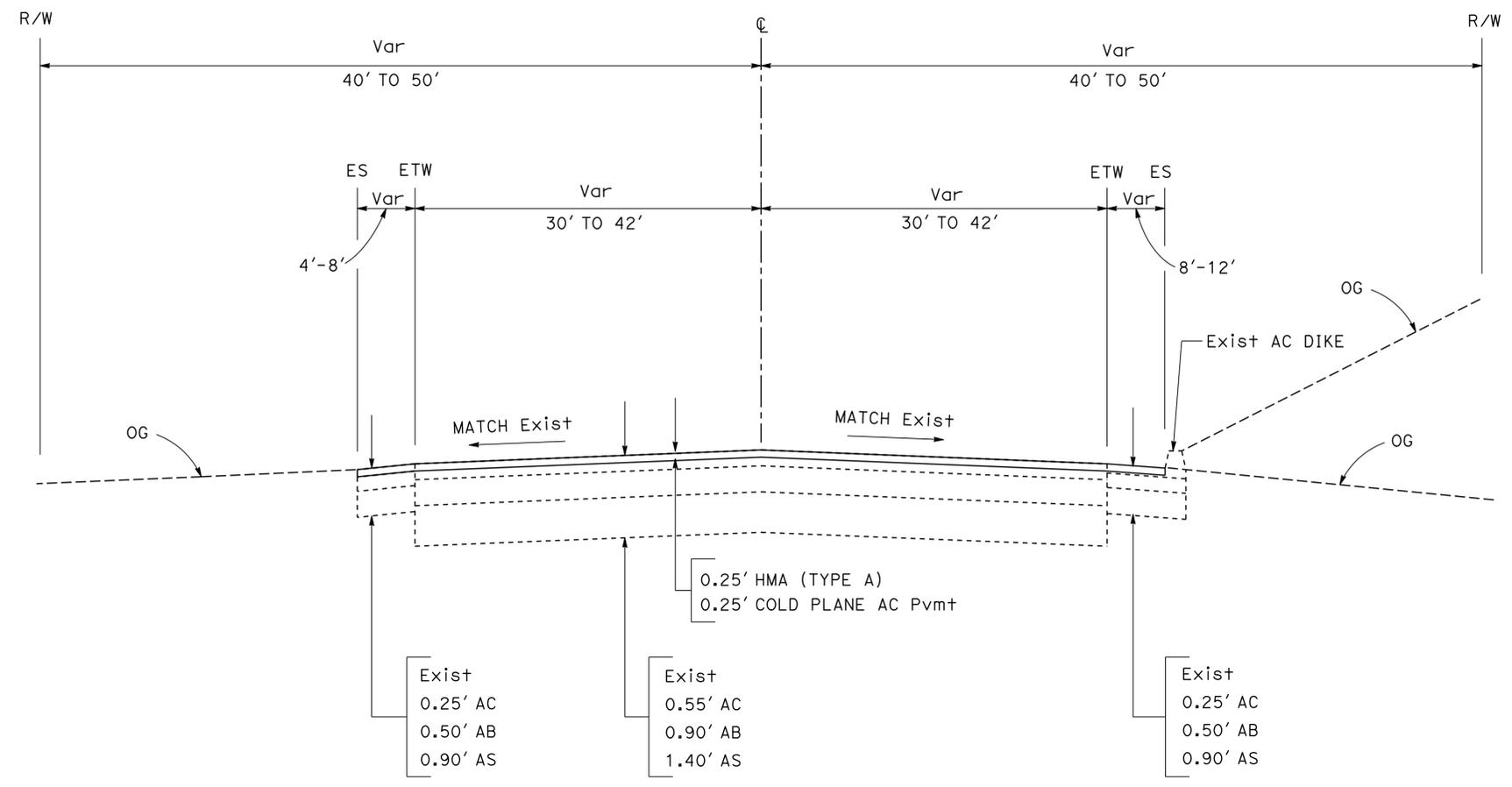
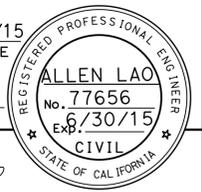
PM 4.3/4.6
 PM 6.0/6.1
ROUTE 49

TYPICAL CROSS SECTIONS
 NO SCALE
X-2

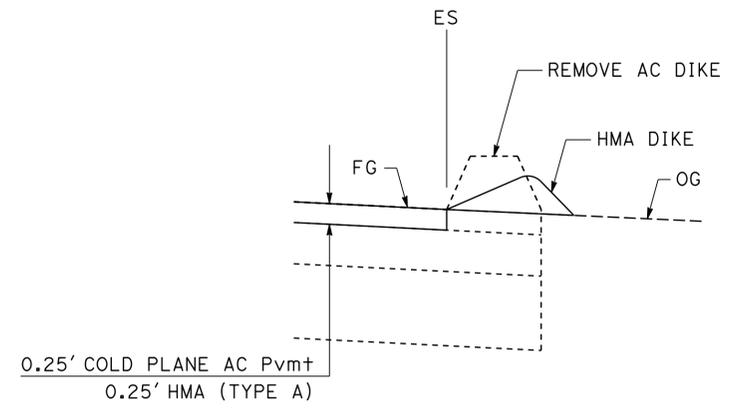
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans		JOSE A. HUERTA	SARAVUTH PHIN	02-20-15
			PERLITA BALBIN	
			ALLEN LAO	
		CALCULATED-DESIGNED BY	CHECKED BY	

LAST REVISION DATE PLOTTED BY TIME PLOTTED BY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amg	49	4.0/7.0	4	80
			REGISTERED CIVIL ENGINEER	DATE	3/15/15
			PLANS APPROVAL DATE	3-16-15	
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.					



PM 6.3/7.0
ROUTE 49



(FOR HMA DIKE TYPE AND LOCATIONS SEE TABLE IN SUMMARY OF QUANTITIES)
PLACE HMA DIKE

TYPICAL CROSS SECTIONS
NO SCALE **X-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
CALCULATED/DESIGNED BY	CHECKED BY
PERLITA BALBIN	ALLEN LAO
REVISOR	DATE
SARAVUTH PHIN	02-20-15

LAST REVISION DATE PLOTTED => 29-JUN-2015 02-20-15 TIME PLOTTED => 09:14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 JOSE A. HUERTA
 CALCULATED-DESIGNED BY
 CHECKED BY
 SARAVUTH PHIN
 ALLEN LAO
 REVISED BY
 DATE REVISED
 SARAVUTH PHIN
 02-20-15

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- FOR HMA DIKE TYPES AND LOCATIONS, SEE SUMMARY OF QUANTITIES.
- FOR MGS LOCATIONS, SEE SUMMARY OF QUANTITIES.
- FOR SAFETY EDGE LOCATIONS, SEE SUMMARY OF QUANTITIES.
- COORDINATE WITH CONTRACT NUMBER 10-0X1604 FOR PLACEMENT OF TRAFFIC SIGNAL DETECTOR LOOPS ON SR 49 PRIOR TO PAVING.
- UTILITY FRAME AND COVER TO BE LOWERED PRIOR TO COLD PLANING, AND ADJUSTED TO GRADE AFTER PAVING IS COMPLETE.

ABBREVIATIONS:

AT&T-AMERICAN TELEPHONE AND TELEGRAPH
 AMA-ARCHAEOLOGICAL MONITORING AREA
 DWS-DETECTABLE WARNING SURFACE

LEGEND:

- 0.25' COLD PLANE AC PvmT
0.25' HMA (TYPE A)
- BACKFILL
- MINOR CONCRETE
- REPLACE AC SURFACING
- DETECTABLE WARNING SURFACE

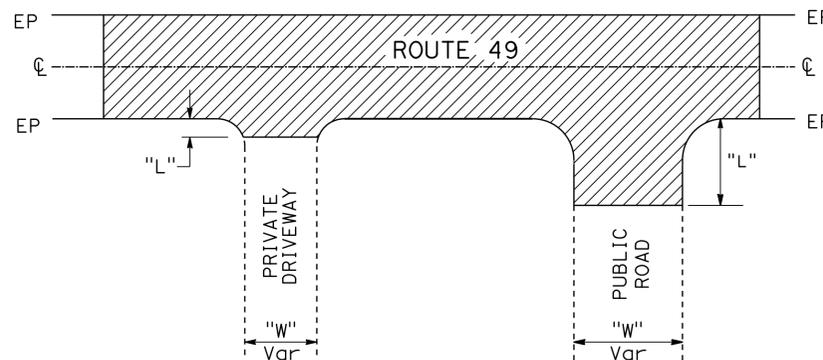
DRIVEWAY INTERSECTIONS

PM	SIDE	LENGTH	WIDTH
4.06	L+	5'	44'
4.19	L+	5'	40'
4.21	L+	20'	30'
4.37	L+	7'	15'
4.39	L+	5'	12'
4.45	L+	8'	10'
4.73	R+	20'	35'
4.75	R+	20'	51'
4.75	L+	8'	33'
4.77	L+	5'	40'
4.79	R+	10'	60'
4.79	L+	5'	30'
4.81	R+	5'	44'
4.81	L+	5'	44'
4.82	L+	5'	33'
4.85	L+	5'	45'
4.86	R+	10'	45'
4.86	L+	5'	45'
5.68	R+	10'	70'
5.70	L+	5'	60'
5.72	R+	15'	30'
6.03	R+	10'	25'
6.05	L+	28'	30'
6.06	R+	10'	20'
6.08	L+	20'	30'
6.10	L+	10'	65'
6.19	L+	10'	30'
6.23	R+	10'	40'
6.51	R+	12'	90'
6.81	L+	20'	23'
6.86	L+	20'	23'
6.87	R+	25'	35'
6.94	R+	10'	30'
6.94	L+	10'	30'
6.95	R+	5'	45'

DRIVEWAY WIDTH AND LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS AND WIDTHS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

UNSIGNALIZED PUBLIC ROAD INTERSECTIONS

PUBLIC ROAD	PM	SIDE	LENGTH	WIDTH
PEEK St	4.00	L+	10'	20'
MATTLEY St	4.32	L+	15'	30'
HOFFMAN St	4.41	L+	15'	55'
REX AVE	4.45	L+	10'	10'
VOGAN TOLL Rd	5.03	L+	10'	30'
KENNEDY MINE Rd	5.55	R+	10'	34'
ARGONAUT LANE	5.70	L+	10'	75'
DEPOT Rd	6.15	R+	10'	40'
AIRPORT Rd	6.81	R+	10'	75'

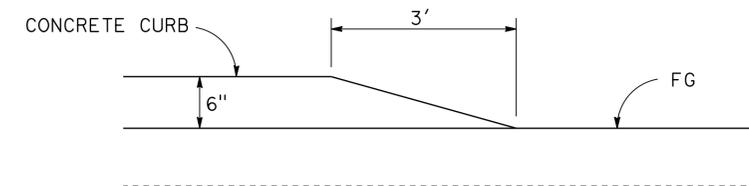


SEE TABLES FOR UNSIGNALIZED PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS.

PAVING LIMITS AT UNSIGNALIZED PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS

TABLE OF BRIDGES

PM	DESCRIPTION
PM 4.096	JACKSON CREEK Br
PM 4.173	N FORK JACKSON CREEK Br



SEE C-11 AND C-15 FOR LOCATIONS.

ELEVATION VIEW CURB TAPER DETAIL

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	5	80

3/15/15
 REGISTERED CIVIL ENGINEER DATE
 ALLEN LAO
 No. 77656
 Exp. 6/30/15
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER
 3-16-15
 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.

CONSTRUCTION DETAILS C-1
NO SCALE

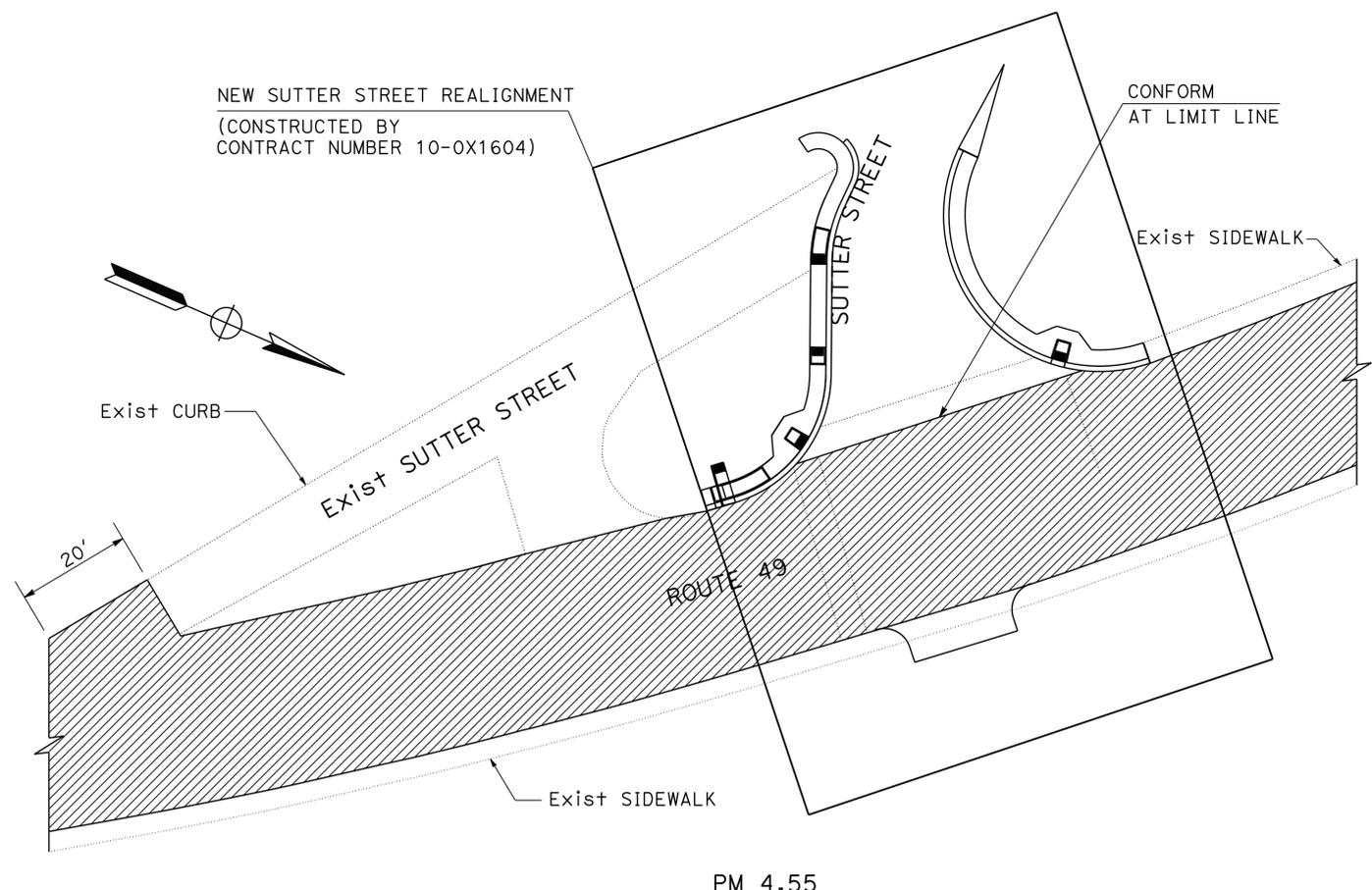
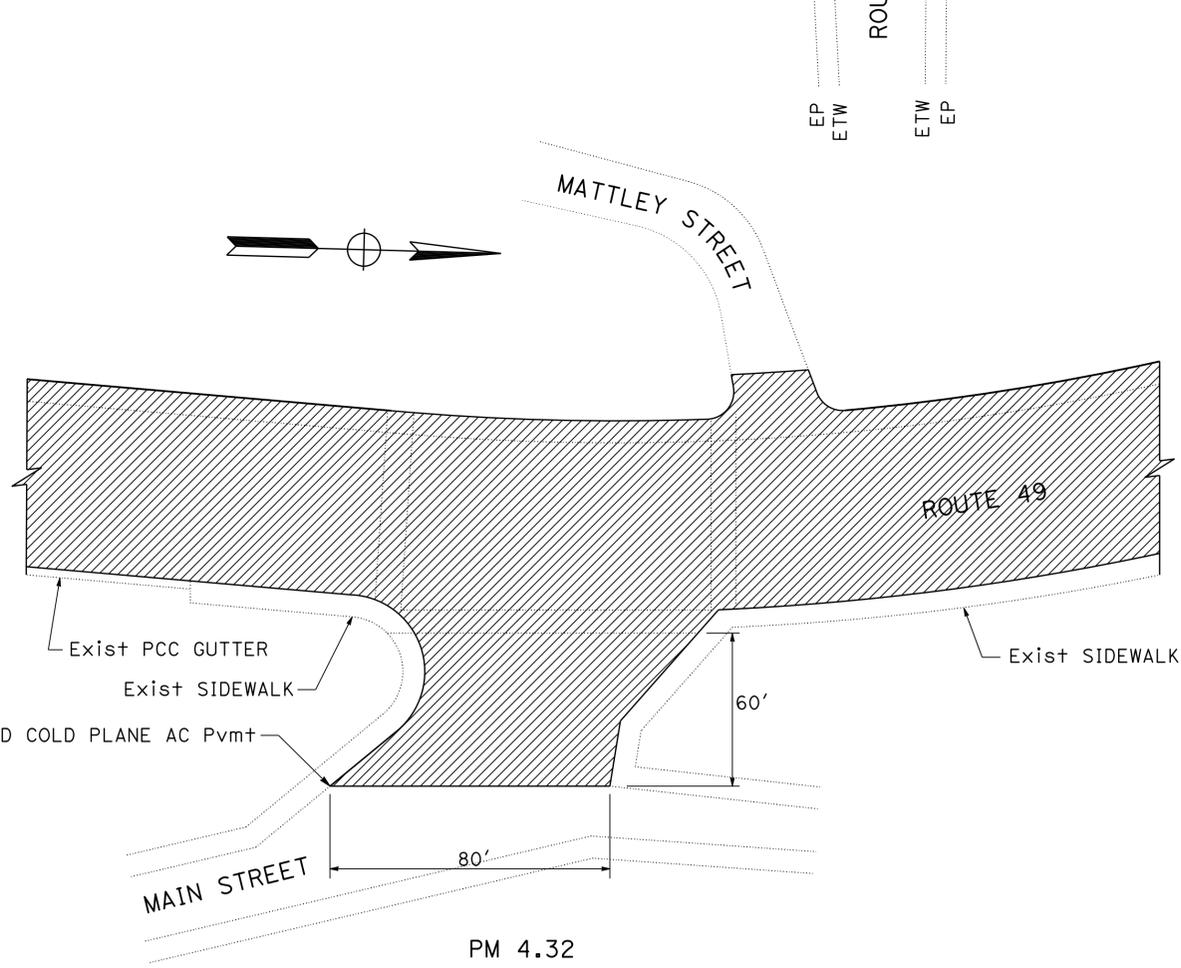
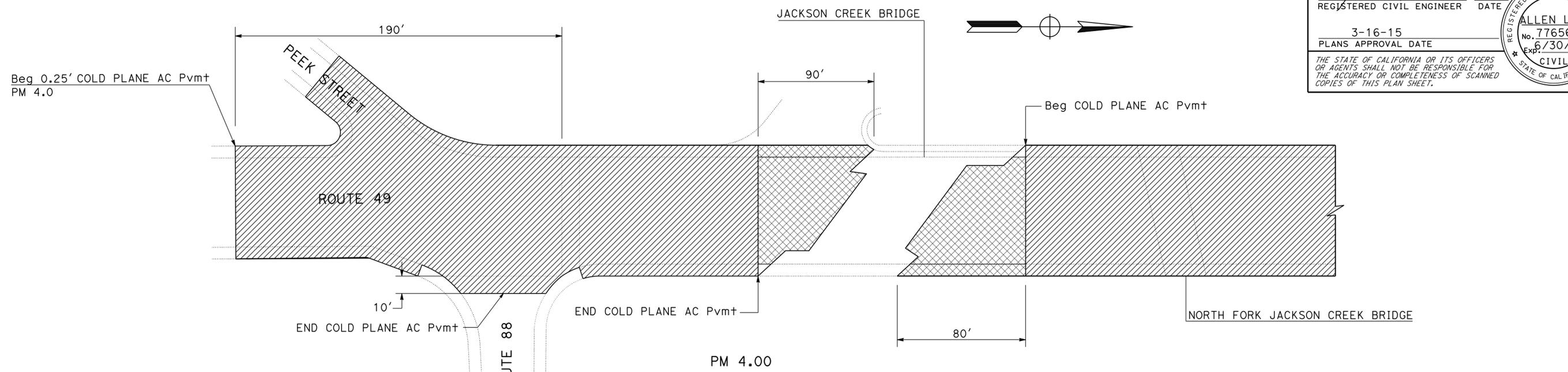


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	6	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
 No. 77656
 Exp. 6/30/15
 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.



COLD PLANING DETAILS AT SIGNALIZED INTERSECTION

CONSTRUCTION DETAILS C-2
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JOSE A. HUERTA
 CALCULATED/DESIGNED BY: PERLITA BALBIN
 CHECKED BY: ALLEN LAO
 REVISED BY: SARAVUTH PHIN
 DATE REVISED: 02-20-15

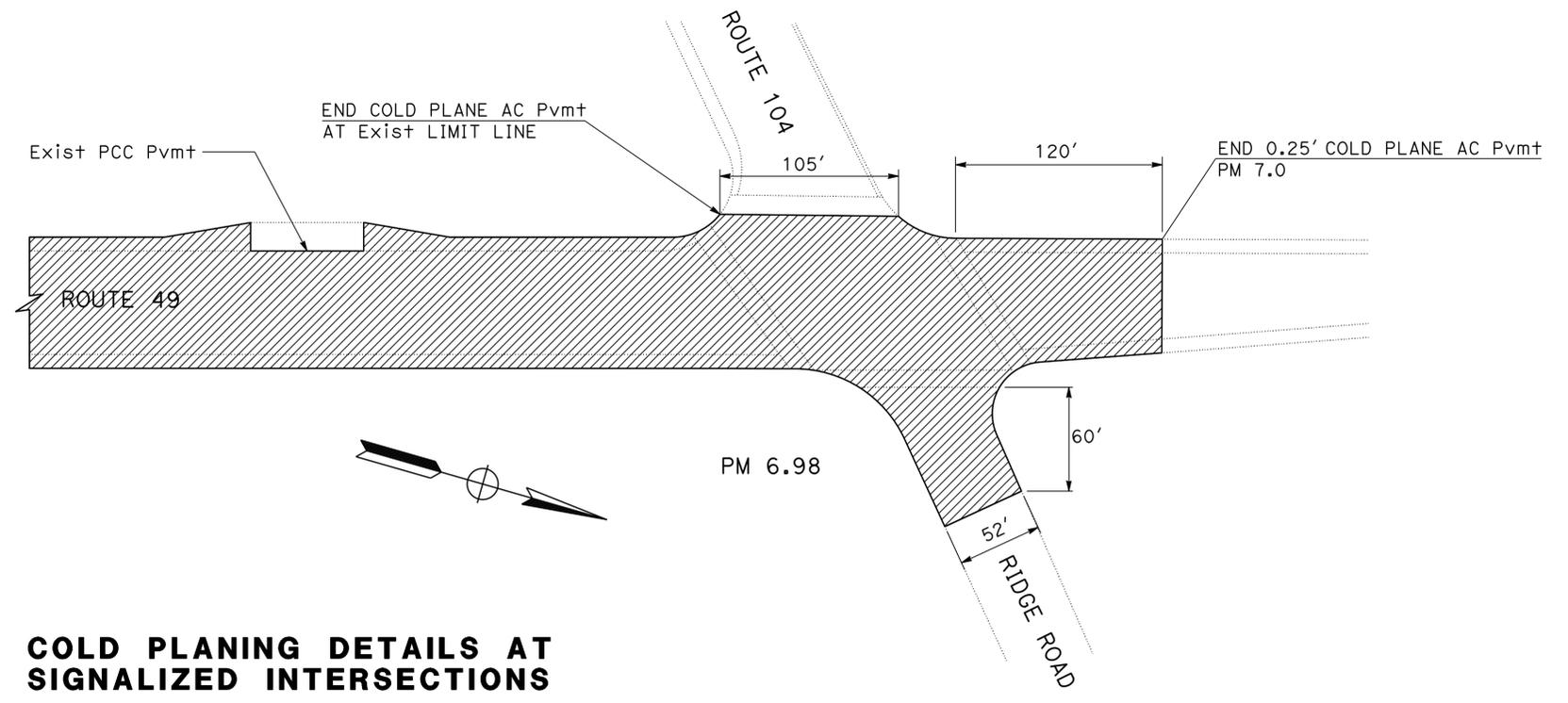
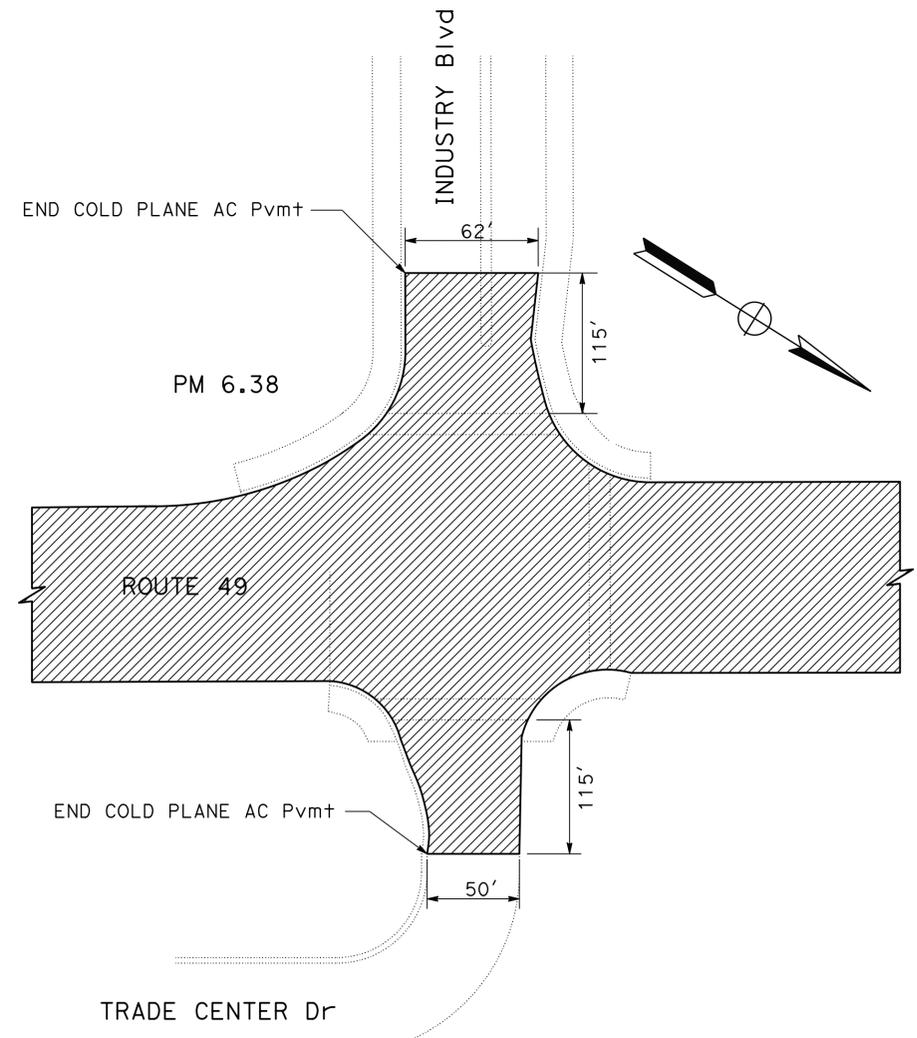
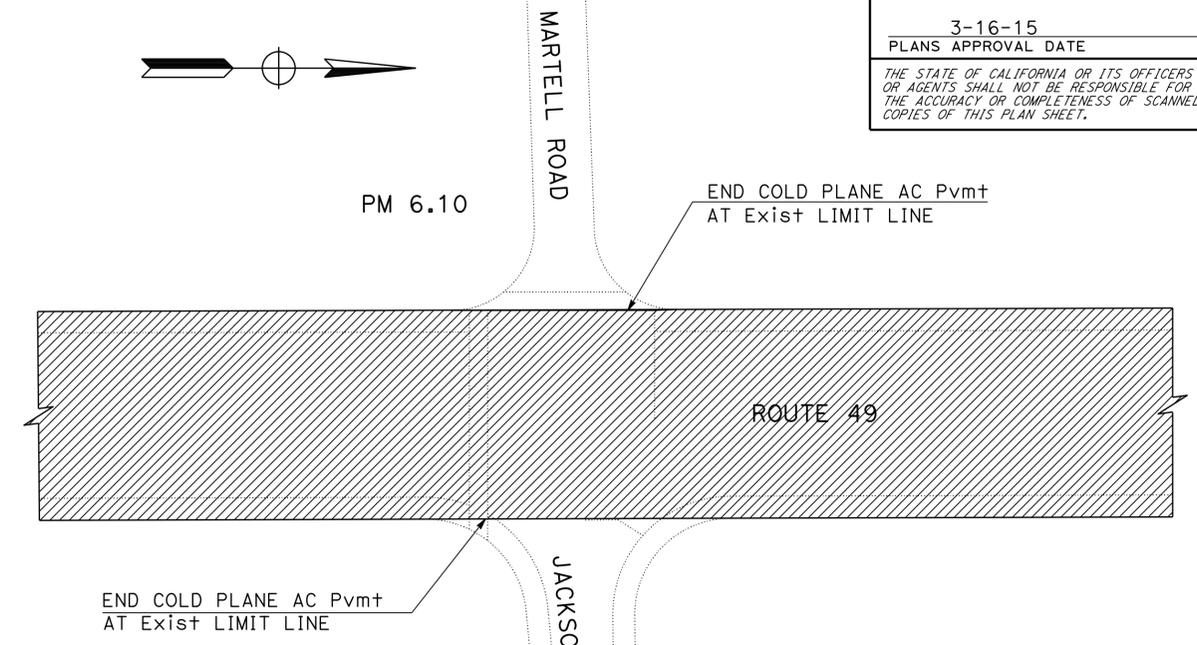
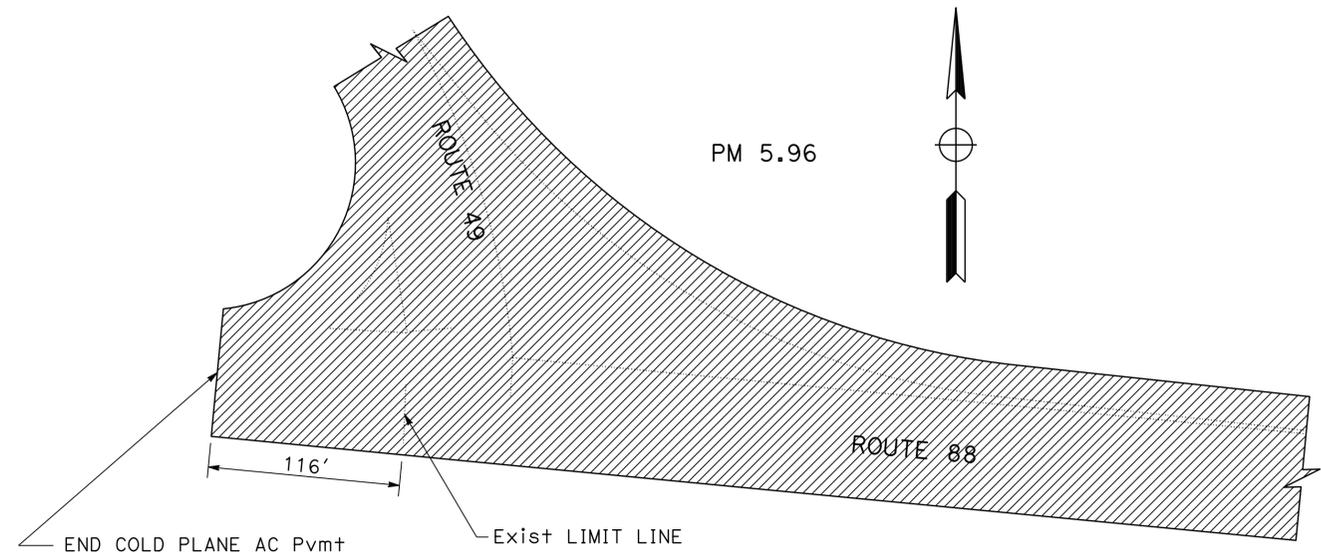
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	7	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
 No. 77656
 Exp. 6/30/15
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
		CALCULATED-DESIGNED BY	CHECKED BY
SARAVUTH PHIN	SARAVUTH PHIN	REVISOR	ALLEN LAO
		DATE	02-20-15



COLD PLANING DETAILS AT SIGNALIZED INTERSECTIONS

CONSTRUCTION DETAILS
NO SCALE **C-3**

LAST REVISION | DATE PLOTTED => 29-JUN-2015
02-20-15 TIME PLOTTED => 09:14

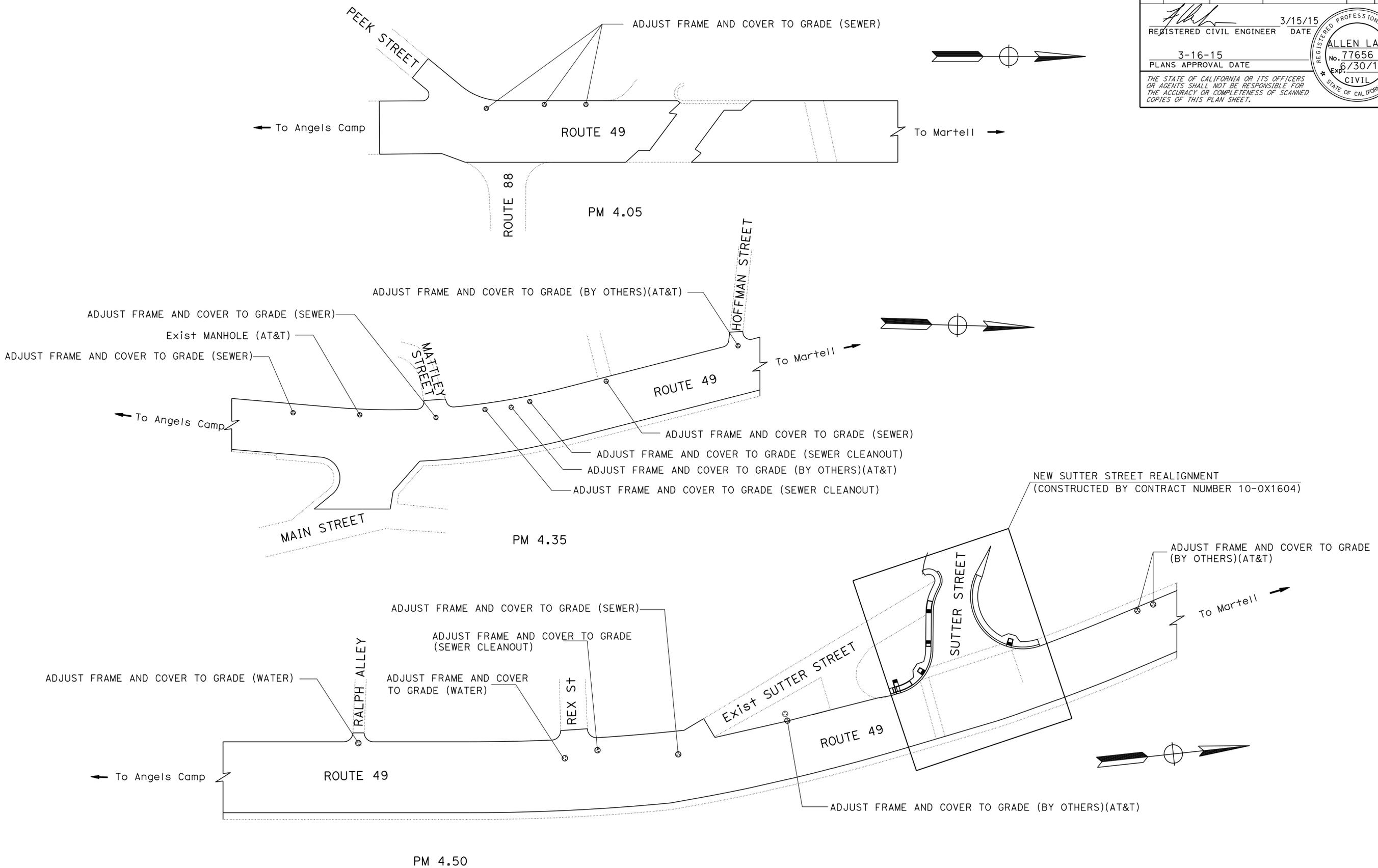
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	8	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	ALLEN LAO
No. 77656	
Exp. 6/30/15	
CIVIL	

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SARAVUTH PHIN	02-20-15
REVISOR	DATE
SARAVUTH PHIN	ALLEN LAO
CALCULATED/DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Caltrans	



ADJUST FRAME AND COVER TO GRADE LOCATIONS

CONSTRUCTION DETAILS
NO SCALE
C-4

LAST REVISION DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 09:14

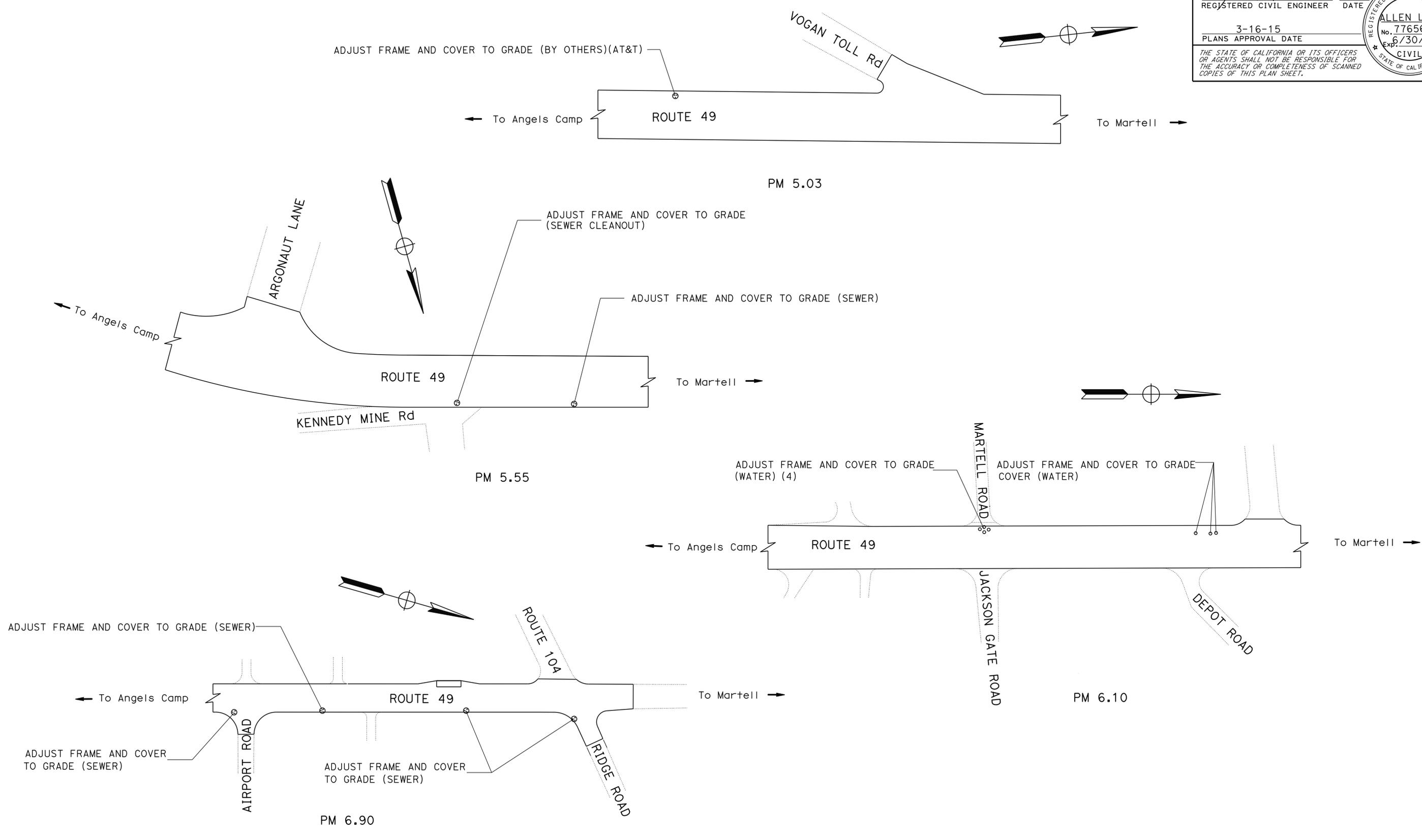
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amo	49	4.0/7.0	9	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
 No. 77656
 Exp. 6/30/15
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
 FUNCTIONAL SUPERVISOR: JOSE A. HUERTA
 CALCULATED/DESIGNED BY: SARAVUTH PHIN
 CHECKED BY: ALLEN LAO
 REVISED BY: SARAVUTH PHIN
 DATE REVISED: 02-20-15



ADJUST FRAME AND COVER TO GRADE LOCATIONS

CONSTRUCTION DETAILS
NO SCALE
C-5

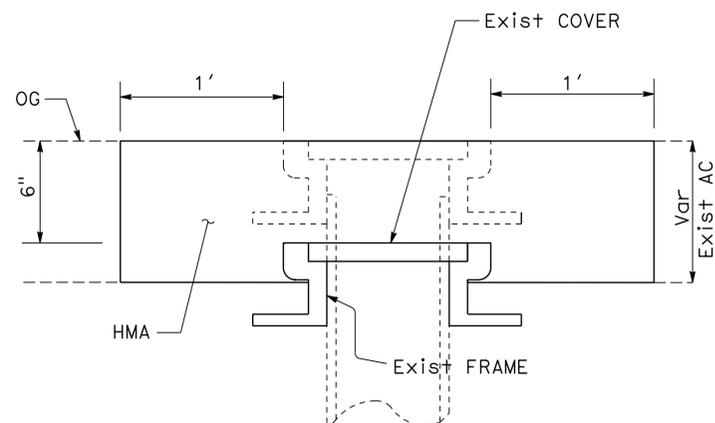
LAST REVISION DATE PLOTTED => 29-JUN-2015
 02-20-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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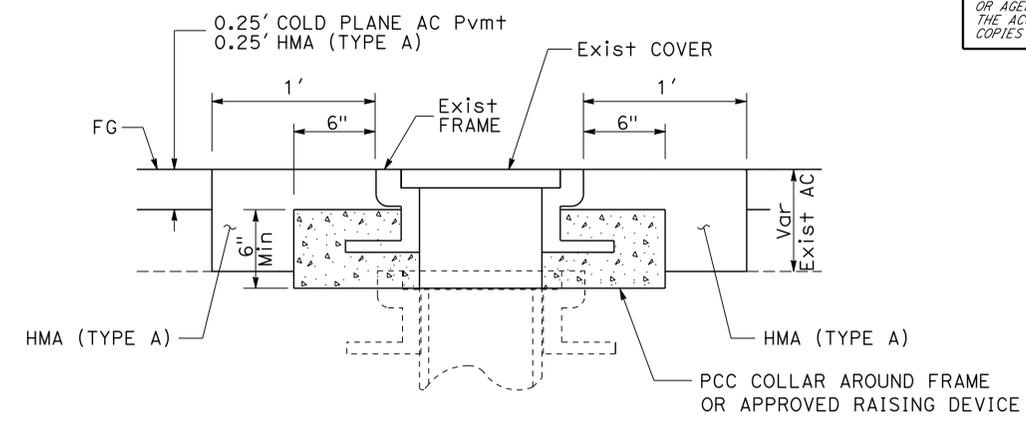
REGISTERED CIVIL ENGINEER	DATE
<i>Allen Lao</i>	3/15/15
PLANS APPROVAL DATE	
	3-16-15

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
No. 77656
Exp. 6/30/15
CIVIL
STATE OF CALIFORNIA

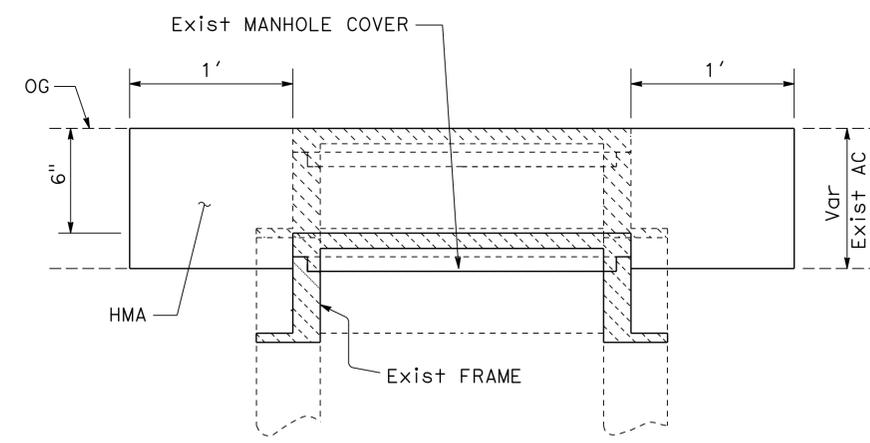
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



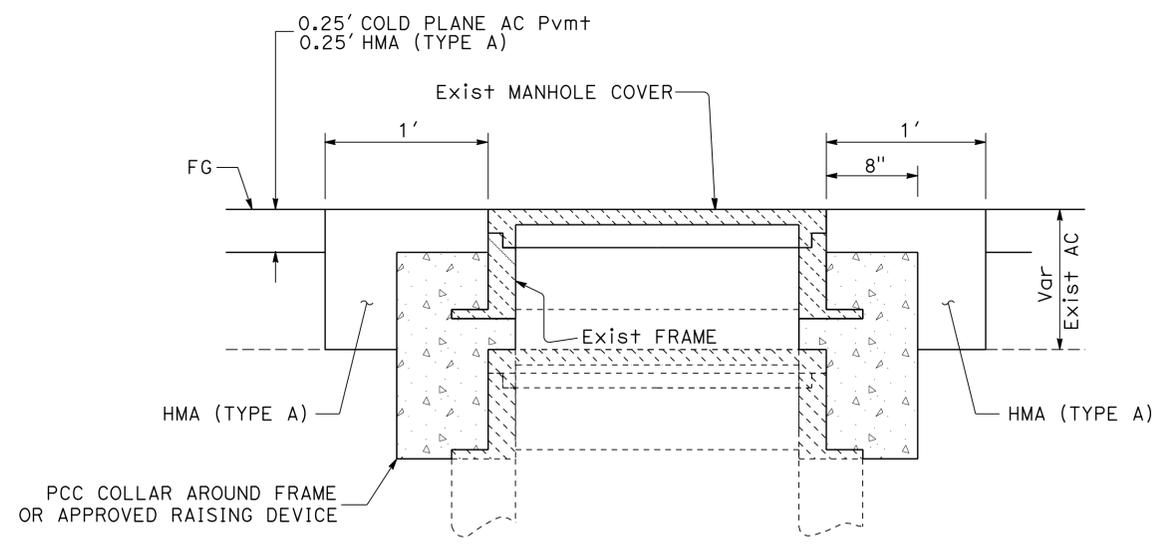
LOWER WATER VALVE/SEWER CLEANOUT FRAME & COVER



RAISE WATER VALVE/SEWER CLEANOUT FRAME & COVER



LOWER MANHOLE FRAME & COVER



RAISE MANHOLE FRAME & COVER

SEE LOCATIONS ON SHEETS C-4 & C-5 AND SUMMARY OF QUANTITIES

ADJUST FRAME AND COVER TO GRADE DETAILS

CONSTRUCTION DETAILS
NO SCALE
C-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
CALCULATED/DESIGNED BY	CHECKED BY
SARAVUTH PHIN	ALLEN LAO
REVISOR	DATE
SARAVUTH PHIN	02-20-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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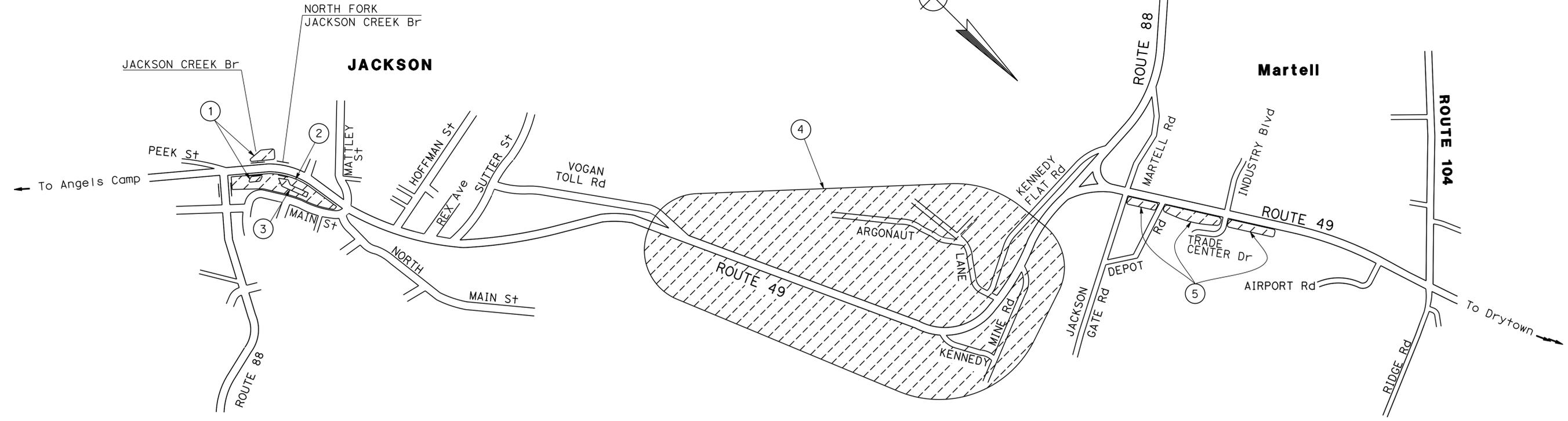
3/15/15
 REGISTERED CIVIL ENGINEER DATE
 3-16-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 ALLEN LAO
 No. 77656
 Exp. 6/30/15
 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.

ESA LOCATIONS WITHIN PROJECT LIMITS

ESA No.	PM - PM	DESCRIPTION
①	4.08 - 4.12	JACKSON CREEK BRIDGE SITE
②	4.06 - 4.33	JACKSON DOWNTOWN HISTORIC DISTRICT
③	4.16 - 4.18	RIPARIAN HABITAT
④	5.16 - 5.66	KENNEDY MINE HISTORIC DISTRICT AND ARGONAUT MINE (208H)
⑤	6.10 - 6.50	ARCHAEOLOGY SITE (Ama 491)



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JOSE A. HUERTA
 CALCULATED/DESIGNED BY: CHECKED BY:
 SARAVUTH PHIN: ALLEN LAO
 REVISED BY: DATE REVISED:
 SARAVUTH PHIN: 02-20-15

CONSTRUCTION DETAILS
NO SCALE **C-7**

LAST REVISION | DATE PLOTTED => 29-JUN-2015
 02-20-15 | TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	12	80

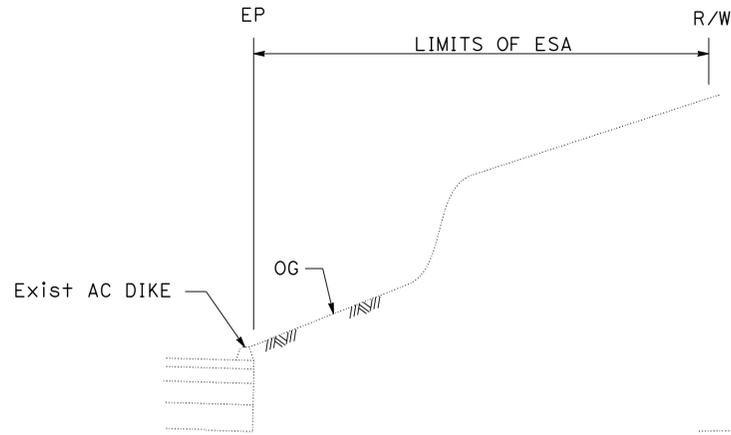
REGISTERED CIVIL ENGINEER	DATE	3/15/15
PLANS APPROVAL DATE		3-16-15

REGISTERED PROFESSIONAL ENGINEER	No.	77656
CIVIL	EXP.	6/30/15

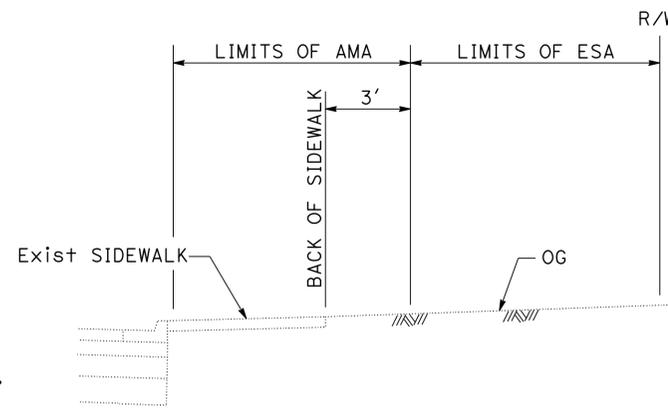
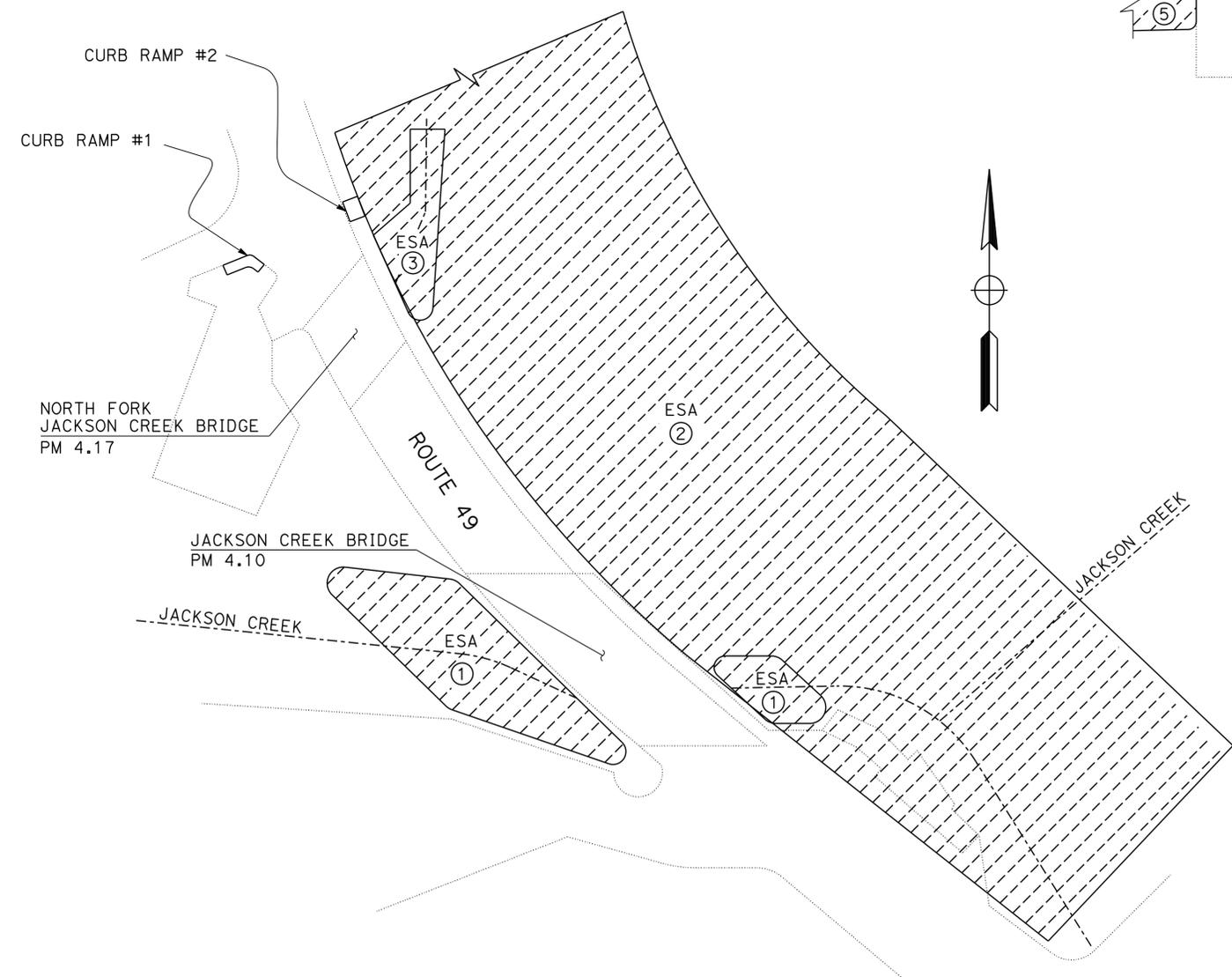
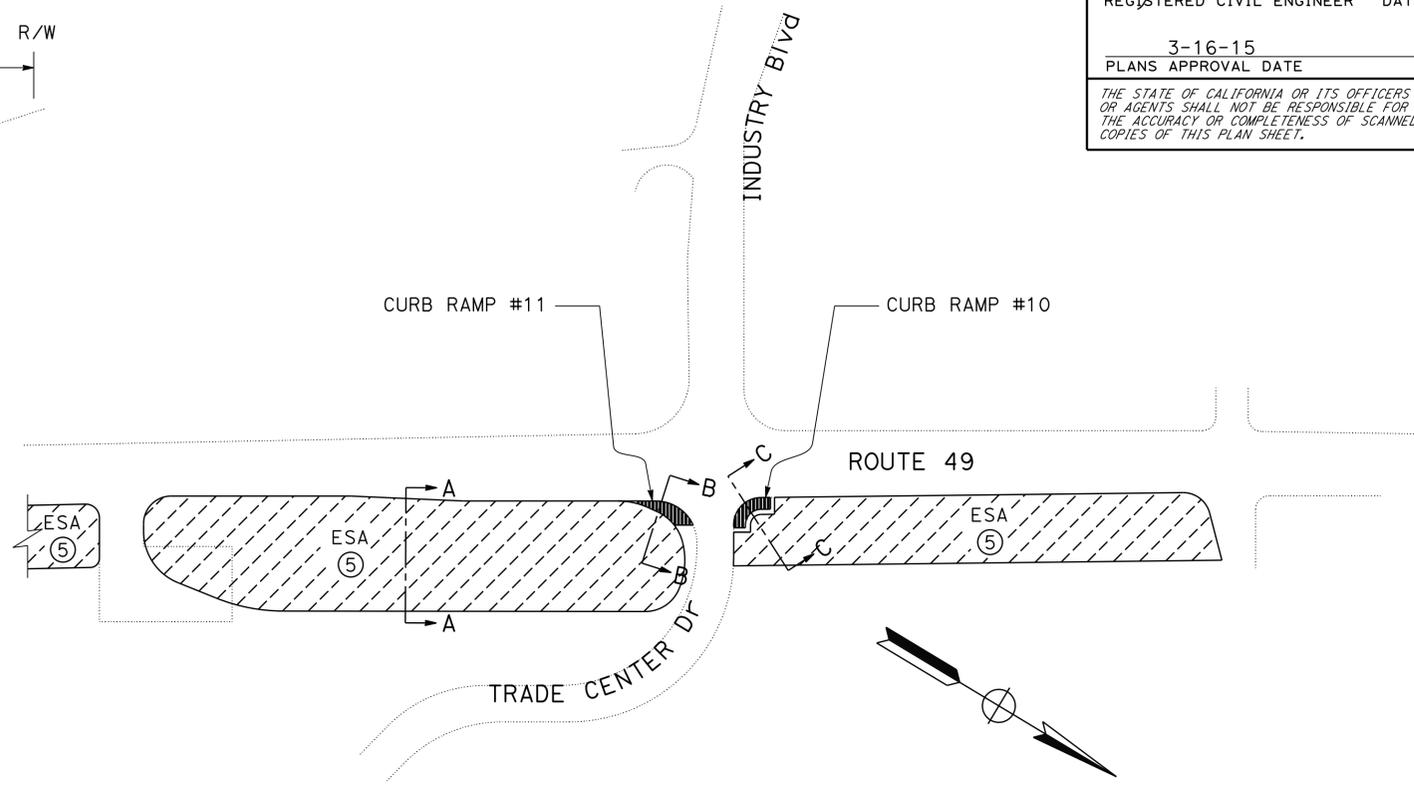
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND (THIS SHEET ONLY):

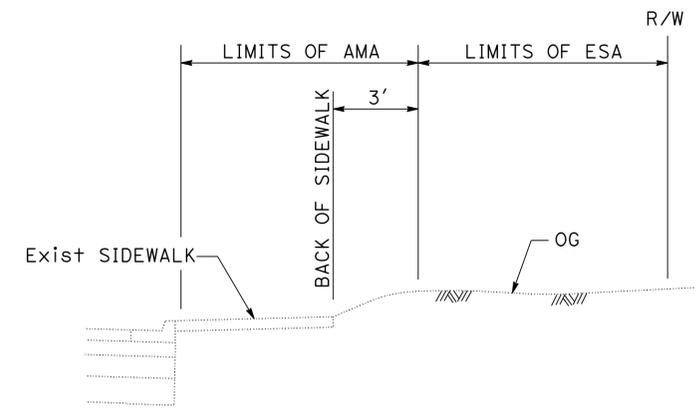
AMA BOUNDARY



SECTION A-A



SECTION B-B



SECTION C-C

ESA LOCATIONS NEAR CURB RAMPS

CONSTRUCTION DETAILS

NO SCALE

C-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
CALCULATED/DESIGNED BY	CHECKED BY
SARAVUTH PHIN	ALLEN LAO
REVISOR	DATE
SARAVUTH PHIN	02-20-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amc	49	4.0/7.0	13	80

3/15/15
 REGISTERED CIVIL ENGINEER DATE
 3-16-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 ALLEN LAO
 No. 77656
 Exp. 6/30/15
 CIVIL
 STATE OF CALIFORNIA

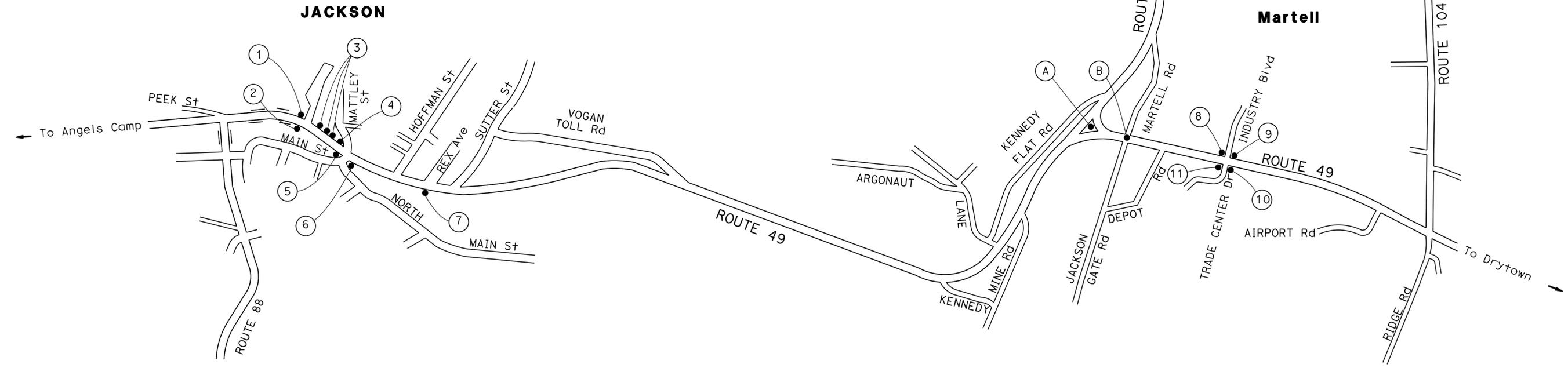
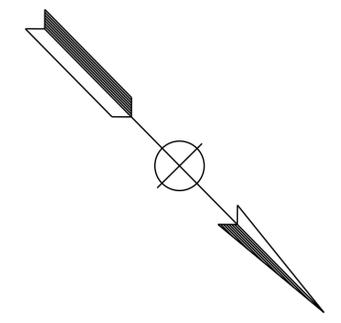
THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
 COPIES OF THIS PLAN SHEET.

CURB RAMP LOCATIONS

CURB RAMP No.	DESCRIPTION	PM	LOCATION	NUMBER OF RAMPS	SHEET No.
①	CASE C MODIFIED	4.12	0.1 MILE NORTH OF 49/88 JUNCTION (LEFT SIDE)	1	C-10
②	LANDING	4.12	0.1 MILE NORTH OF 49/88 JUNCTION (RIGHT SIDE)	1	C-10
③	LANDING	4.32	NW CORNER MAIN STREET INTERSECTION	3	C-11
④	LANDING	4.32	NW CORNER MAIN STREET INTERSECTION	1	C-11
⑤	CASE C MODIFIED	4.32	SE CORNER OF MAIN STREET INTERSECTION	1	C-12
⑥	CASE CM MODIFIED	4.32	NE CORNER OF MAIN STREET INTERSECTION	1	C-13
⑦	CASE C	4.50	AT REX ROAD INTERSECTION (RIGHT SIDE)	1	C-14
⑧	CASE A	6.37	NW CORNER OF INDUSTRY Blvd INTERSECTION	1	C-17
⑨	CASE C MODIFIED	6.37	SW CORNER OF INDUSTRY Blvd INTERSECTION	1	C-17
⑩	CASE A	6.37	NE CORNER OF TRADE CENTER Dr INTERSECTION	2	C-18
⑪	CASE C MODIFIED	6.37	SE CORNER OF TRADE CENTER Dr INTERSECTION	1	C-18

CURB LOCATIONS

CURB LOCATION	PM	LOCATION	SHEET No.
Ⓐ	5.93	CURBS IN ISLAND AT SR49/88 JUNCTION	C-15
Ⓑ	6.10	NW AND SW CORNER OF MARTELL/JACKSON GATE Rd	C-16



CURB AND CURB RAMP LOCATIONS

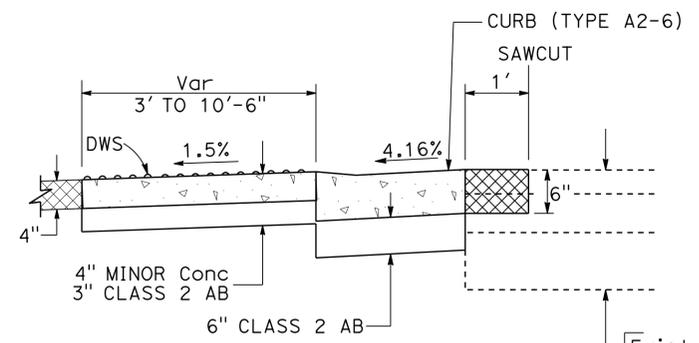
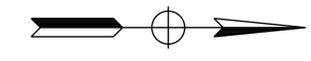
CONSTRUCTION DETAILS
NO SCALE **C-9**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JOSE A. HUERTA
 SARAVUTH PHIN: ALLEN LAO
 REVISED BY: SARAVUTH PHIN
 DATE REVISED: 02-20-15
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]

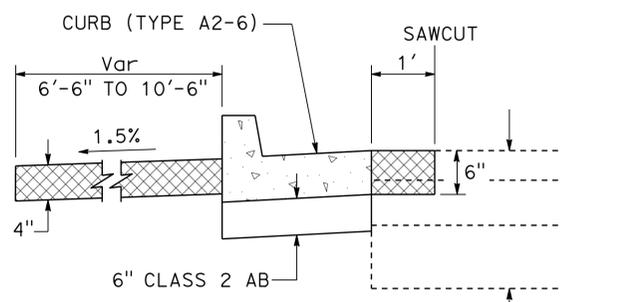
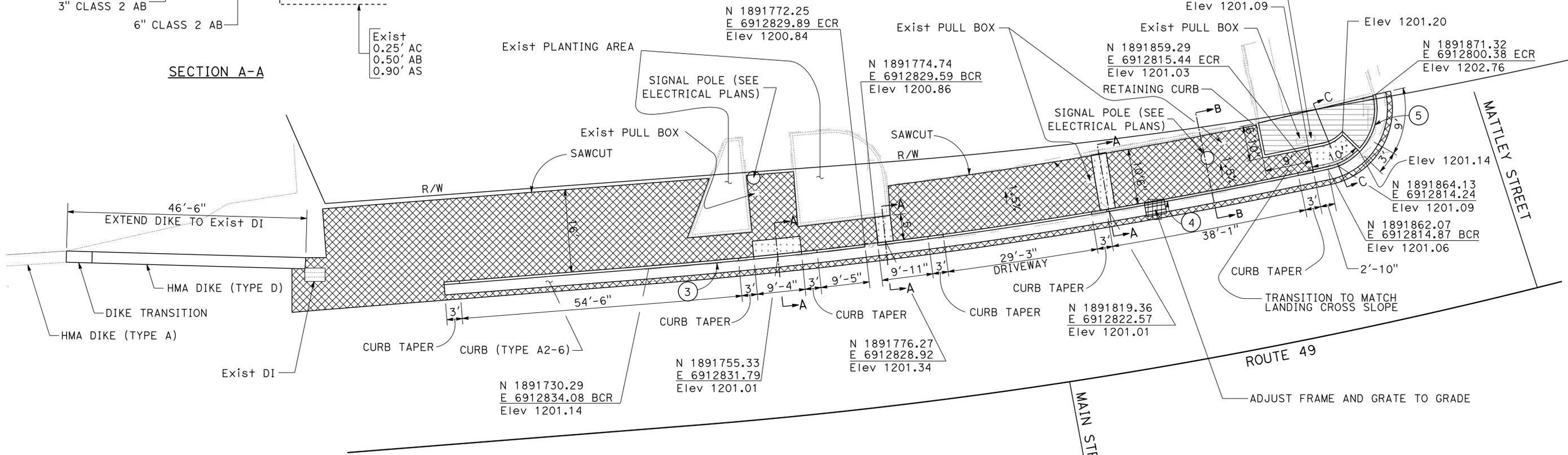
LAST REVISION | DATE PLOTTED => 29-JUN-2015
 02-20-15 TIME PLOTTED => 09:14

CURVE DATA

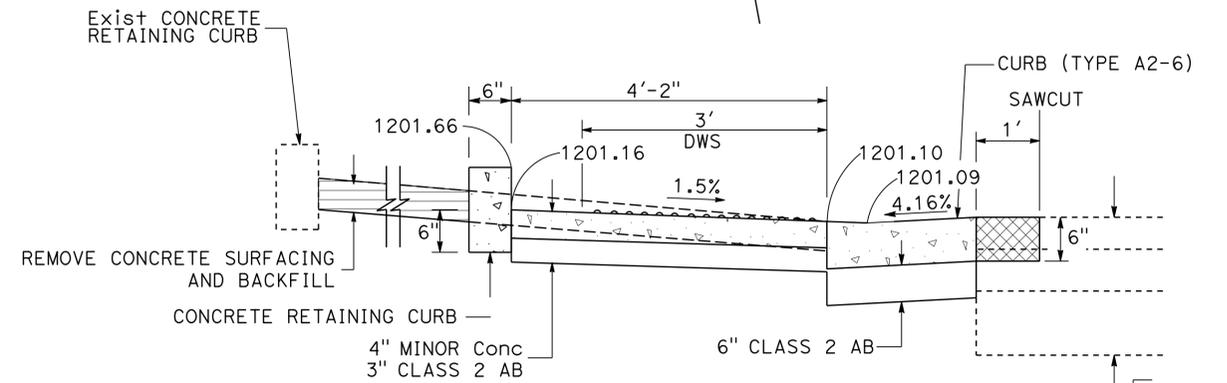
No. ⊕	R	Δ	T	L
③	1000'	02°25'00"	21.09'	42.18'
④	1000'	04°38'19"	40.50'	80.96'
⑤	12'	91°29'46"	12.32'	19.16'



SECTION A-A



SECTION B-B



SECTION C-C

CONSTRUCTION DETAILS
NO SCALE
C-11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Saravuth Phin
 Allen Lao
 Jose A. Huerta
 DESIGN

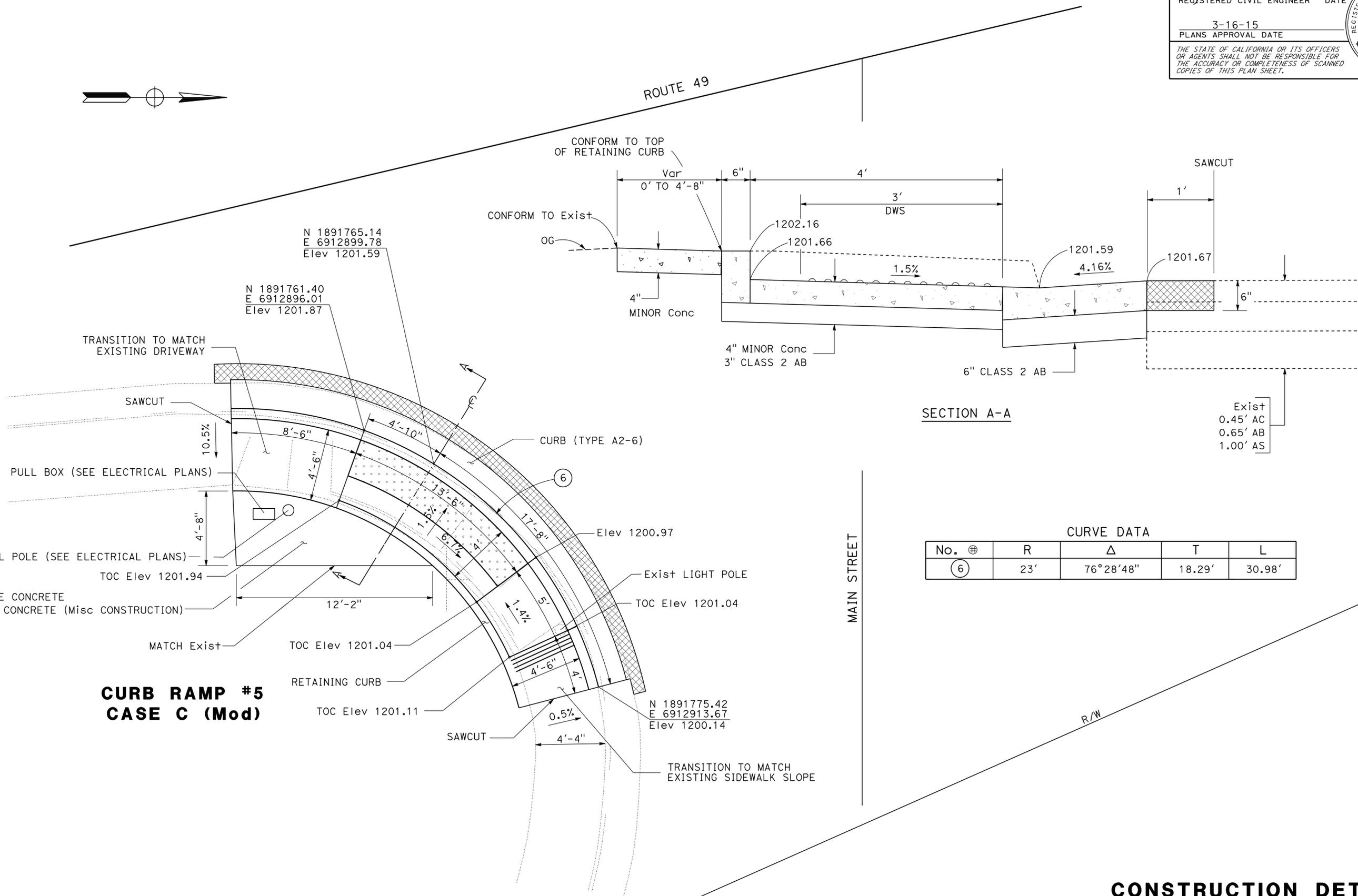
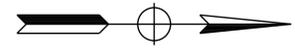
LAST REVISION DATE PLOTTED => 29-JUN-2015
 02-20-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	16	80

3/15/15
 REGISTERED CIVIL ENGINEER DATE
 3-16-15
 PLANS APPROVAL DATE

ALLEN LAO
 No. 77656
 Exp. 6/30/15
 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.



SECTION A-A

CURVE DATA				
No. ⊕	R	Δ	T	L
⑥	23'	76°28'48"	18.29'	30.98'

**CURB RAMP #5
CASE C (Mod)**

**CONSTRUCTION DETAILS
NO SCALE
C-12**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Saravuth Phin
 Saravuth Phin
 Saravuth Phin
 Jose A. Huerta
 Allen Lao
 02-20-15

USERNAME => s120300
 DGN FILE => a0s720ga012.DGN

RELATIVE BORDER SCALE
 IS IN INCHES
 0 1 2 3

UNIT 1457

PROJECT NUMBER & PHASE

10000206701

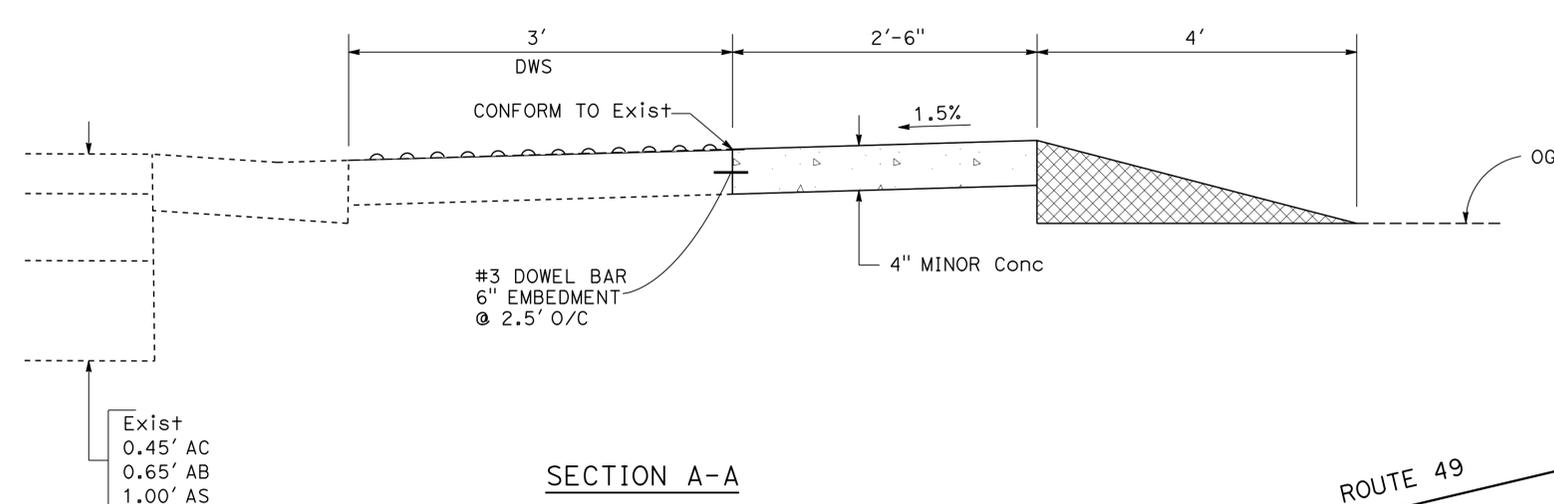
LAST REVISION | DATE PLOTTED => 29-JUN-2015
 02-20-15 | TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	17	80

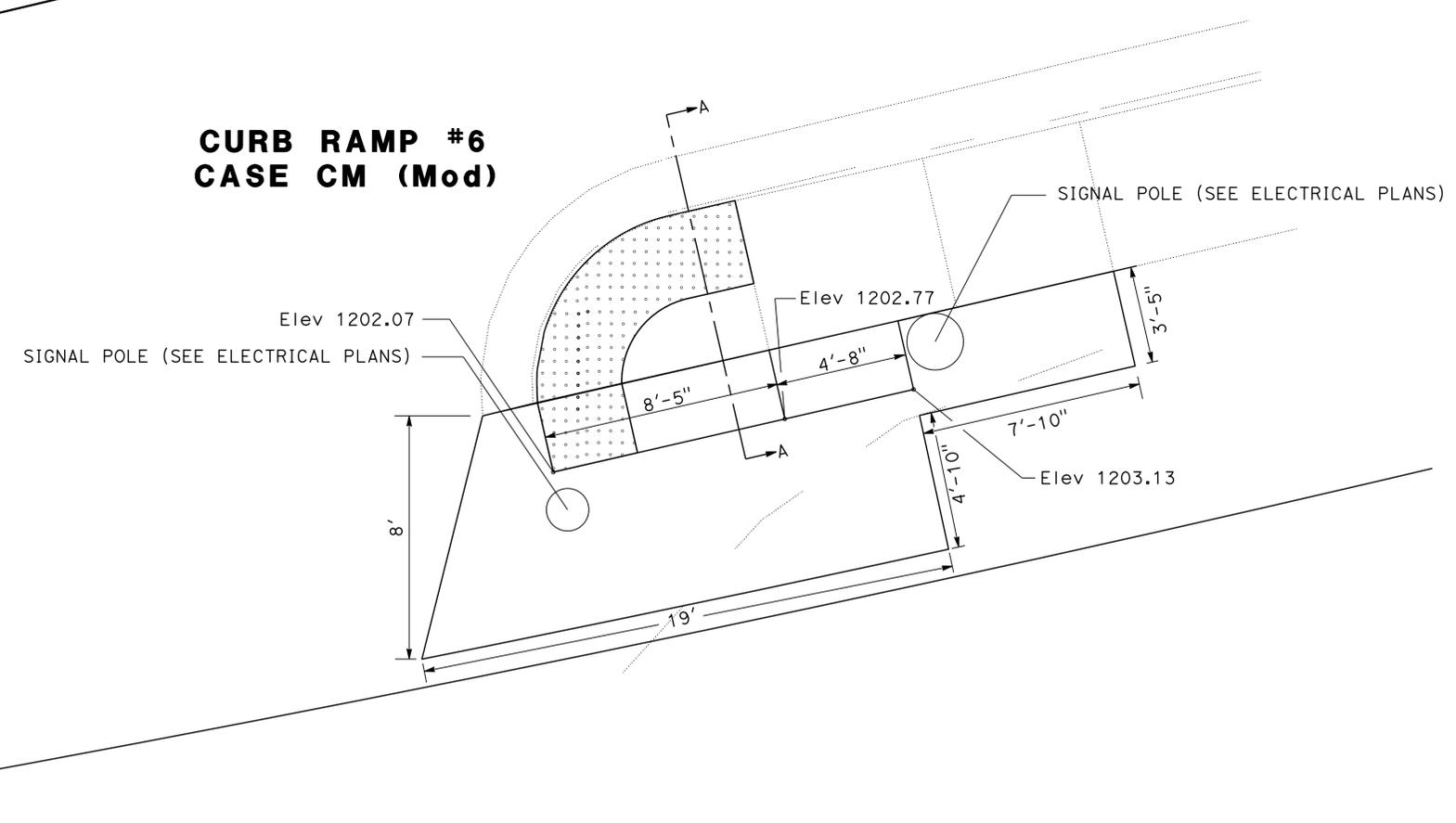
<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
 No. 77656
 Exp. 6/30/15
 CIVIL
 STATE OF CALIFORNIA

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**CURB RAMP #6
CASE CM (Mod)**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
CALCULATED/DESIGNED BY	CHECKED BY
SARAVUTH PHIN	ALLEN LAO
REVISOR	DATE
SARAVUTH PHIN	02-20-15

BORDER LAST REVISED 7/2/2010

USERNAME => s120300
DGN FILE => a0s720ga013.DGN



UNIT 1457

PROJECT NUMBER & PHASE

10000206701

**CONSTRUCTION DETAILS
NO SCALE
C-13**

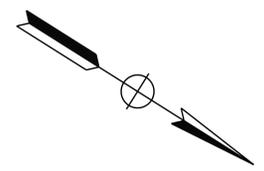
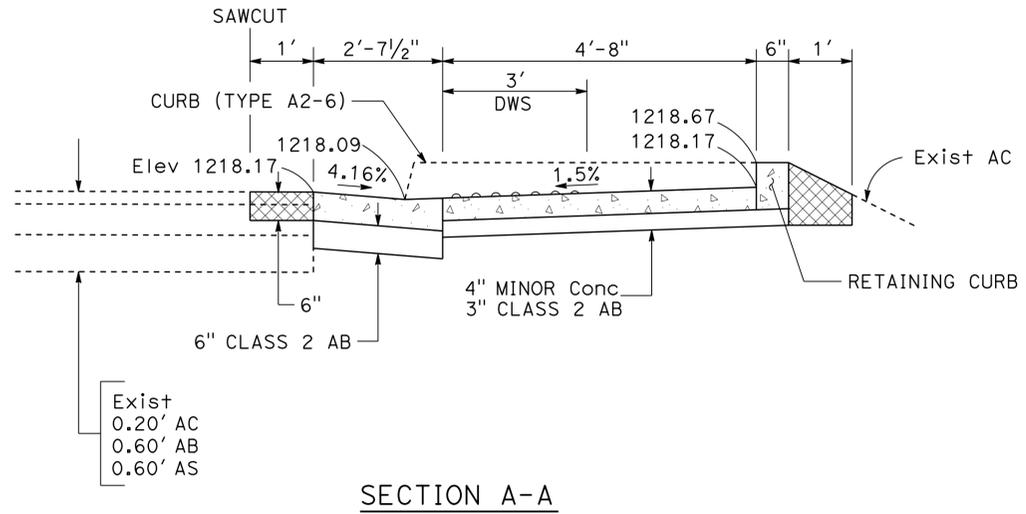
LAST REVISION | DATE PLOTTED => 29-JUN-2015
02-20-15 | TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	18	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
 No. 77656
 Exp. 6/30/15
 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.



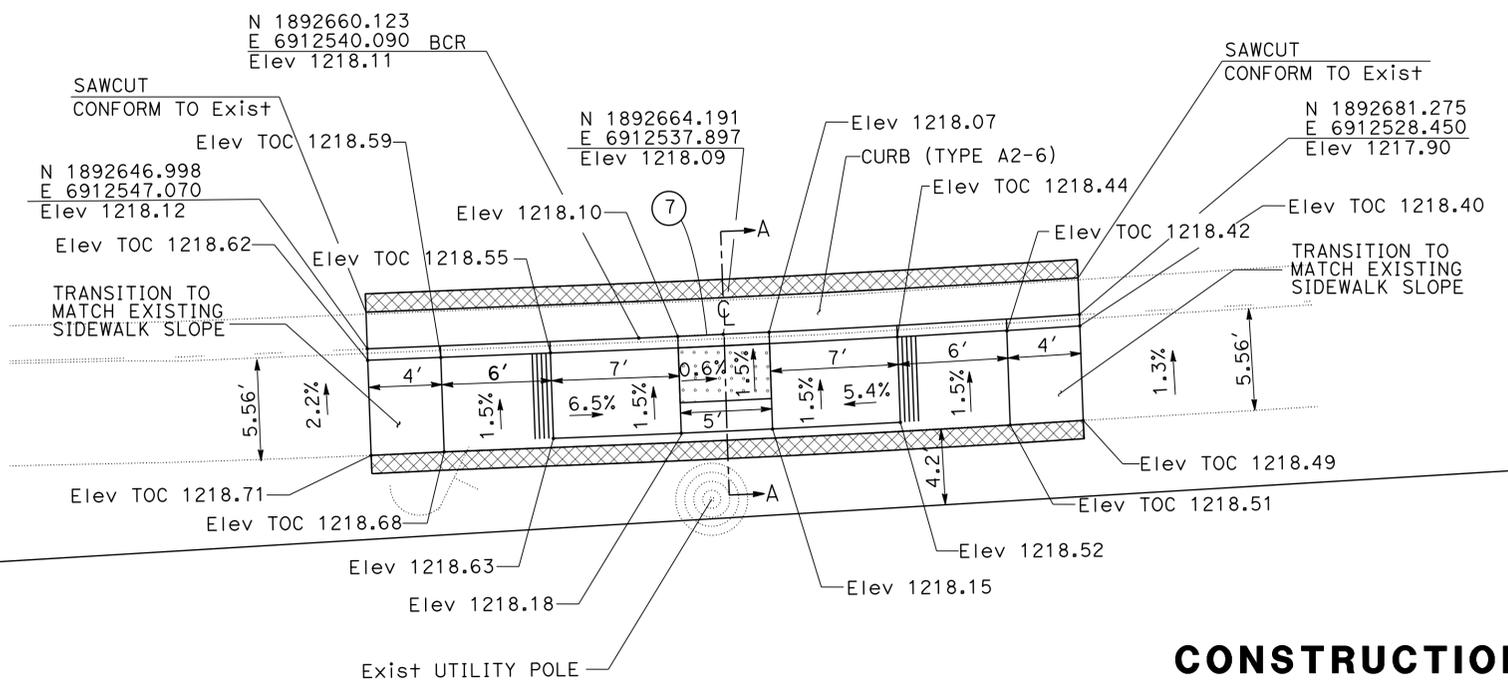
REX ST

ROUTE 49

CURVE DATA

No. ⊕	R	Δ	T	L
⑦	1037.93'	01°19'56"	12.07'	24.13'

**CURB RAMP #7
CASE C**



CONSTRUCTION DETAILS
NO SCALE
C-14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JOSE A. HUERTA
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 SARAVUTH PHIN
 ALLEN LAO
 REVISED BY: [Blank]
 DATE REVISED: 02-20-15
 SARAVUTH PHIN
 02-20-15

LAST REVISION DATE PLOTTED => 29-JUN-2015
 02-20-15 TIME PLOTTED => 09:14

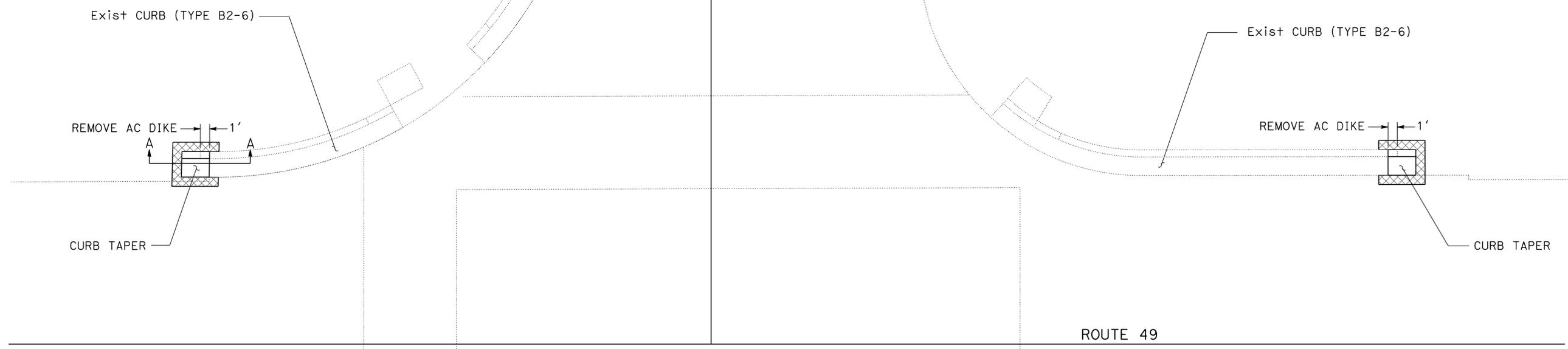
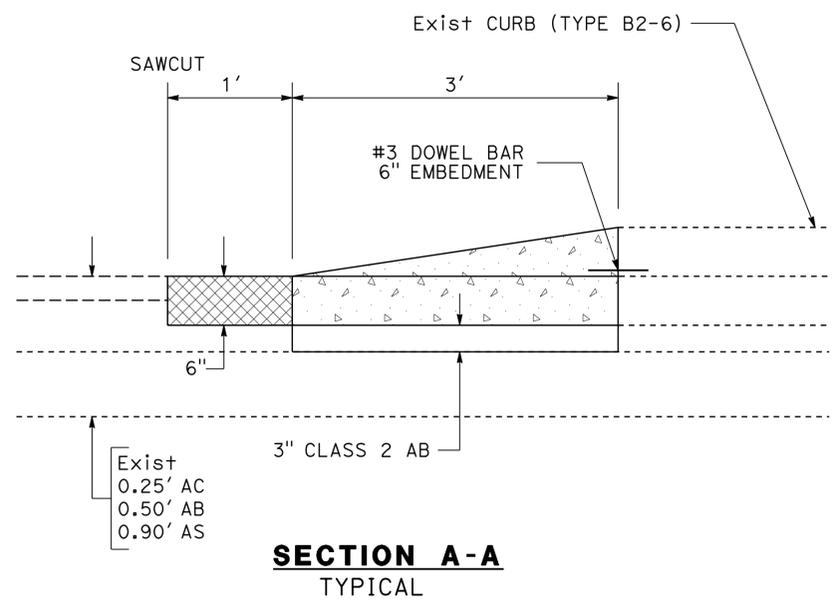
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amg	49	4.0/7.0	20	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
ALLEN LAO
 No. 77656
 Exp. 6/30/15
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
CALCULATED/DESIGNED BY	CHECKED BY
SARAVUTH PHIN	ALLEN LAO
REVISOR	DATE
SARAVUTH PHIN	02-20-15



CONSTRUCTION DETAILS
NO SCALE **C-16**

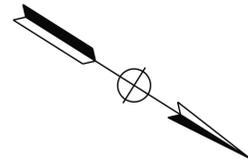
LAST REVISION DATE PLOTTED => 29-JUN-2015 02-20-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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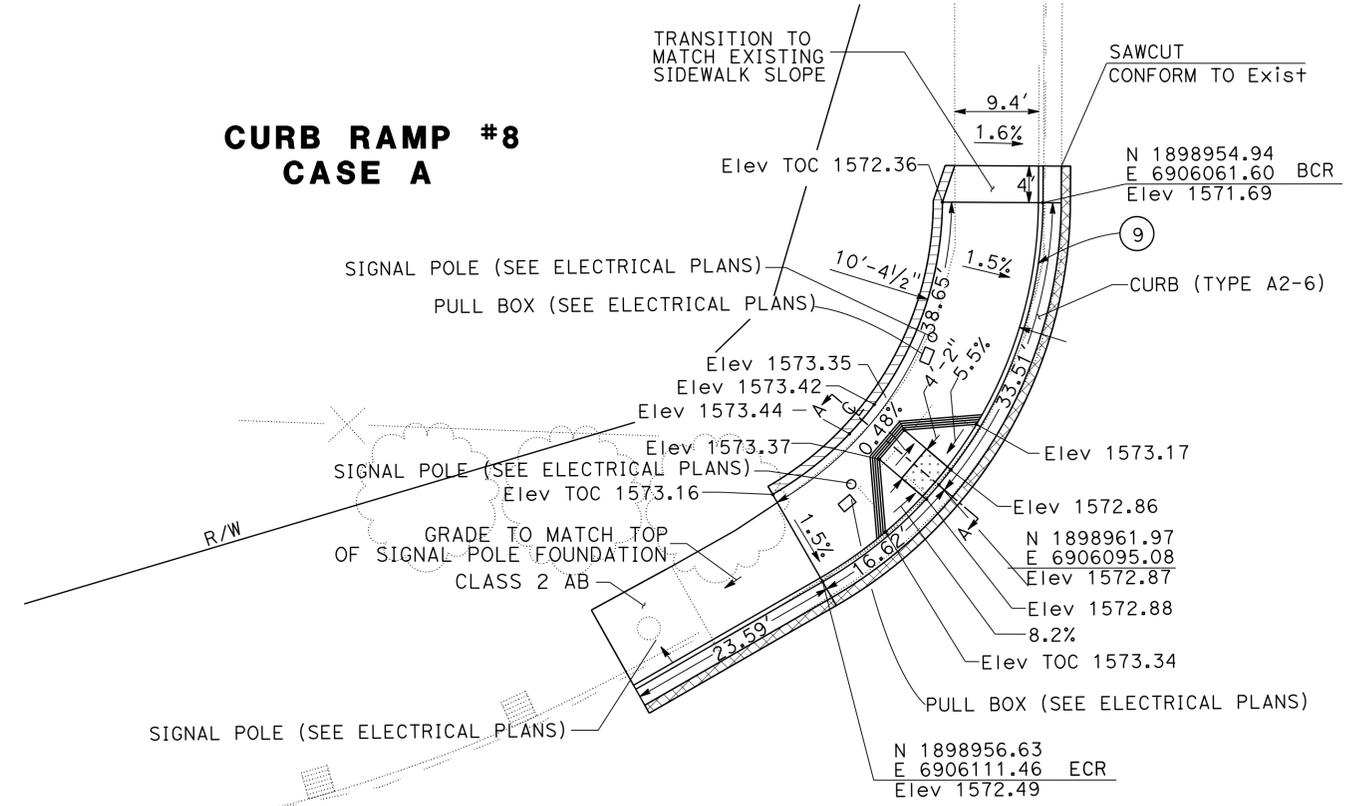
REGISTERED CIVIL ENGINEER DATE 3/15/15
 ALLEN LAO
 No. 77656
 Exp. 6/30/15
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CURVE DATA

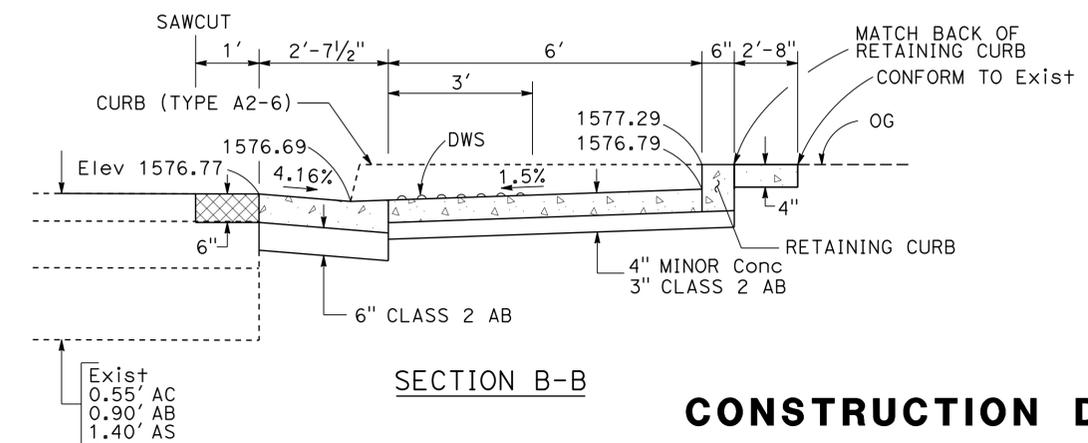
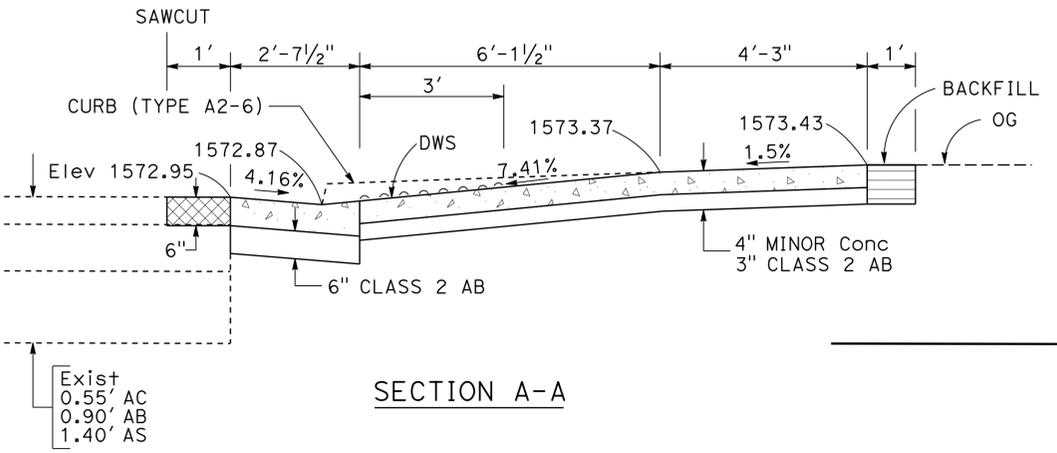
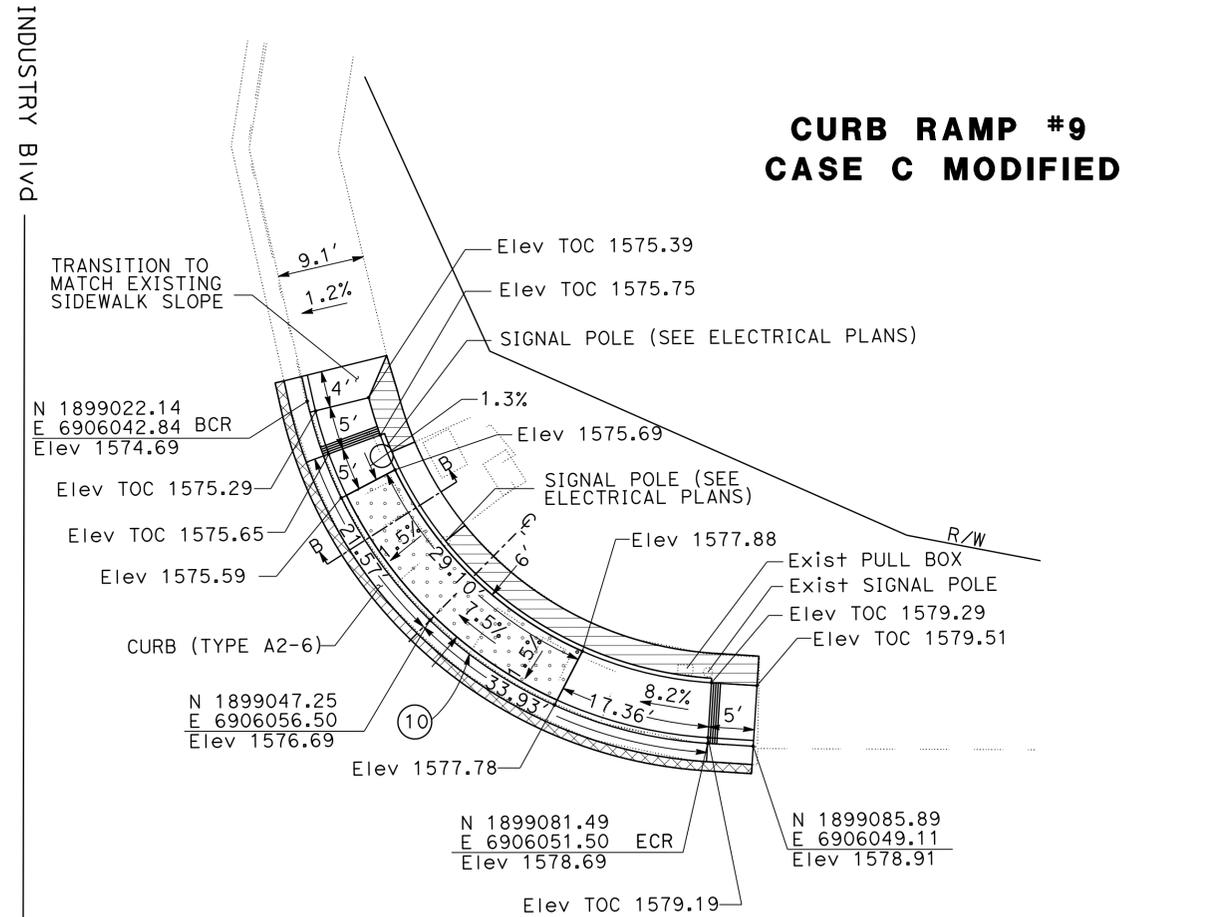
No.	⊕	R	Δ	T	L
9		48'	59°50'40"	27.63'	50.14'
10		48'	73°40'51"	35.96'	61.73'



**CURB RAMP #8
CASE A**



**CURB RAMP #9
CASE C MODIFIED**



**CONSTRUCTION DETAILS
NO SCALE
C-17**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Saravuth Phin
 Saravuth Phin
 Saravuth Phin
 Jose A. Huerta
 DESIGN

USERNAME => s120300
 DGN FILE => a0s720ga017.DGN

RELATIVE BORDER SCALE IS IN INCHES
 0 1 2 3

UNIT 1457

PROJECT NUMBER & PHASE

10000206701

LAST REVISION DATE PLOTTED => 29-JUN-2015
 02-20-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	22	80

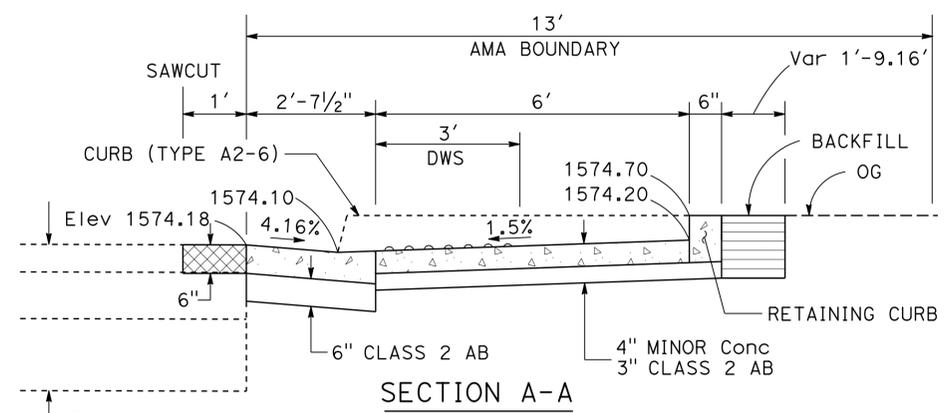
REGISTERED CIVIL ENGINEER	DATE
ALLEN LAO	3/15/15
PLANS APPROVAL DATE	
	3-16-15

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.

NOTES (THIS SHEET ONLY):

- AMA BOUNDARIES ARE 3 FEET FROM THE BACK OF EXIST SIDEWALK.
- EXCESS SOIL TO REMAIN ON SITE.
- SEE ELECTRICAL PLANS FOR PULL BOX AND SIGNAL POLE WORK.

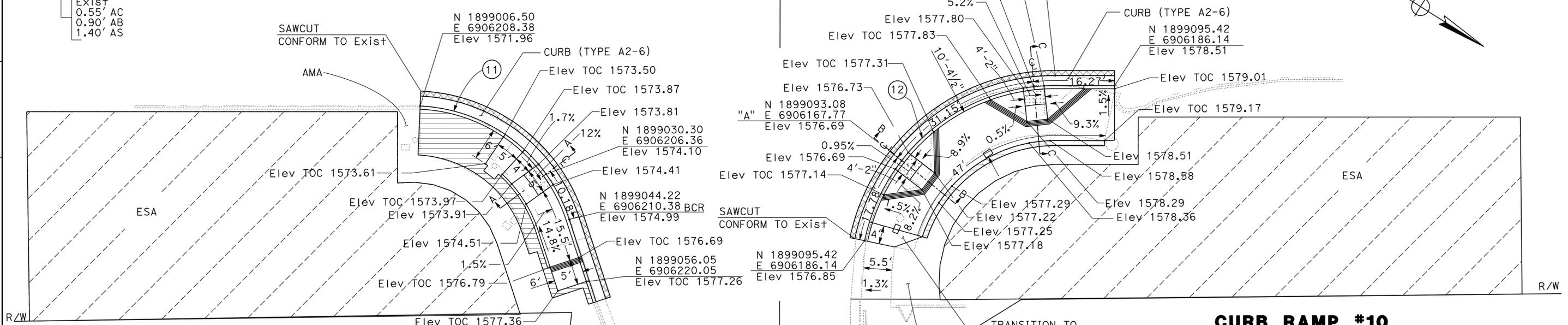
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Saravuth Phin
 02-20-15
 REVISED BY
 DATE REVISED
 SARAVUTH PHIN
 ALLEN LAO
 CALCULATED/DESIGNED BY
 CHECKED BY
 JOSE A. HUERTA
 FUNCTIONAL SUPERVISOR
 DESIGN



SECTION A-A

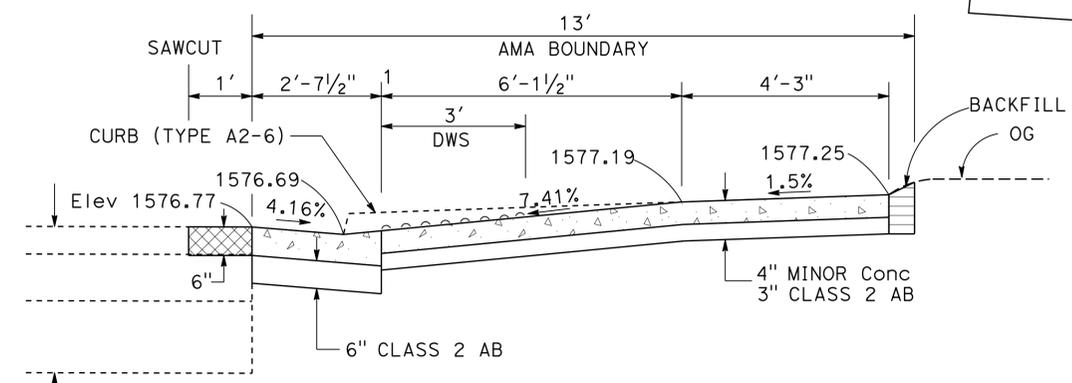
CURVE DATA

No. @	R	Δ	T	L
(11)	33'	71°48'08"	23.89'	41.36'
(12)	39'	78°15'55"	31.73'	53.27'

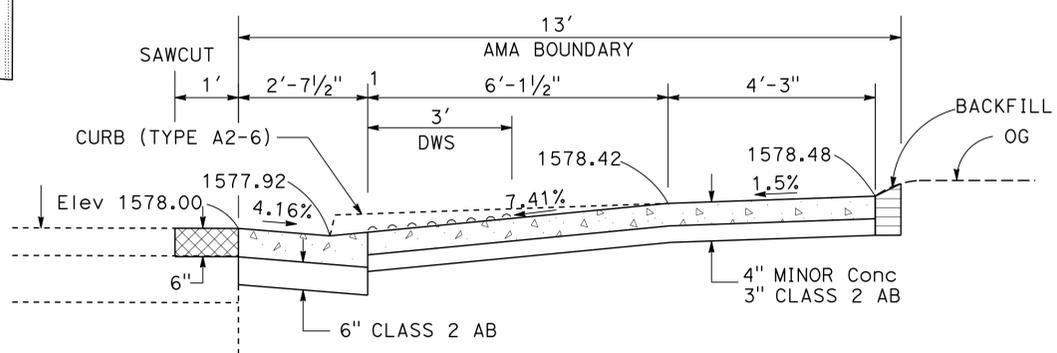


**CURB RAMP #11
CASE C MODIFIED**

**CURB RAMP #10
CASE A**



SECTION B-B



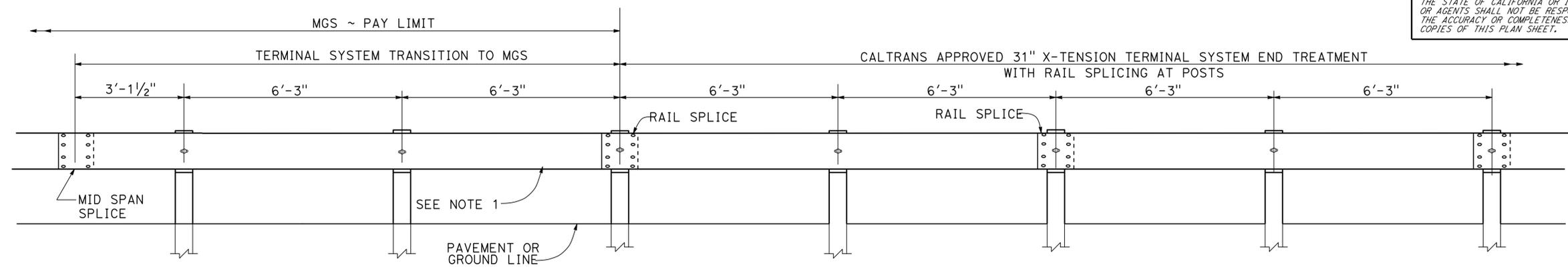
SECTION C-C

**CONSTRUCTION DETAILS
NO SCALE
C-18**

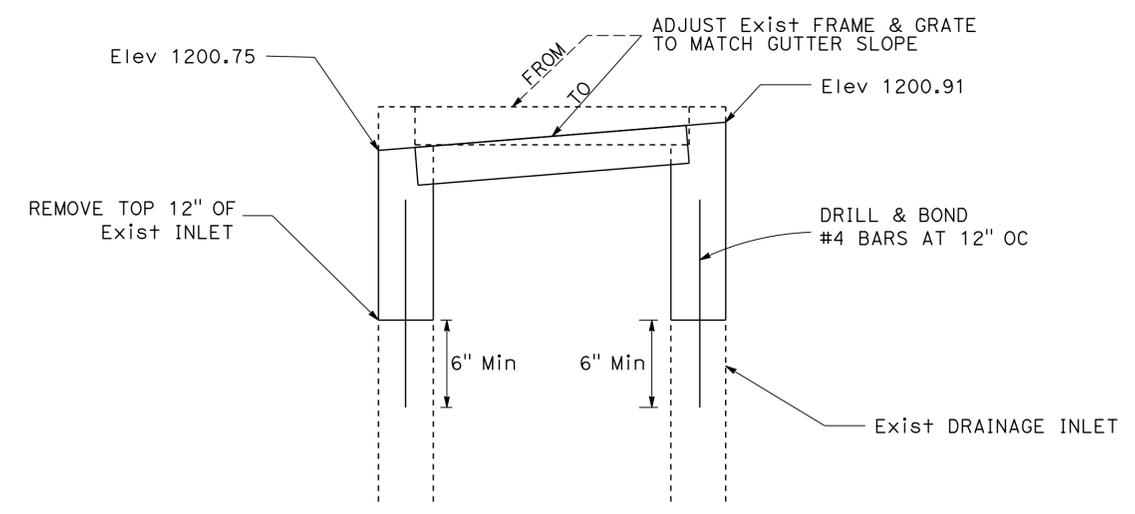
LAST REVISION DATE PLOTTED => 29-JUN-2015
 02-20-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	23	80
			3/15/15	DATE	
REGISTERED CIVIL ENGINEER			ALLEN LAO		
			No. 77656	Exp. 6/30/15	
PLANS APPROVAL DATE			3-16-15		
<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>					

NOTE (THIS SHEET ONLY):
USE 15'-7 1/2" LENGTH RAIL.

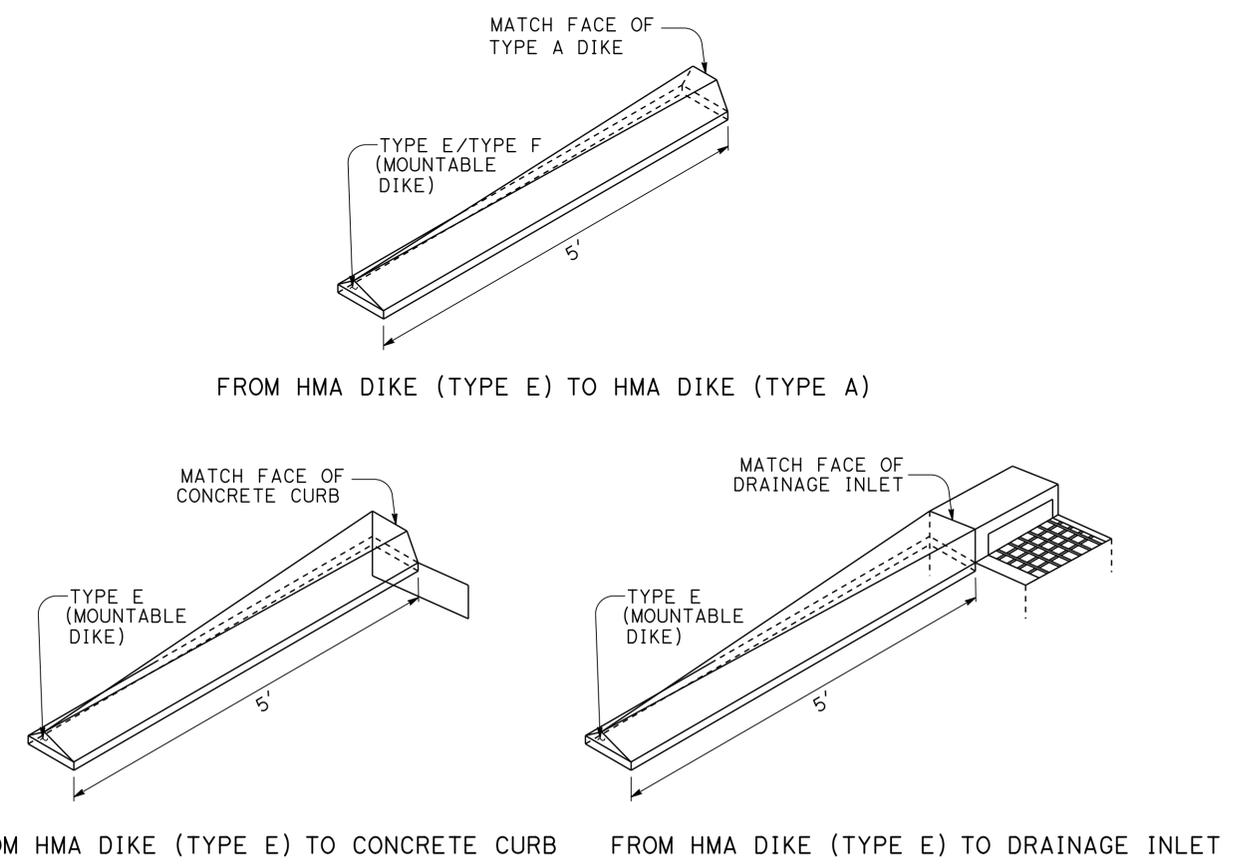


TRANSITION DETAIL FOR 31" X-TENSION TERMINAL SYSTEM END TREATMENT WITH RAIL SPLICING AT POSTS TO MIDWEST GUARDRAIL SYSTEM



SEE CONSTRUCTION DETAILS SHEET C-11 FOR LOCATION

ADJUST FRAME AND GRATE TO GRADE DETAIL



HMA DIKE TRANSITION

CONSTRUCTION DETAILS C-19
NO SCALE

SARAVUTH PHIN	02-20-15
REVISOR	DATE
SARAVUTH PHIN	ALLEN LAO
DESIGNER	CHECKER
JOSE A. HUERTA	
FUNCTIONAL SUPERVISOR	
DESIGN	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	

NOTES (SHEETS C-20 AND C-21 ONLY):

1. VEGETATION CONTROL (RUBBER MAT) MUST BE 48" WIDE INDIVIDUAL MATS OR 48" WIDE CONTINUOUS ROLL PRODUCT. INDIVIDUAL MATS ARE SHOWN.
2. EDGES OF MAT TO ABUT EDGES OF POST.
3. WHERE EDGE OF PAVED SHOULDER IS MORE THAN 24" FROM BACK OF POST, EDGE OF VEGETATION CONTROL (RUBBER MAT) MUST BE 24" FROM BACK OF POST. WHERE PAVED SHOULDER IS CONSTRUCTED 24" OR LESS FROM BACK OF POST, ABUT EDGE OF VEGETATION CONTROL (RUBBER MAT) AGAINST EDGE OF PAVED SHOULDER. WHERE DIKE IS CONSTRUCTED UNDER RAILING, ABUT EDGE OF VEGETATION CONTROL (RUBBER MAT) AGAINST BACK OF DIKE.
4. LAP VEGETATION CONTROL (RUBBER MAT) IN DIRECTION OF WATER FLOW.
5. FOR CONTINUOUS ROLL PRODUCT LOCATE OVERLAP JOINT AT OR BETWEEN MIDSPAN POSTS AS SHOWN.
6. SEE VEGETATION CONTROL (RUBBER MAT) UNDER MIDWEST GUARDRAIL SYSTEM FOR ADDITIONAL POST CUTOUT AND OVERLAP JOINT DETAILS.
7. CONTINUE ALIGNMENT OF MAT EDGE AT OFFSET FROM BACK OF POST.

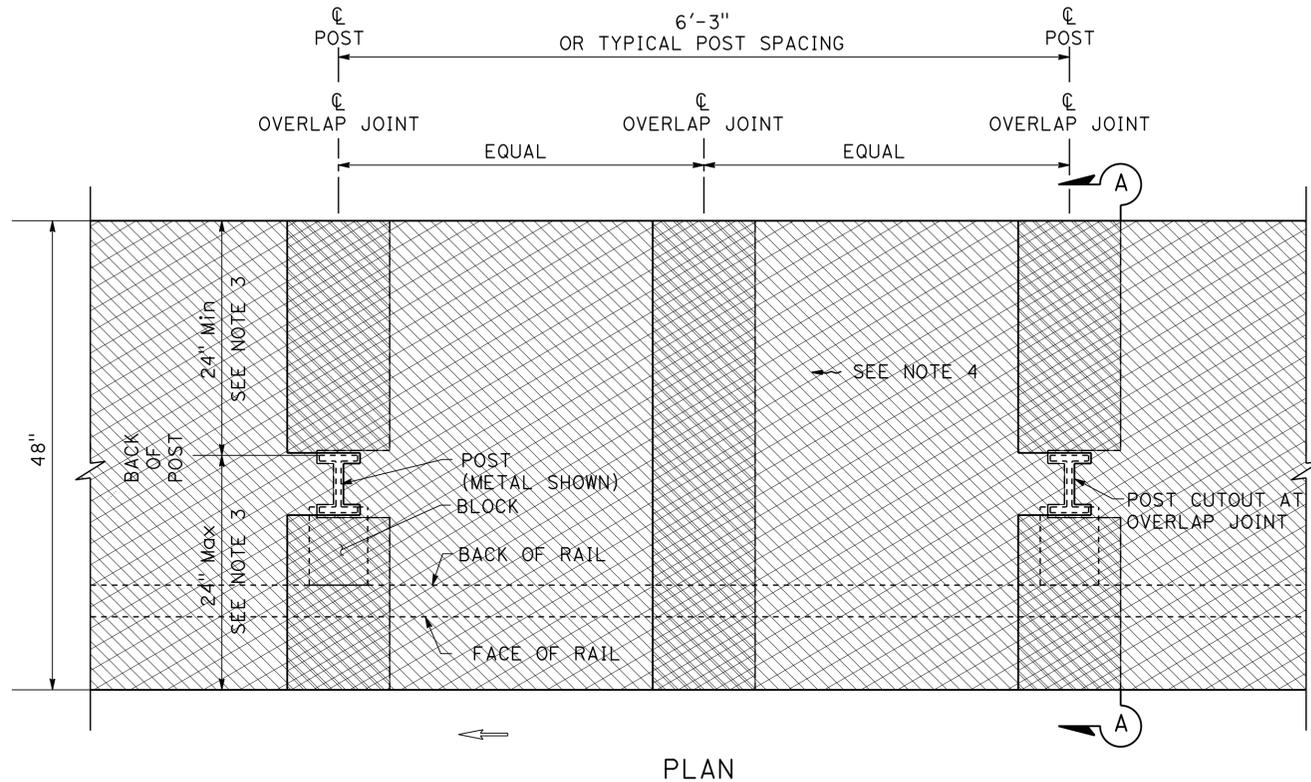
LEGEND (SHEETS C-20 AND C-21 ONLY):



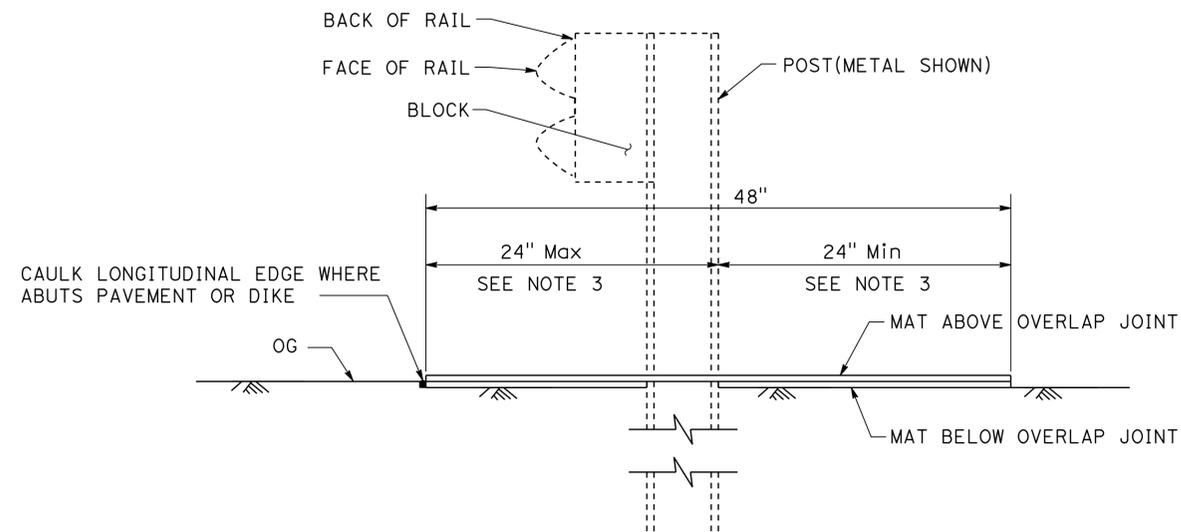
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	24	80

Agustin Escuttia
 LICENSED LANDSCAPE ARCHITECT
 3-16-15
 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.

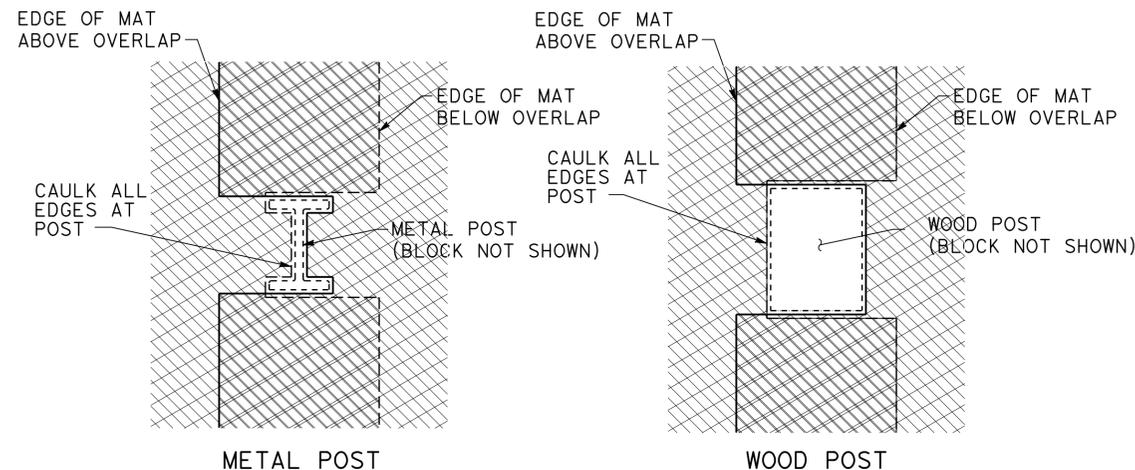


PLAN



SECTION A-A

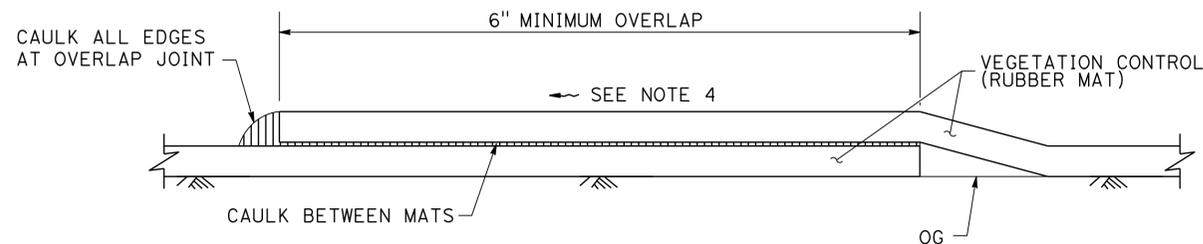
SEE NOTE 1



PLAN

POST CUTOUT AT OVERLAP JOINT

SEE NOTE 2



SECTION OVERLAP JOINT

VEGETATION CONTROL (RUBBER MAT) UNDER MIDWEST GUARDRAIL SYSTEM

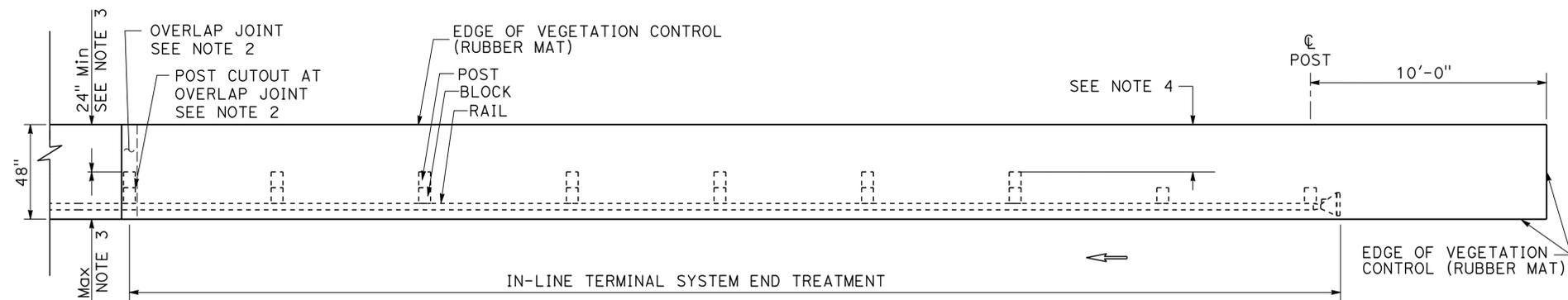
CONSTRUCTION DETAILS

NO SCALE

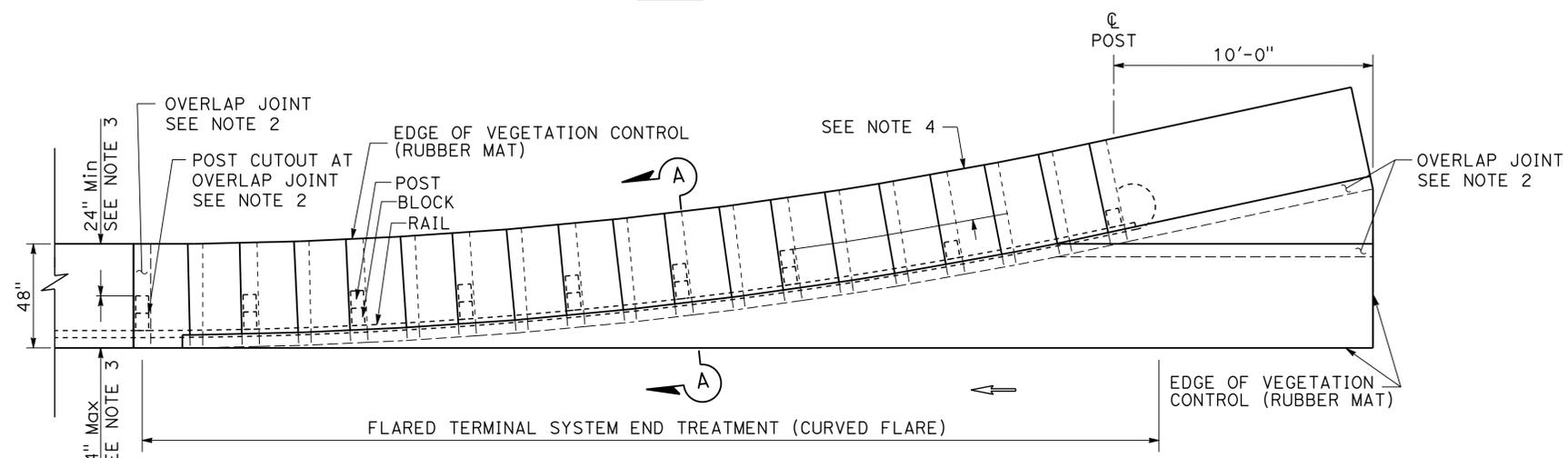
C-20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	25	80

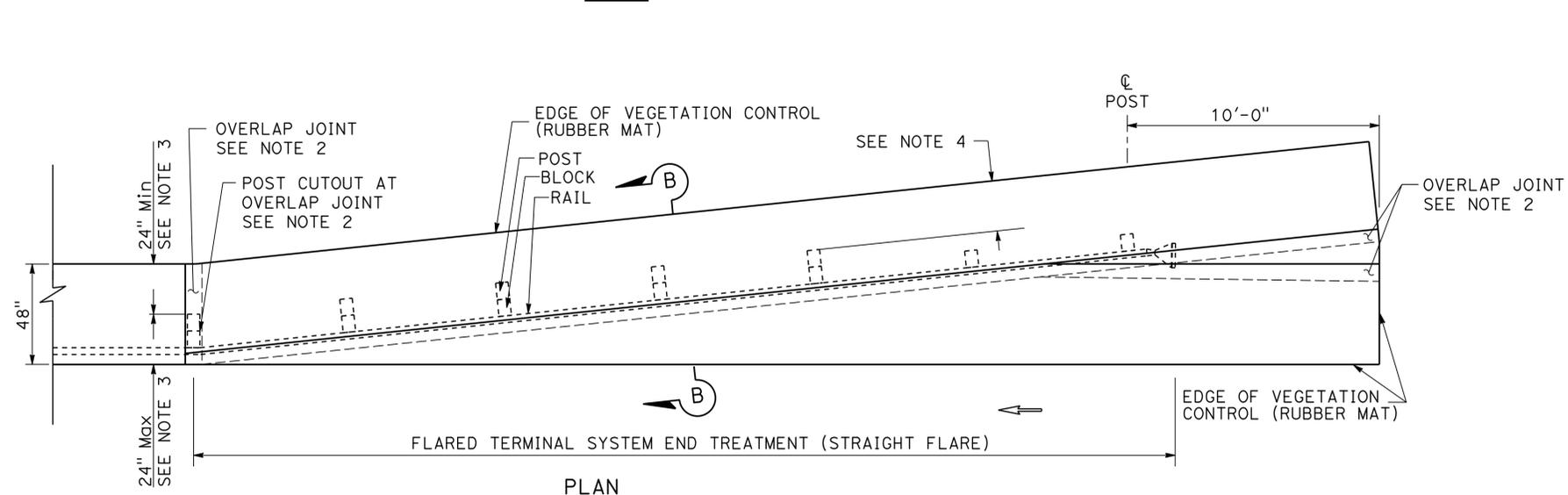
Agustin Escutia
 LICENSED LANDSCAPE ARCHITECT
 3-16-15
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



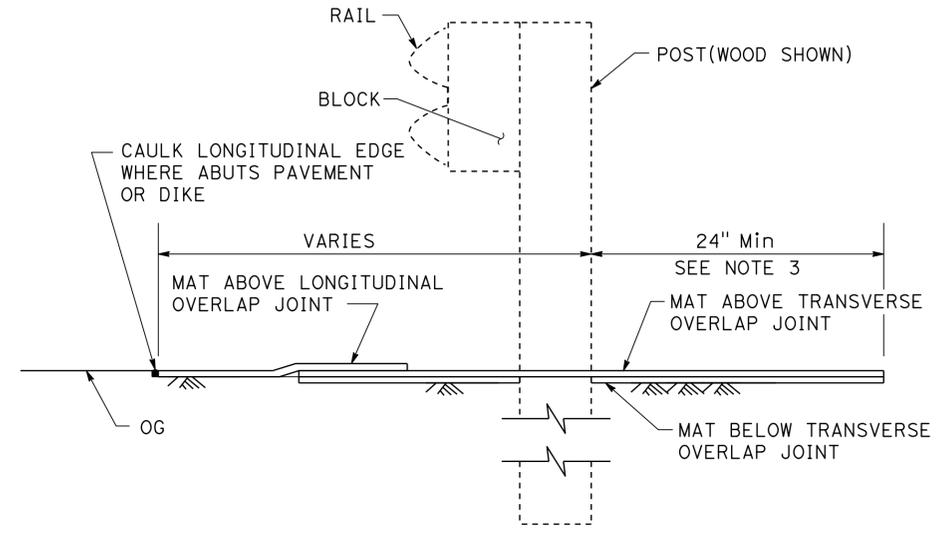
PLAN



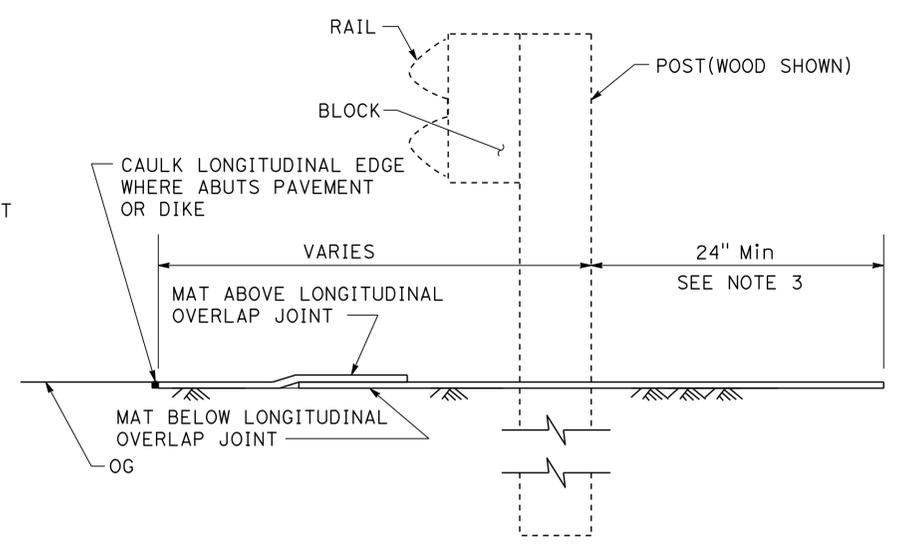
PLAN



PLAN



SECTION A-A



SECTION B-B

VEGETATION CONTROL (RUBBER MAT) UNDER TERMINAL SYSTEM END TREATMENTS

CONSTRUCTION DETAILS

NO SCALE **C-21**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 BRAD COLE
 GUS ESCUTIA
 ROBYN FONG
 GUS ESCUTIA
 03-16-15
 REVISED BY DATE REVISION
 GUS ESCUTIA
 03-16-15

USERNAME => s120300
 DGN FILE => a0s720ga021.dgn



UNIT 1503

PROJECT NUMBER & PHASE

10000206701

LAST REVISION
 08-06-12
 DATE PLOTTED => 29-JUN-2015
 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	26	80

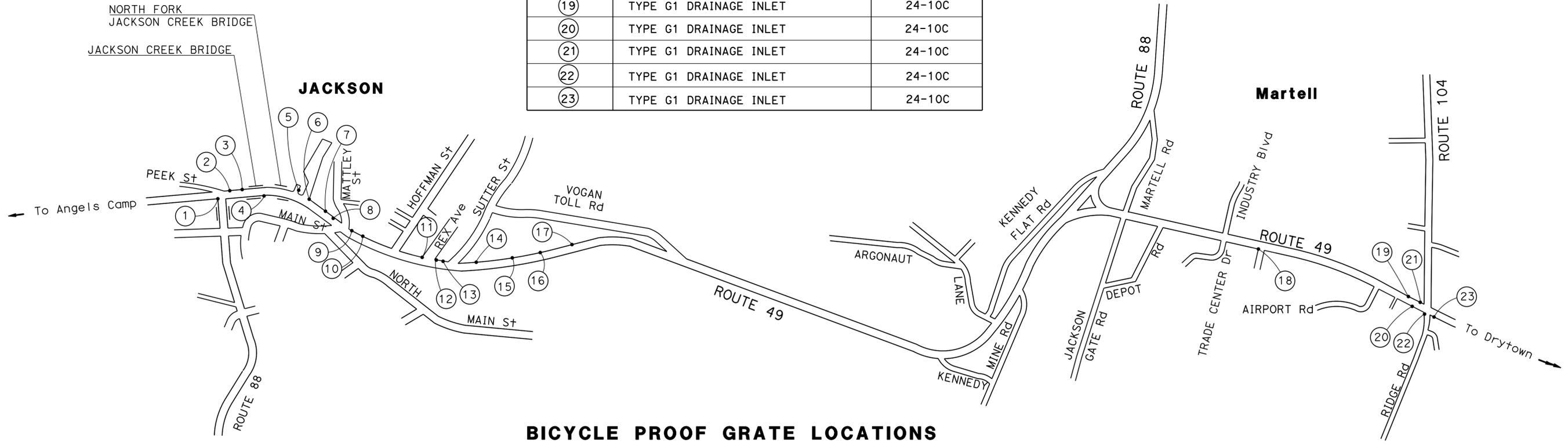
3/15/15
 REGISTERED CIVIL ENGINEER DATE
 3-16-15
 PLANS APPROVAL DATE

ALLEN LAO
 No. 77656
 Exp. 6/30/15
 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.

BICYCLE PROOF GRATE LOCATIONS

DRAINAGE INLET No.	DESCRIPTION	GRATE TYPE
①	TYPE G1 DRAINAGE INLET	24-10C
②	TYPE G1 DRAINAGE INLET	24-10C
③	TYPE G1 DRAINAGE INLET	24-10C
④	TYPE G1 DRAINAGE INLET	24-10C
⑤	TYPE G1 DRAINAGE INLET	24-10C
⑥	TYPE GMP DRAINAGE INLET	36R
⑦	TYPE G1 DRAINAGE INLET	24-10C
⑧	TYPE G1 DRAINAGE INLET	24-10C
⑨	TYPE G1 DRAINAGE INLET	24-10C
⑩	TYPE G1 DRAINAGE INLET	24-10C
⑪	TYPE G1 DRAINAGE INLET	24-10C
⑫	TYPE G1 DRAINAGE INLET	24-10C
⑬	TYPE G0 MODIFIED DRAINAGE INLET	24-10C
⑭	TYPE GDO DRAINAGE INLET	24-10C
⑮	TYPE G1 DRAINAGE INLET	24-10C
⑯	TYPE G1 DRAINAGE INLET	24-10C
⑰	TYPE G1 DRAINAGE INLET	24-10C
⑱	TYPE G0 DRAINAGE INLET	24-10C
⑲	TYPE G1 DRAINAGE INLET	24-10C
⑳	TYPE G1 DRAINAGE INLET	24-10C
㉑	TYPE G1 DRAINAGE INLET	24-10C
㉒	TYPE G1 DRAINAGE INLET	24-10C
㉓	TYPE G1 DRAINAGE INLET	24-10C



BICYCLE PROOF GRATE LOCATIONS

CONSTRUCTION DETAILS
NO SCALE **C-22**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JOSE A. HUERTA
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 SARAVUTH PHIN
 ALLEN LAO
 REVISED BY: [Blank]
 DATE REVISED: [Blank]
 SARAVUTH PHIN
 02-20-15

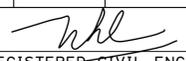
LAST REVISION DATE PLOTTED => 29-JUN-2015
 02-20-15 TIME PLOTTED => 09:14

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE		QUANTITY	PANEL SIZE	No. OF POST AND SIZE	SIGN MESSAGE
	FEDERAL	CALIFORNIA				
(A)	W20-1		2	48" x 48"	1 - 4" x 6"	ROAD WORK AHEAD
(B)	G20-2		15	36" x 18"	1 - 4" x 4"	END ROAD WORK
(C)	W20-1		20	36" x 36"	1 - 4" x 6"	ROAD WORK AHEAD
(F)		CPFIS	2	90" x 60"	2 - 6" x 6"	CONSTRUCTION PROJECT FUNDING INFORMATION SIGN

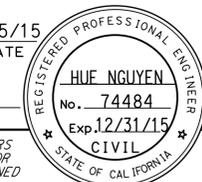
NOTE:
EXACT SIGN LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

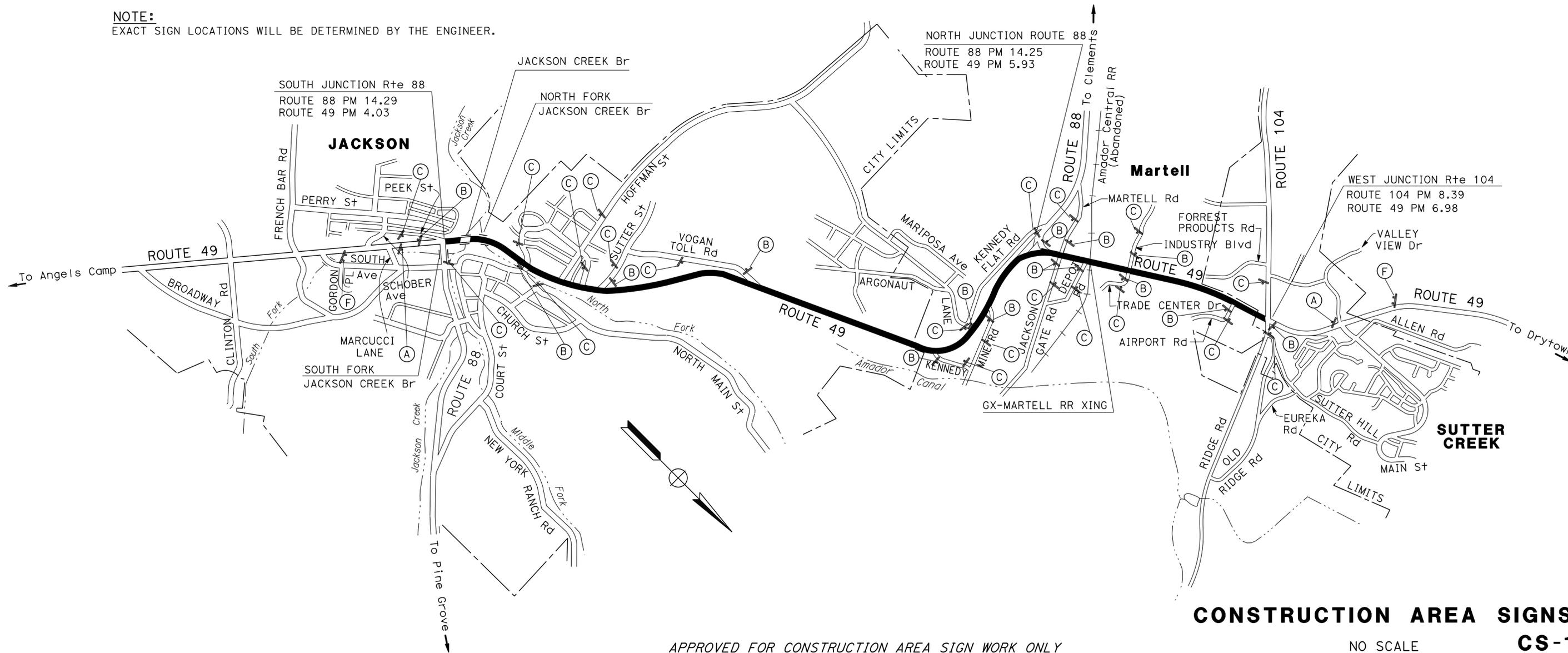
Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	27	80

 3/15/15
 REGISTERED CIVIL ENGINEER DATE

3-16-15
 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.





CONSTRUCTION AREA SIGNS
NO SCALE **CS-1**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION | DATE PLOTTED => 29-JUN-2015
 03-16-15 | TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	28	80

REGISTERED CIVIL ENGINEER	DATE	3/15/15
PLANS APPROVAL DATE	3-16-15	
<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>		

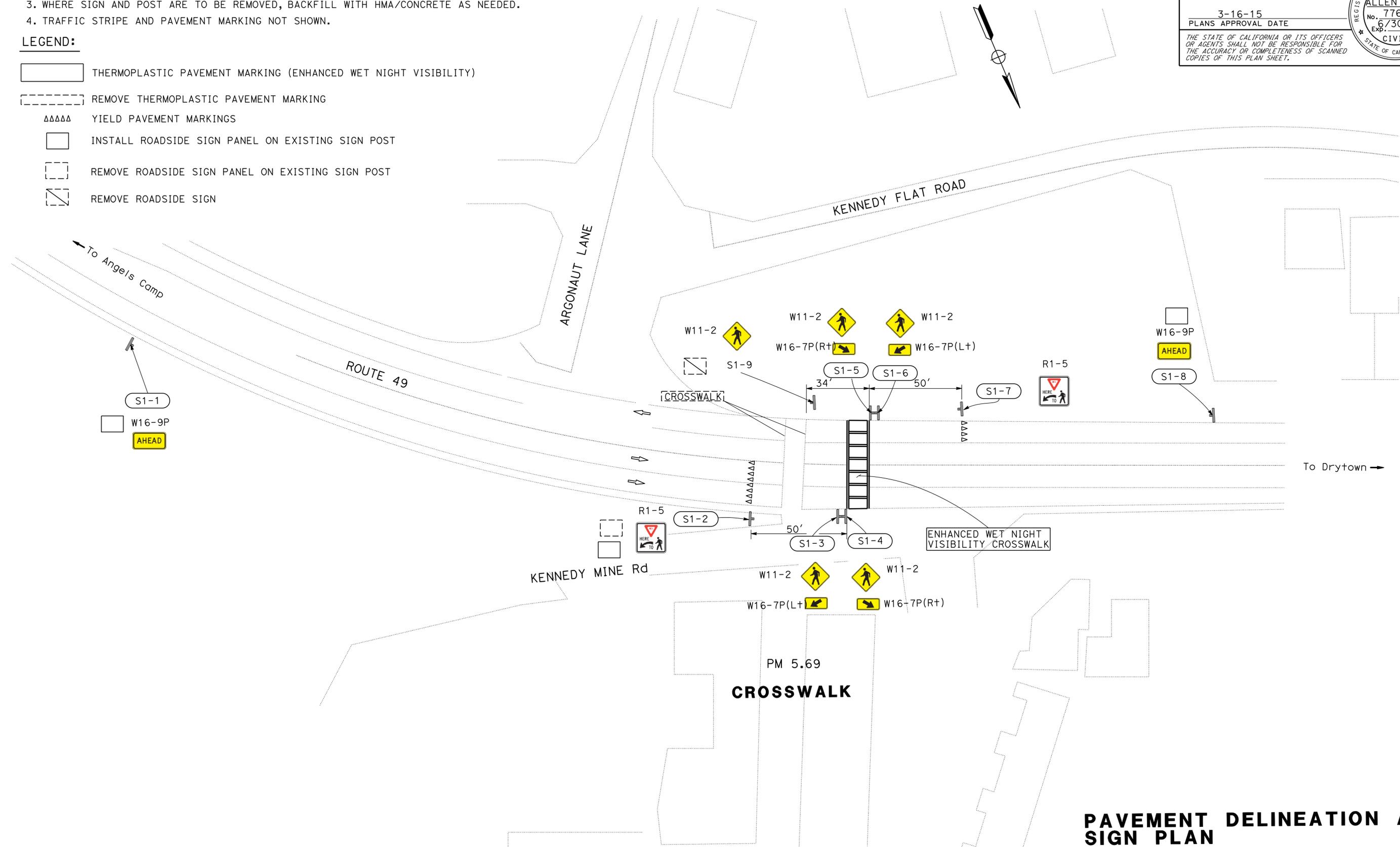
NOTES:

1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. EXACT SIGN LOCATIONS WILL BE DETERMINATE BY THE ENGINEER.
3. WHERE SIGN AND POST ARE TO BE REMOVED, BACKFILL WITH HMA/CONCRETE AS NEEDED.
4. TRAFFIC STRIPE AND PAVEMENT MARKING NOT SHOWN.

LEGEND:

- THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)
- REMOVE THERMOPLASTIC PAVEMENT MARKING
- YIELD PAVEMENT MARKINGS
- INSTALL ROADSIDE SIGN PANEL ON EXISTING SIGN POST
- REMOVE ROADSIDE SIGN PANEL ON EXISTING SIGN POST
- REMOVE ROADSIDE SIGN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JOSE A. HUERTA
 CALCULATED/DESIGNED BY: SARAVUTH PHIN
 CHECKED BY: ALLEN LAO
 REVISED BY: SARAVUTH PHIN
 DATE REVISED: 02-20-15



APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-1

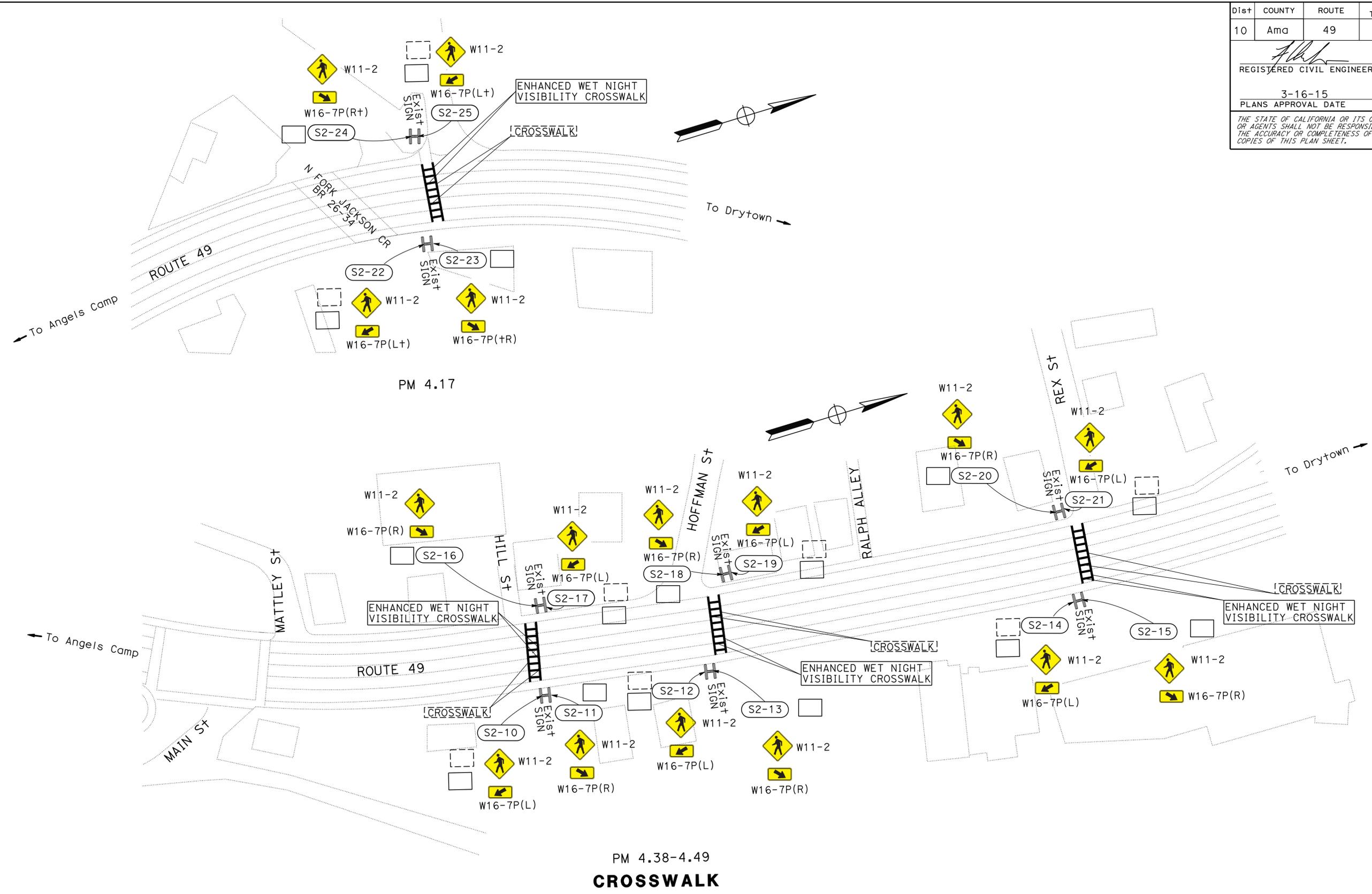
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	29	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	ALLEN LAO
No. 77656	EXP. 6/30/15
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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
CALCULATED/DESIGNED BY	CHECKED BY
SARAVUTH PHIN	ALLEN LAO
REVISOR	DATE
SARAVUTH PHIN	02-20-15



PM 4.38-4.49
CROSSWALK

PAVEMENT DELINEATION AND SIGN PLAN

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

NO SCALE

PD-2

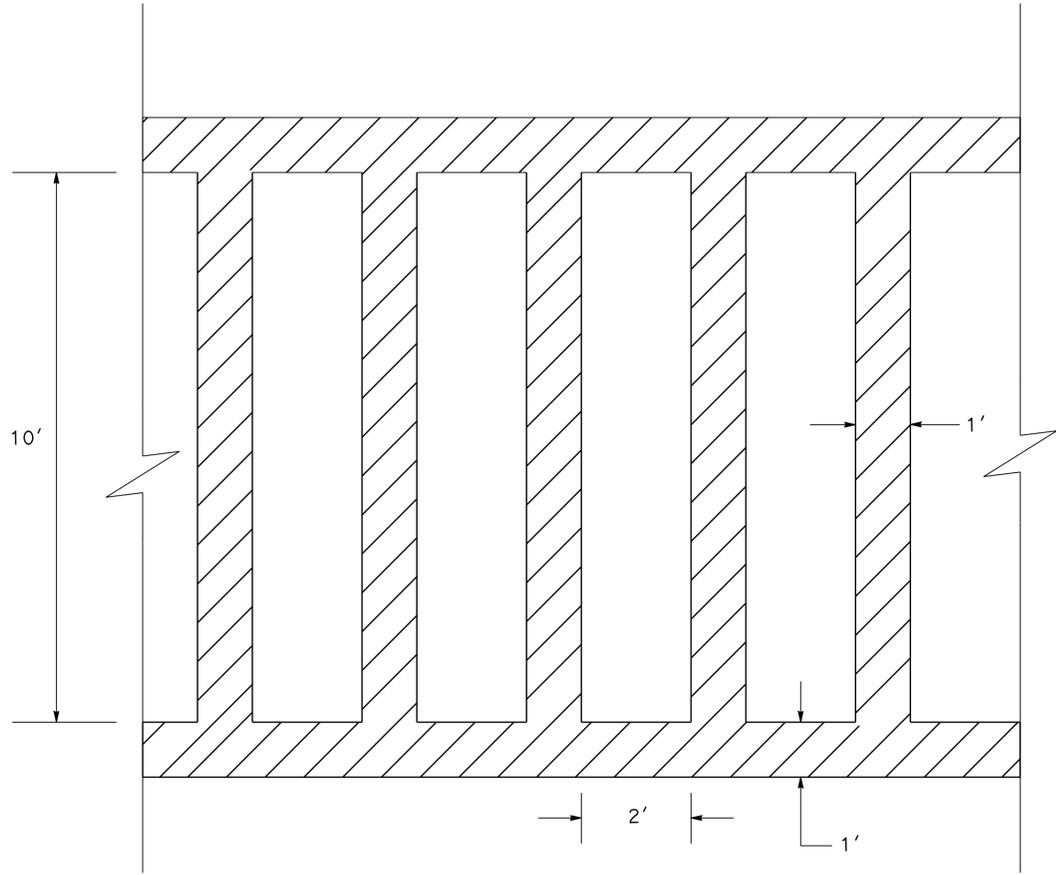
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Alameda	49	4.0/7.0	30	80

<i>Allen Lao</i>	3/15/15
REGISTERED CIVIL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	ALLEN LAO
No. 77656	
EXP. 6/30/15	
CIVIL	

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Caltrans	
FUNCTIONAL SUPERVISOR	JOSE A. HUERTA
CALCULATED-DESIGNED BY	CHECKED BY
SARAVUTH PHIN	ALLEN LAO
REVISOR	DATE
SARAVUTH PHIN	02-20-15

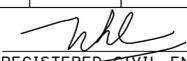


ENHANCED WET NIGHT VISIBILITY CROSSWALK

PAVEMENT DELINEATION DETAIL
 NO SCALE
PDD-1

LAST REVISION | DATE PLOTTED => 29-JUN-2015
 02-20-15 | TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amc	49	4.0/7.0	31	80

 3/15/15
 REGISTERED CIVIL ENGINEER DATE

3-16-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 HUE NGUYEN
 No. 74484
 Exp. 12/31/15
 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.

THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)

POST MILE LIMITS	DIRECTION	LOCATION	DETAIL No.	DETAIL			DETAIL 32	DETAIL 12	DETAIL 27B	DETAIL 37B	DETAIL 38	DETAIL 27C	DETAIL 40
				21	22	29	4"	4"	4"	8"	8"	4"	4"
				4" DOUBLE YELLOW			4" SOLID BROKEN YELLOW	4" BROKEN (36-12) WHITE	4" SOLID WHITE	8" BROKEN WHITE	8" SOLID WHITE	4" BROKEN (12-3) WHITE	4" BROKEN WHITE
LF													
4.00 - 4.10	WB	€	22		365						176		
	EB		38							162			
4.10 - 4.86	WB	€	32,22		200		7,306				50		
	EB		38							50			
4.86 - 5.68	WB	€	22			4,171					238		
	EB		38										
5.68 - 5.80		€	32				1,236						
5.80 - 5.82		€	22		95								
4.00 - 5.82	WB		12,27B,27C				9,167	10,689			522		
	EB		12,27B,27C				3,888	6,553			652		
5.8 - 6.0		€											
Rte 49 Jct Rte 88		€	29, 22		116	1,604							
Rte 49 Jct Rte 88	WB		12,38				940	116		611			
Rte 88 Jct Rte 49	EB		12,38,27B				606	992		116			
Rte 49	NB	€	22		226								
	SB		38,27B					976		1,032			
Jct Rte 88 (5.95 W)		€	38,27B					240		478			
6.0 - 7.0		€	22		1,262								126
		€	29			724							
		€	32				7,998						
ROUTE 88	WB		12,38,27B				4,750	4,450		907	413		
	EB		12,27B,37B,38				4,702	4,828	300	802	50		
ROUTE 88		R+											
PEEK St		L+											
MAIN St		R+	21,38	47						90			
MATTLEY St		L+											
HOFFMAN St		L+	21, 27B	20					40				
VOGAN TOLL Rd		L+	21, 27B	20					40				
KENNEDY MINE Rd		R+											
ARGONAUT LANE		L+	21, 27B	20					100				
DEPOT Rd		R+	21, 27B	20					66				
AIRPORT Rd		R+	21, 27B	20					86				
SUTTER St		L+	21,27B,38	158					55		63		
TRADE CENTER Rd		R+	22,38	60						60			
INDUSTRY Rd		L+	29,38		120					120			
RIDGE Rd		R+	22	60					120	60			
ROUTE 104		L+											
SUBTOTAL				305	2,384	6,619	16,540	24,053	29,351	300	5,015	1,637	126
TOTAL				86,330									

PAVEMENT MARKER (RETROREFLECTIVE)

LOCATION	DIRECTION	LOCATION	TYPE D	TYPE G
4.00 - 4.10	WB	€	34	10
	EB			8
4.10 - 4.86	WB	€	553	4
	EB			4
4.86 - 5.68	WB	€	176	14
	EB			
5.68 - 5.80		€	94	
5.80 - 5.82		€	10	
4.00 - 5.82	WB			200
	EB			90
5.8 - 6.0		€		
Rte 49 Jct Rte 88		€	82	
Rte 49 Jct Rte 88	WB			48
Rte 88 Jct Rte 49	EB			26
Rte 49	NB	€	22	46
	SB			26
Jct Rte 88 (5.95 W)		€	728	
6.0 - 7.0	WB			156
	EB			150
ROUTE 88		R+		
PEEK St		L+		
MAIN St		R+		6
MATTLEY St		L+		
HOFFMAN St		L+		
VOGAN TOLL Rd		L+		
KENNEDY MINE Rd		R+		
ARGONAUT LANE		L+		
DEPOT Rd		R+		
AIRPORT Rd		R+		
SUTTER St		L+		4
TRADE CENTER Rd		R+	8	4
INDUSTRY Rd		L+	8	6
RIDGE Rd		R+	8	4
ROUTE 104		L+		
SUBTOTAL			1,723	806
TOTAL			2,529	

PAVEMENT DELINEATION QUANTITIES PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 MOHAMMED QATAMI
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 CALCULATED/DESIGNED BY
 CECILE NGUYEN
 HUE NGUYEN
 REVISOR
 DATE REVISOR
 3-20-15
 CN

USERNAME => s120300
 DGN FILE => a0s720nc001.dgn

RELATIVE BORDER SCALE IS IN INCHES


UNIT 1512 PROJECT NUMBER & PHASE 10000206701

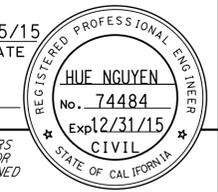
LAST REVISION DATE PLOTTED => 29-JUN-2015
 03-13-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	33	80

 3/15/15
 REGISTERED CIVIL ENGINEER DATE

3-16-15
 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.



NOTES (THIS SHEET ONLY):

1. GUARD RAILING DELINEATORS TO BE SPACED 25' APART.
2. * INCLUDED IN MIDWEST GUARDRAIL SYSTEM QUANTITIES TABLE ON SHEET Q-1.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR
 MOHAMMED QATAMI
 CALCULATED/DESIGNED BY
 CHECKED BY
 CECILE NGUYEN
 HUE NGUYEN
 REVISED BY
 DATE REVISED
 CN
 3-20-15

DELINEATORS

LOCATION	GUARD RAILING DELINEATOR	DELINEATOR (CLASS 1)	
	TYPE	TYPE	
	F	F	G
	EA	EA	
Rte 49 Jct Rte 88 (ISLANDS)	16	12	9
TOTAL	*16	21	

OBJECT MARKERS

LOCATION	TYPE	
	L	K
	EA	
Rte 49 Jct Rte 88 (ISLANDS)	4	4
TOTAL	4	4

PAVEMENT DELINEATION QUANTITIES
PDQ-3



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	34	80

3/15/15
REGISTERED CIVIL ENGINEER DATE

3-16-15
PLANS APPROVAL DATE

HUE NGUYEN
No. 74484
Exp 12/31/15
CIVIL

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:

- * INCLUDED IN MIDWEST GUARDRAIL SYSTEM QUANTITIES TABLE ON SHEET Q-1.
- EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

ROADSIDE SIGN ITEMS

SHEET No.	DIRECTION	SHEET No.	SIGN CODE		SIGN MESSAGE	PANEL SIZE	SINGLE FACED	No. OF POST AND SIZE	BACKGROUND		LEGEND		GRAFFITI FLOW	FURNISH SINGLE SHEET ALUMINIUM SIGN		INSTALL ROADSIDE SIGN PANEL ON EXISTING POST	REMOVE ROADSIDE SIGN PANEL	ROADSIDE SIGN-ONE POST	RETROREFLECTIVE SHEETING (TYPE XI)	TREATED WOOD WASTE	REMOVE ROADSIDE SIGN	
			FEDERAL	CALIFORNIA					SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE	SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE		PREMIUM	(0.063"-UNFRAMED) FOR TYPE XI SHEETING							(0.063"-UNFRAMED)
															SQFT							SQFT
PD-1	FNBT	S1-1	W16-9P		AHEAD PLAQUE	30" x 18"	x		YELLOW	XI	BLACK		x	3.8		1			3.8			
		S1-2	R1-5		YIELD HERE TO PEDESTRIAN (L+) WITH Ped SYMBOL	36" x 36"	x		WHITE		BLACK/RED		x		9.0	1	1					
		S1-3	W11-2 W16-7P(L+)		PEDESTRIAN (SYMBOL) LEFT DIAGONAL ARROW	36" x 36" 30" x 18"	x	1 - 6" x 6"	YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8				1	9.0 3.8			
	FSBT	S1-4	W11-2 W16-7P(R+)		PEDESTRIAN (SYMBOL) RIGHT DIAGONAL ARROW	36" x 36" 30" x 18"	x	1 - 6" x 6"	YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8				1	9.0 3.8			
		S1-5	W11-2 W16-7P(R+)		PEDESTRIAN (SYMBOL) RIGHT DIAGONAL ARROW	36" x 36" 30" x 18"	x	1 - 6" x 6"	YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8				1	9.0 3.8			
		S1-6	W11-2 W16-7P(L+)		PEDESTRIAN (SYMBOL) LEFT DIAGONAL ARROW	36" x 36" 30" x 18"	x	1 - 6" x 6"	YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8				1	9.0 3.8			
	FSBT	S1-7	R1-5		YIELD HERE TO PEDESTRIAN (L+) WITH Ped SYMBOL	36" x 36"	x	1 - 4" x 6"	WHITE		BLACK/RED		x		9.0			1				
		S1-8	W16-9P		AHEAD PLAQUE	30" x 18"	x		YELLOW	XI	BLACK		x	3.8		1						
		S1-9	W11-2 W16-7P(L+)		PEDESTRIAN (SYMBOL) LEFT DIAGONAL ARROW														75	1		
PD-2	FNBT	S2-10	W11-2 W16-7P(L+)		PEDESTRIAN (SYMBOL) LEFT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1	1		9.0 3.8			
		FSBT	S2-11	W11-2 W16-7P(R+)		PEDESTRIAN (SYMBOL) RIGHT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1			9.0 3.8		
	FNBT		S2-12	W11-2 W16-7P(L+)		PEDESTRIAN (SYMBOL) LEFT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1	1		9.0 3.8		
		FSBT	S2-13	W11-2 W16-7P(R+)		PEDESTRIAN (SYMBOL) RIGHT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1			9.0 3.8		
	FNBT		S2-14	W11-2 W16-7P(L+)		PEDESTRIAN (SYMBOL) LEFT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1	1		9.0 3.8		
		FSBT	S2-15	W11-2 W16-7P(R+)		PEDESTRIAN (SYMBOL) RIGHT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1			9.0 3.8		
	FNBT		S2-16	W11-2 W16-7P(R+)		PEDESTRIAN (SYMBOL) RIGHT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1			9.0 3.8		
		FSBT	S2-17	W11-2 W16-7P(L+)		PEDESTRIAN (SYMBOL) LEFT DIAGONAL ARROW	36" x 36" 30" x 18"	x		YELLOW YELLOW	XI XI	BLACK BLACK		x	9.0 3.8		1	1		9.0 3.8		
	TOTAL													161.2	18.0	11	5	6	161.2	75 *	1	

SIGN QUANTITIES SQ-1

LAST REVISION DATE PLOTTED => 29-JUN-2015 07-18-14 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amo	49	4.0/7.0	35	80

<i>nh</i>		3/15/15
REGISTERED CIVIL ENGINEER	DATE	
3-16-15		
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.

NOTES:

- * INCLUDED IN MIDWEST GUARDRAIL SYSTEM QUANTITIES TABLE ON SHEET Q-1.
- EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

ROADSIDE SIGN ITEMS

SHEET No.	DIRECTION	SHEET No.	SIGN CODE		SIGN MESSAGE	PANEL SIZE	SINGLE FACED	No. OF POST AND SIZE	BACKGROUND		LEGEND		GRAFFITI FLOW	FURNISH SINGLE SHEET ALUMINIUM SIGN		INSTALL ROADSIDE SIGN PANEL ON EXISTING POST	REMOVE ROADSIDE SIGN PANEL	ROADSIDE SIGN-ONE POST	RETROREFLECTIVE SHEETING (TYPE XI)	TREATED WOOD WASTE	REMOVE ROADSIDE SIGN	
			FEDERAL	CALIFORNIA					SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE	SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE		PREMIUM	(0.063" UNFRAMED) FOR TYPE XI SHEETING							(0.063" UNFRAMED)
			SQFT	SQFT					EA	EA	EA	SQFT		LB	EA							
PD-2	FNBT	S2-18	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK		x	9.0		1			9.0			
			W16-7P(R+)		RIGHT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
	FSBT	S2-19	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK			x	9.0		1	1		9.0		
			W16-7P(L+)		LEFT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
	FNBT	S2-20	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK			x	9.0		1			9.0		
			W16-7P(R+)		RIGHT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
	FSBT	S2-21	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK			x	9.0		1	1		9.0		
			W16-7P(L+)		LEFT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
	FNBT	S2-22	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK			x	9.0		1	1		9.0		
			W16-7P(L+)		LEFT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
	FSBT	S2-23	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK			x	9.0		1			9.0		
			W16-7P(R+)		LEFT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
	FNBT	S2-24	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK			x	9.0		1			9.0		
			W16-7P(R+)		RIGHT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
	FSBT	S2-25	W11-2		PEDESTRIAN (SYMBOL)	36" x 36"			YELLOW	XI	BLACK			x	9.0		1	1		9.0		
			W16-7P(L+)		LEFT DIAGONAL ARROW	30" x 18"	x		YELLOW	XI	BLACK			x	3.8					3.8		
TOTAL THIS SHEET														102.4		8	4		102.4			
TOTAL SQ-1														161.2	18.0	11	5	6	161.2	75	1	
TOTAL														263.6	18.0	19	9	6	263.6	75 *	1	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
 CALCULATED/DESIGNED BY: CECILE NGUYEN
 CHECKED BY: HUE NGUYEN
 REVISED BY: CN
 DATE REVISED: 3-20-15
 RT: 3-25-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	36	80

REGISTERED CIVIL ENGINEER DATE 3/15/15
 3-16-15 PLANS APPROVAL DATE
 ALLEN LAO No. 77656 Exp. 6/30/15 CIVIL
 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.

MIDWEST GUARDRAIL SYSTEM

PM - PM	SIDE	(N) LAYOUT TYPE	REMOVE GUARDRAIL	MGS (WOOD POST)	ALTERNATIVE FLARED TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	GUARD RAILING DELINEATOR	VEGETATION CONTROL (RUBBER MAT)	TREATED WOOD WASTE
			LF	LF	EA	EA	EA	SQYD	LB
5.45 - 5.55	R+	11E	555	479	2		22	247	7,350
5.82 - 5.91	R+	11E	485	409	2		19	216	6,430
5.93 - 5.96	L+	16B	145	107	1	1	5	48	1,970
6.33 - 6.36	L+	16B	160						2,170
TOTAL THIS SHEET			1,345	995	5	1	46	511	17,920
TOTAL SHEET PDQ-3							16		
TOTAL SHEET SQ-2									75
TOTAL			1,345	995	5	1	62	511	17,995

ROADWAY ITEMS

PM - PM 4.0 - 7.0	HMA (TYPE A) TON	TACK COAT TON	COLD PLANE AC PAVEMENT SQYD
MAINLINE	18,846.3	52.1	113,078
DRIVEWAYS	256.9	0.7	1,542
PUBLIC INTERSECTIONS	421.6	1.2	2,529
SAFETY EDGE	39.03		
HMA DIKE	221.36		
TOTAL	19,784.9	54.0	117,149

ADJUST FRAME AND COVER TO GRADE

PM	DIRECTION	DESCRIPTION	EA
4.01	SB	SEWER - CITY OF JACKSON	1
4.01	SB	SEWER - CITY OF JACKSON	1
4.01	SB	SEWER - CITY OF JACKSON	1
4.28	SB	SEWER - CITY OF JACKSON	1
4.30	SB	SEWER - CITY OF JACKSON	1
4.31	SB	SEWER CLEANOUT - CITY OF JACKSON	1
4.32	SB	SEWER CLEANOUT - CITY OF JACKSON	1
4.40	SB	SEWER - CITY OF JACKSON	1
4.45	SB	WATER - CITY OF JACKSON	1
4.50	SB	WATER - CITY OF JACKSON	1
4.50	SB	SEWER CLEANOUT - CITY OF JACKSON	1
4.60	SB	SEWER - CITY OF JACKSON	1
5.75	NB	SEWER CLEANOUT - AMADOR WATER AGENCY	1
5.76	NB	SEWER - AMADOR WATER AGENCY	1
6.10	SB	WATER - CITY OF JACKSON	4
6.20	SB	WATER - CITY OF JACKSON	3
6.82	NB	SEWER - AMADOR WATER AGENCY	1
6.83	NB	SEWER - AMADOR WATER AGENCY	1
6.90	NB	SEWER - AMADOR WATER AGENCY	1
6.98	NB	SEWER - AMADOR WATER AGENCY	1
TOTAL			25

CURB AND CURB RAMP ITEMS

PM	DESCRIPTION	REMOVE CONCRETE (CURB, GUTTER AND SIDEWALK) CY	ROADWAY EXCAVATION TYPE (Z-2) AERIALY DEPOSITED LEAD CY	REMOVE ASPHALT CONCRETE SURFACING SQFT	MINOR CONCRETE (CURB AND CURB RAMP) CY	CLASS 2 AB CY	DETECTABLE WARNING SURFACE SQFT	REPLACE AC SURFACING CY	PRE/POST CONSTRUCTION SURVEYS EA
4.12	0.1 MILE NORTH OF 49/88 JUNCTION (LEFT SIDE)	4.49	3.39		4.9	3.9	15.0	1.0	
4.12	0.1 MILE NORTH OF 49/88 JUNCTION (RIGHT SIDE)		0.16	17.5	0.2	0.2	15.0	1.3	
4.32	NW CORNER MAIN STREET INTERSECTION		0.30	40.0	0.5	0.4	28.0		
4.32	MIDBLOCK MAIN STREET INTERSECTION		**5.25	*718.8	12.1	*9.9	76.5	46.8	
4.32	SE CORNER OF MAIN STREET INTERSECTION	2.92	2.20		4.0	3.6	40.5	0.5	
4.32	NE CORNER OF MAIN STREET INTERSECTION						30.0	3.5	
4.50	AT REX ROAD INTERSECTION (RIGHT SIDE)	3.72	2.81		5.0	3.9	15.0	0.6	
5.93	CURBS IN ISLAND AT SR49/88 JUNCTION			133.8	4.7			9.6	
6.10	NW AND SW CORNER OF MARTELL/JACKSON GATE Rd			15.6	0.4			0.4	
6.37	NW CORNER OF TRADE CENTER Blvd INTERSECTION	9.34	7.05		10.0	7.3	95.0	1.5	
6.37	SW CORNER OF TRADE CENTER Blvd INTERSECTION	9.10	**6.86		10.0	**7.9	12.6	1.2	
6.37	NE CORNER OF TRADE CENTER Blvd INTERSECTION	9.70	7.32		11.0	8.6	25.2	1.4	1
6.37	SE CORNER OF TRADE CENTER Blvd INTERSECTION	7.02	5.29		6.0	4.8	15.3	1.2	
TOTAL		46.29	40.63	925.7	68.80	50.5	368.1	69	1

EXISTING TRAFFIC MONITORING SYSTEM ELEMENTS

COUNTY	ROUTE	PM	Dir	LOCATION	TYPE
Ama	49	4.25	N	NB 49 AT ROUTE 88 ON SW QUADRANT	TMS
Ama	49	4.26		MAIN STREET	SIGNAL
Ama	49	4.29		JUNCTION ROUTE 88/PEEK STREET	SIGNAL
Ama	49	5.93		ISLAND AT MARTELL SIGNAL JUNCTION ROUTE 88	TMS
Ama	49	6.10	N	JACKSON GATE Rd/MARTELL Rd	SIGNAL
Ama	49	6.10		JACKSON GATE Rd/MARTELL Rd	CCTV
Ama	49	6.21	N	DEPOT Rd	TMS
Ama	49	6.21	S	DEPOT Rd	TMS
Ama	49	6.40		INDUSTRY Blvd/TRADE CENTER Dr	SIGNAL
Ama	49	6.96		VALLEY VIEW WAY	SIGNAL
Ama	49	6.98		SR 104 (RIDGE Rd)	SIGNAL

SUMMARY OF QUANTITIES Q-1

* INCLUDES QUANTITY FOR CURB AND GUTTER.
 ** INCLUDES QUANTITY FOR BACKFILLING THE HOLES LEFT AFTER REMOVING THE GUARDRAIL POSTS.
 *** MATERIAL TO BE USED AS BACKFILL AT SITE LOCATION. CANNOT BE TRANSPORTED OFFSITE.

LAST REVISION DATE PLOTTED => 29-JUN-2015 02-20-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	37	80

 3/15/15
 REGISTERED CIVIL ENGINEER DATE

3-16-15
 PLANS APPROVAL DATE

No. 77656
 Exp. 6/30/15
 CIVIL

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.

**** LOCATED IN THE ISLANDS AT NORTH JUNCTION 88.
 ***** INCLUDED IN ROADWAY ITEMS SUMMARY OF QUANTITY.

SAFETY EDGE (CASE C)

PM - PM	SIDE	(N)	HMA	SHOULDER
		LENGTH	(TYPE A)	BACKING
		MILE	TON	TON
4.91 - 5.01	L+	0.10	2.23	7.2
5.04 - 5.42	L+	0.38	8.47	27.2
5.47 - 5.55	L+	0.08	1.78	5.8
5.58 - 5.66	L+	0.08	1.78	5.8
5.68 - 5.72	L+	0.04	0.89	2.9
5.76 - 6.02	R+	0.26	5.80	18.7
5.87 - 5.94	L+	0.07	1.56	5.1
5.97 - 6.02	R+	0.05	1.12	3.7
6.11 - 6.16	L+	0.05	1.12	3.7
6.32 - 6.35	R+	0.03	0.67	2.1
6.38 - 6.50	L+	0.12	2.68	8.6
6.51 - 6.58	R+	0.07	1.56	5.1
6.51 - 6.80	L+	0.29	6.47	20.8
6.83 - 6.86	L+	0.03	0.67	2.1
6.88 - 6.98	L+	0.10	2.23	7.2
TOTAL			39.03*****	126

DIKE

PM - PM	SIDE	REMOVE AC DIKE	PLACE HOT MIX ASPHALT			HMA (TYPE A)
			(TYPE A)	(TYPE D)	(TYPE E)	
			LF	LF	LF	
4.17 - 4.18	R+	25	25		0.68	
4.18 - 4.19	R+	25	25		0.68	
4.17 - 4.28	L+	440	440	46.5	13.14	
4.58 - 4.72	R+	720	720		19.44	
4.75 - 4.77	R+	130		130	3.38	
4.78 - 4.80	R+	130		130	3.38	
4.81 - 4.83	R+	165		165	4.29	
4.85 - 4.87	R+	165		165	4.29	
4.88 - 5.09	R+	1,100		1,100	28.60	
5.10 - 5.37	R+	1,400		1,400	36.40	
5.39 - 5.43	L+	200		200	5.20	
5.54 - 5.58	R+	215				
5.93	****	206				
6.12 - 6.17	R+	240		240	6.24	
6.13 - 6.14	L+	40		40	1.04	
6.14 - 6.15	L+	40	40		1.08	
6.14 - 6.23	L+	450		450	11.70	
6.38 - 6.48	R+	550		550	14.30	
6.56 - 6.72	R+	825	825		22.28	
6.73 - 6.80	R+	375		375	9.75	
6.82 - 6.87	R+	275	275		7.43	
6.88 - 6.94	R+	340	340		9.18	
TOTAL		6,256	3,390	46.5	2,445	221.36*****

NOTE: NO DIKE WORK ALLOWED BETWEEN PM 6.20 AND PM 6.33 ON RIGHT SIDE.

DRAINAGE ITEMS

DRAINAGE INLET No.	DESCRIPTION	(N) GRATE TYPE	MISCELLANEOUS IRON AND STEEL	DRAINAGE INLET MARKER	ADJUST FRAME AND GRATE TO GRADE
			LB	EA	EA
①	TYPE G1 DRAINAGE INLET	24-10C	202	1	
②	TYPE G1 DRAINAGE INLET	24-10C	202	1	
③	TYPE G1 DRAINAGE INLET	24-10C	202	1	
④	TYPE G1 DRAINAGE INLET	24-10C	202		
⑤	TYPE G1 DRAINAGE INLET	24-10C	202	1	
⑥	TYPE GMP DRAINAGE INLET	36R	236		
⑦	TYPE G1 DRAINAGE INLET	24-10C	202	1	
⑧	TYPE G1 DRAINAGE INLET	24-10C	202	1	1
⑨	TYPE G1 DRAINAGE INLET	24-10C	202	1	
⑩	TYPE G1 DRAINAGE INLET	24-10C	202		
⑪	TYPE G1 DRAINAGE INLET	24-10C	202		
⑫	TYPE G1 DRAINAGE INLET	24-10C	202	1	
⑬	TYPE G0 MODIFIED DRAINAGE INLET	24-10C	404	1	
⑭	TYPE GDO DRAINAGE INLET	24-10C	391	1	
⑮	TYPE G1 DRAINAGE INLET	24-10C	202		
⑯	TYPE G1 DRAINAGE INLET	24-10C	202		
⑰	TYPE G1 DRAINAGE INLET	24-10C	202		
⑱	TYPE G0 DRAINAGE INLET	24-10C	202	1	
⑲	TYPE G1 DRAINAGE INLET	24-10C	202	1	
⑳	TYPE G1 DRAINAGE INLET	24-10C	202	1	
㉑	TYPE G1 DRAINAGE INLET	24-10C	202	1	
㉒	TYPE G1 DRAINAGE INLET	24-10C	202	1	
㉓	TYPE G1 DRAINAGE INLET	24-10C	202	1	
TOTAL			5,071	16	1

SUMMARY OF QUANTITIES Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN
 Saravuth Phin
 Revised By: Saravuth Phin
 Date Revised: 02-20-15
 Calculated/Designed By: Saravuth Phin
 Checked By: Allen Lao
 Functional Supervisor: Jose A. Huerta
 State of California - Caltrans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	38	80

3/15/15
 REGISTERED ELECTRICAL ENGINEER DATE
 3-16-15
 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.

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
 No. 16657
 Exp. 06/30/16
 ELECTRICAL
 STATE OF CALIFORNIA

LEGEND:

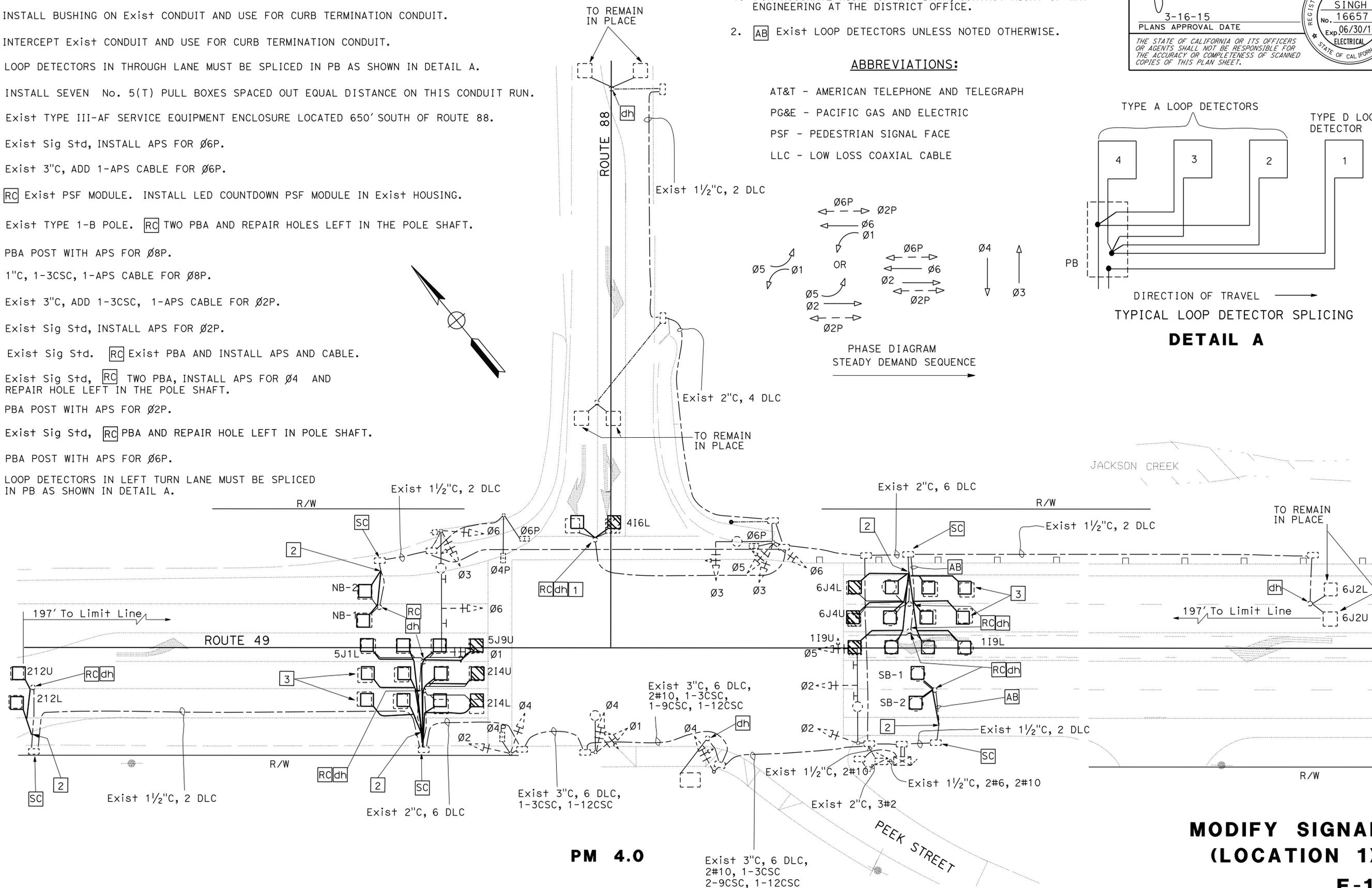
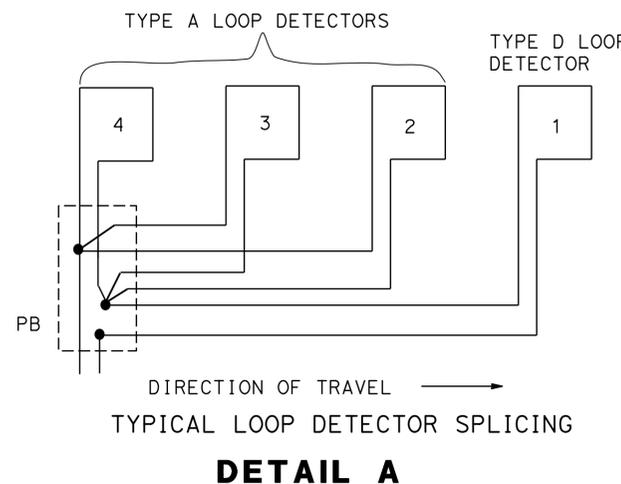
- 1 INSTALL BUSHING ON Exist CONDUIT AND USE FOR CURB TERMINATION CONDUIT.
- 2 INTERCEPT Exist CONDUIT AND USE FOR CURB TERMINATION CONDUIT.
- 3 LOOP DETECTORS IN THROUGH LANE MUST BE SPLICED IN PB AS SHOWN IN DETAIL A.
- 4 INSTALL SEVEN No. 5(T) PULL BOXES SPACED OUT EQUAL DISTANCE ON THIS CONDUIT RUN.
- 5 Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE LOCATED 650' SOUTH OF ROUTE 88.
- 6 Exist Sig Std, INSTALL APS FOR Ø6P.
- 7 Exist 3"C, ADD 1-APS CABLE FOR Ø6P.
- 8 RC Exist PSF MODULE. INSTALL LED COUNTDOWN PSF MODULE IN Exist HOUSING.
- 9 Exist TYPE 1-B POLE. RC TWO PBA AND REPAIR HOLES LEFT IN THE POLE SHAFT.
- 10 PBA POST WITH APS FOR Ø8P.
- 11 1"C, 1-3CSC, 1-APS CABLE FOR Ø8P.
- 12 Exist 3"C, ADD 1-3CSC, 1-APS CABLE FOR Ø2P.
- 13 Exist Sig Std, INSTALL APS FOR Ø2P.
- 14 Exist Sig Std. RC Exist PBA AND INSTALL APS AND CABLE.
- 15 Exist Sig Std, RC TWO PBA, INSTALL APS FOR Ø4 AND REPAIR HOLE LEFT IN THE POLE SHAFT.
- 16 PBA POST WITH APS FOR Ø2P.
- 17 Exist Sig Std, RC PBA AND REPAIR HOLE LEFT IN POLE SHAFT.
- 18 PBA POST WITH APS FOR Ø6P.
- 19 LOOP DETECTORS IN LEFT TURN LANE MUST BE SPLICED IN PB AS SHOWN IN DETAIL A.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. AB Exist LOOP DETECTORS UNLESS NOTED OTHERWISE.

ABBREVIATIONS:

AT&T - AMERICAN TELEPHONE AND TELEGRAPH
 PG&E - PACIFIC GAS AND ELECTRIC
 PSF - PEDESTRIAN SIGNAL FACE
 LLC - LOW LOSS COAXIAL CABLE



PM 4.0

MODIFY SIGNAL (LOCATION 1)

E-1

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

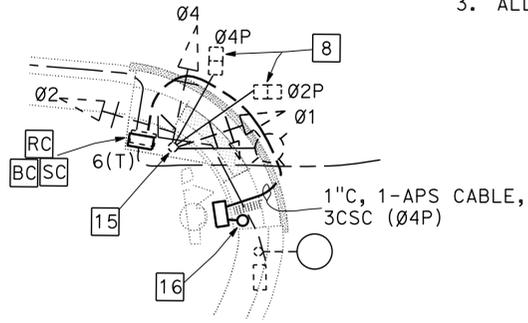
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	39	80

3/15/15
 REGISTERED ELECTRICAL ENGINEER DATE
 3-16-15
 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.

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
 No. 16657
 Exp. 06/30/16
 ELECTRICAL
 STATE OF CALIFORNIA

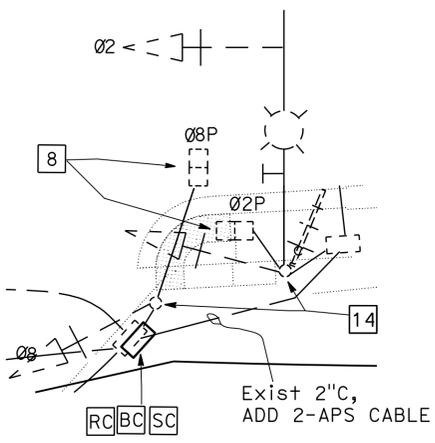
NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- [AB] Exist LOOP DETECTORS UNLESS NOTED OTHERWISE.
- ALL PULL BOXES MUST BE No. 5(T) UNLESS NOTED OTHERWISE.



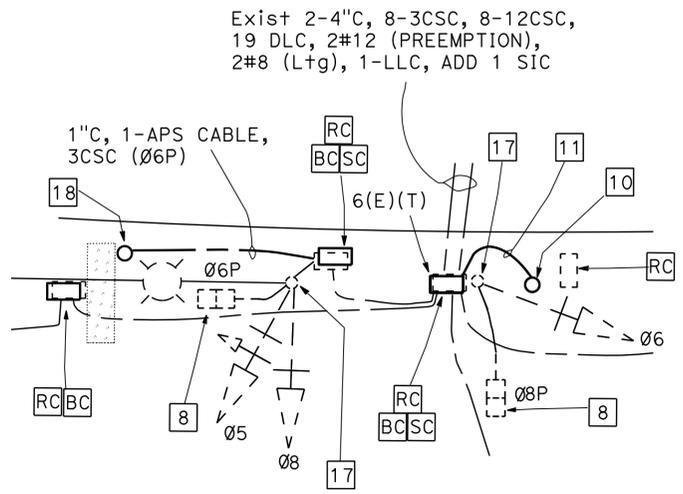
DETAIL A

NO SCALE



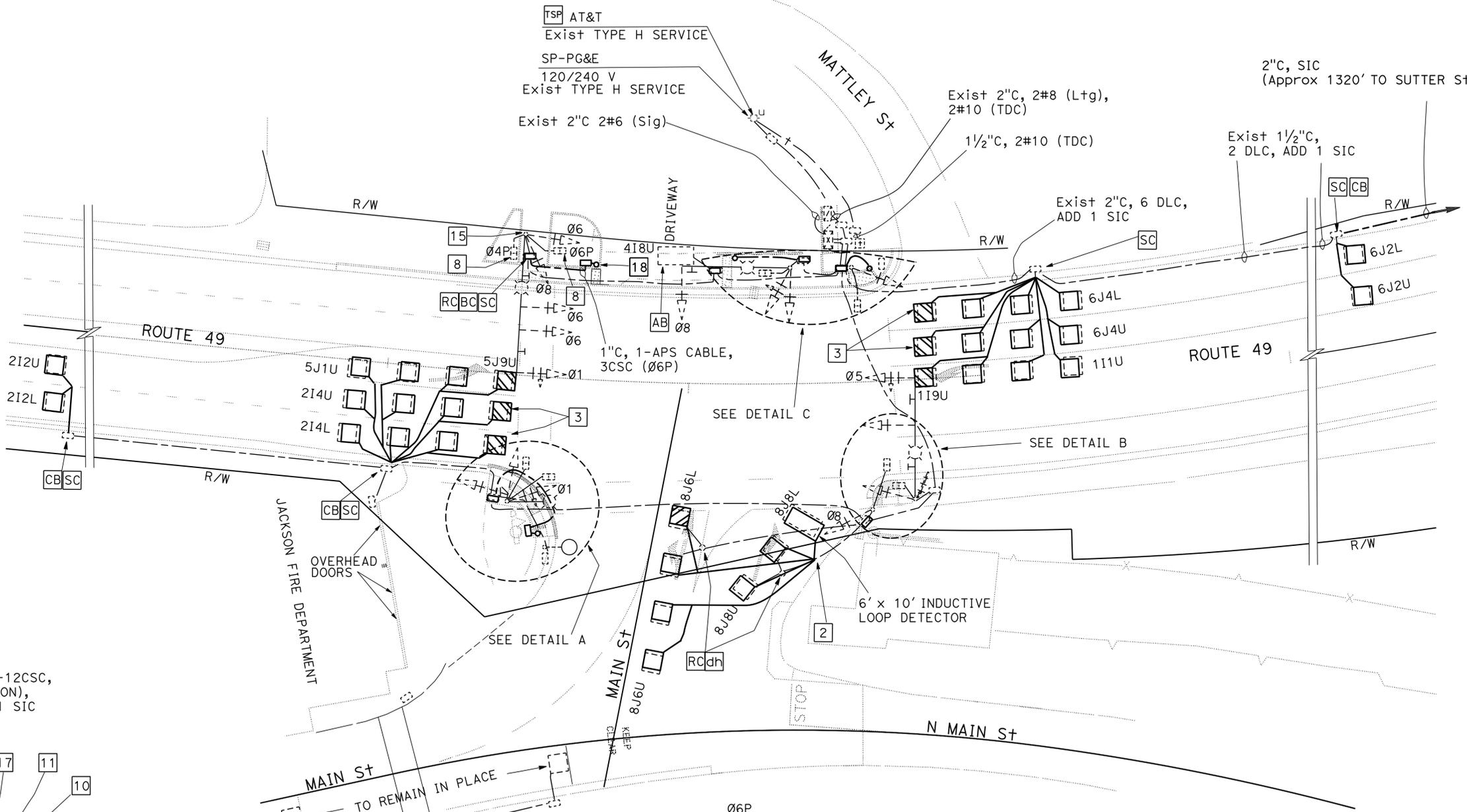
DETAIL B

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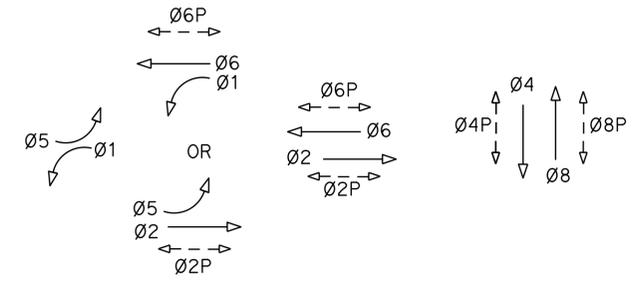


DETAIL C

NO SCALE



PM 4.32



PHASE DIAGRAM
STEADY DEMAND SEQUENCE

**MODIFY SIGNAL
(LOCATION 2)**

SCALE: 1"=20' **E-2**

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUN
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 REVISED BY: FRED IYASERE
 DATE REVISED: 03-19-15
 FT

LAST REVISION: DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	40	80

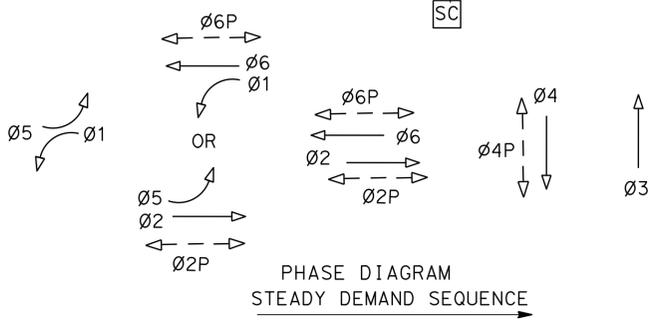
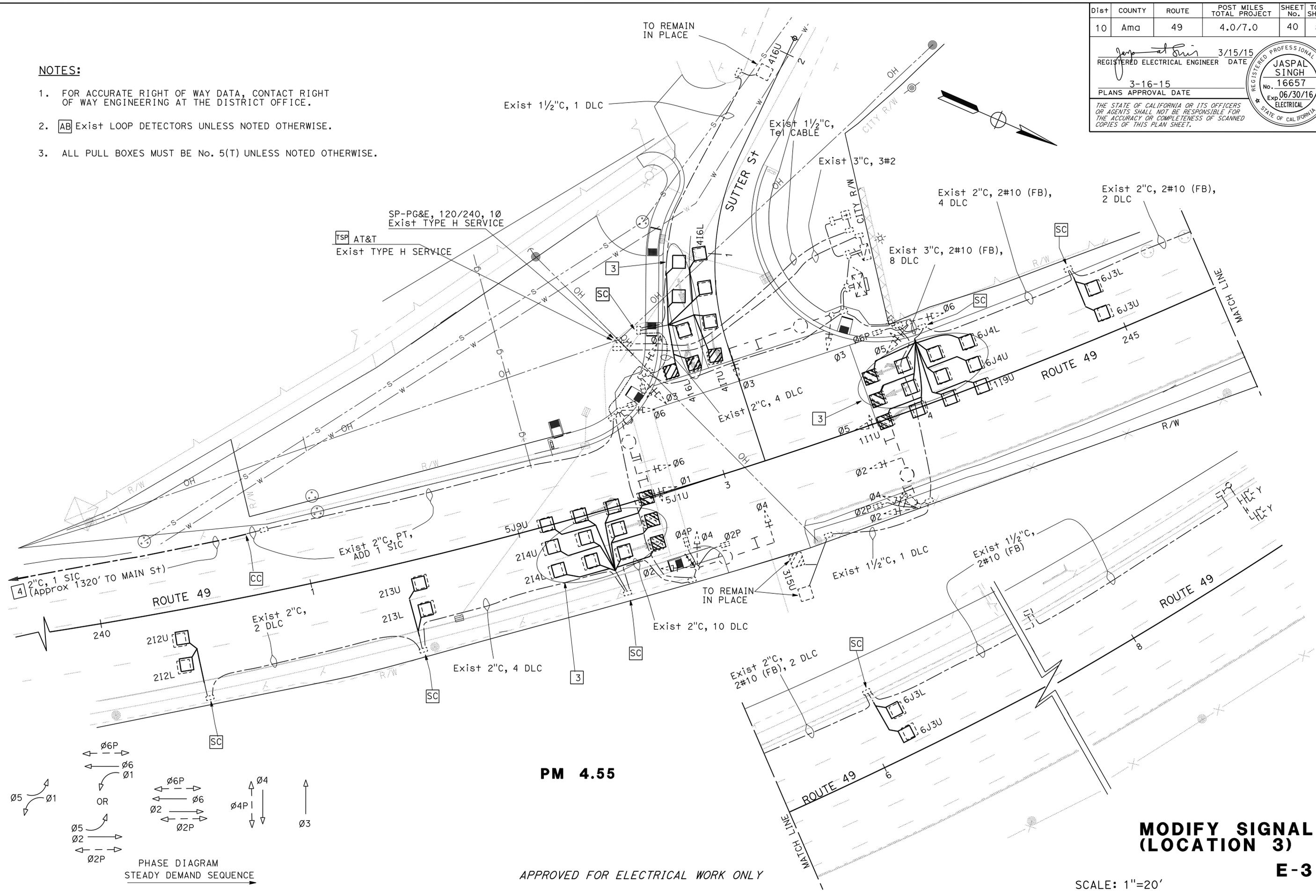
<i>Jaspal Singh</i>	3/15/15
REGISTERED ELECTRICAL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
 No. 16657
 Exp. 06/30/16
 ELECTRICAL
 STATE OF CALIFORNIA

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

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- AB Exist LOOP DETECTORS UNLESS NOTED OTHERWISE.
- ALL PULL BOXES MUST BE No. 5(T) UNLESS NOTED OTHERWISE.



PM 4.55

APPROVED FOR ELECTRICAL WORK ONLY

MODIFY SIGNAL (LOCATION 3)
E-3

SCALE: 1"=20'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Electrans ELECTRICAL DESIGN	ALI BAKHDOD	FRED IYASERE	03-19-15
	CHECKED BY	DATE REVISED	
	JASPAL SINGH		
	DESIGNED BY		
	FRED IYASERE		
	CALCULATED BY		
	JASPAL SINGH		
	BY		
	FRED IYASERE		

LAST REVISION | DATE PLOTTED => 29-JUN-2015
00-00-00 | TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	41	80

<i>Jaspal Singh</i>	3/15/15
REGISTERED ELECTRICAL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

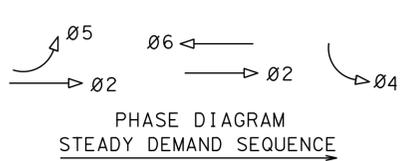
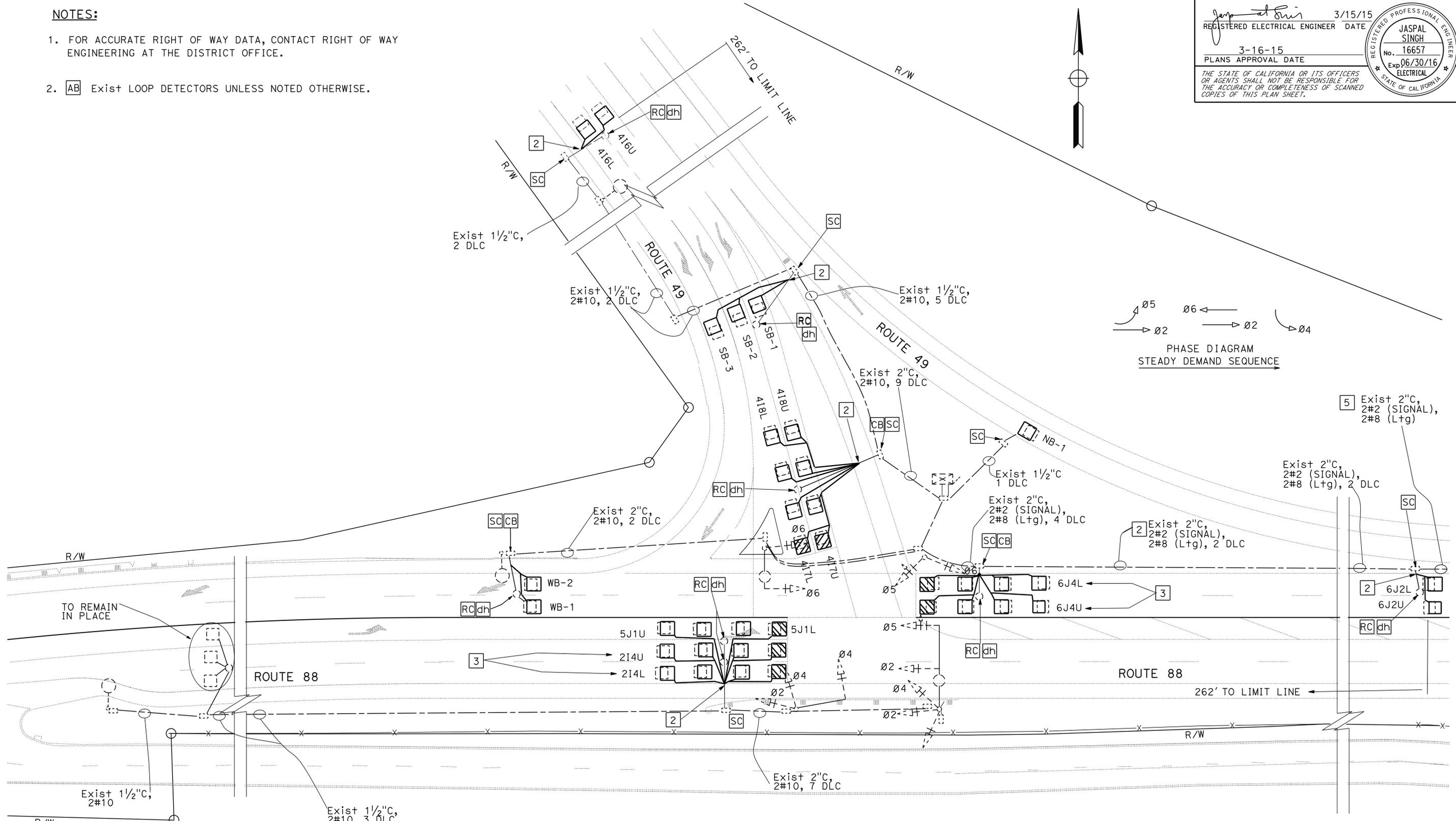
REGISTERED PROFESSIONAL ENGINEER	JASPAL SINGH
No.	16657
Exp	06/30/16
ELECTRICAL	

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:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- AB** Exist LOOP DETECTORS UNLESS NOTED OTHERWISE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: JASPAL SINGH
 CHECKED BY: JASPAL SINGH
 REVISED BY: FRED IYASERE
 DATE REVISED: 03-19-15
 FI
 03-19-15



PM 5.96

MODIFY SIGNAL (LOCATION 4)

SCALE: 1" = 20'

E-4

APPROVED FOR ELECTRICAL WORK ONLY

NOTES:

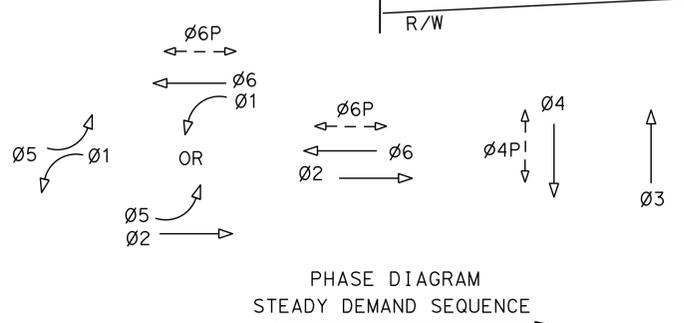
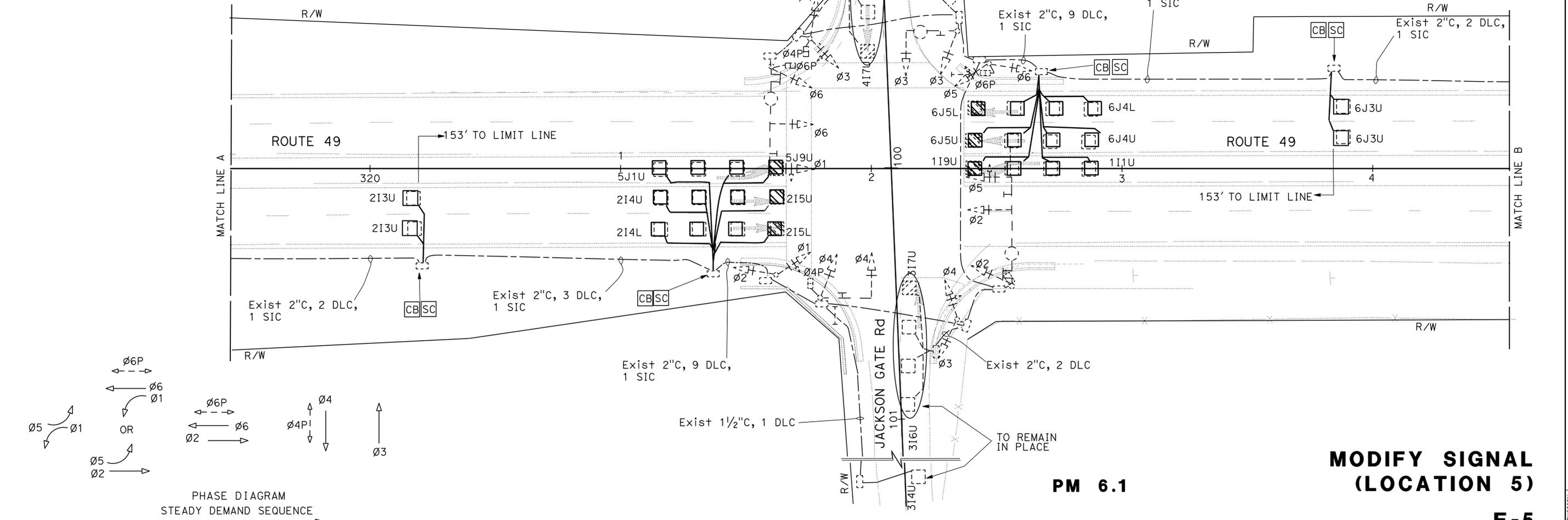
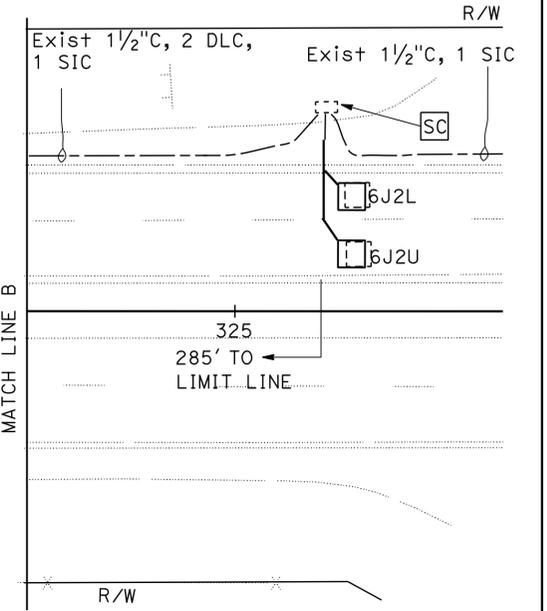
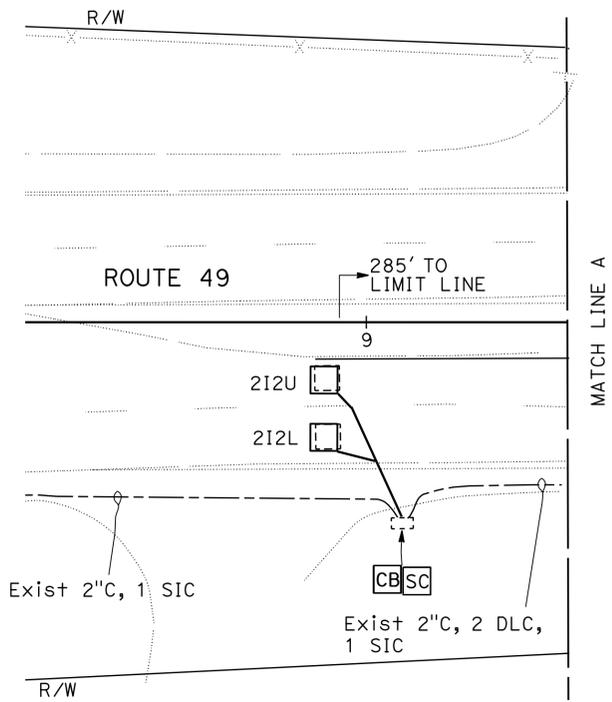
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- [AB]** Exist LOOP DETECTORS UNLESS NOTED OTHERWISE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	42	80

3/15/15
 REGISTERED ELECTRICAL ENGINEER DATE
 3-16-15
 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.

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
 No. 16657
 Exp. 06/30/16
 ELECTRICAL
 STATE OF CALIFORNIA



MODIFY SIGNAL (LOCATION 5)

PM 6.1

E-5

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1" = 20'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	43	80

<i>Jaspal Singh</i>	3/15/15
REGISTERED ELECTRICAL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
 No. 16657
 Exp. 06/30/16
 ELECTRICAL
 STATE OF CALIFORNIA

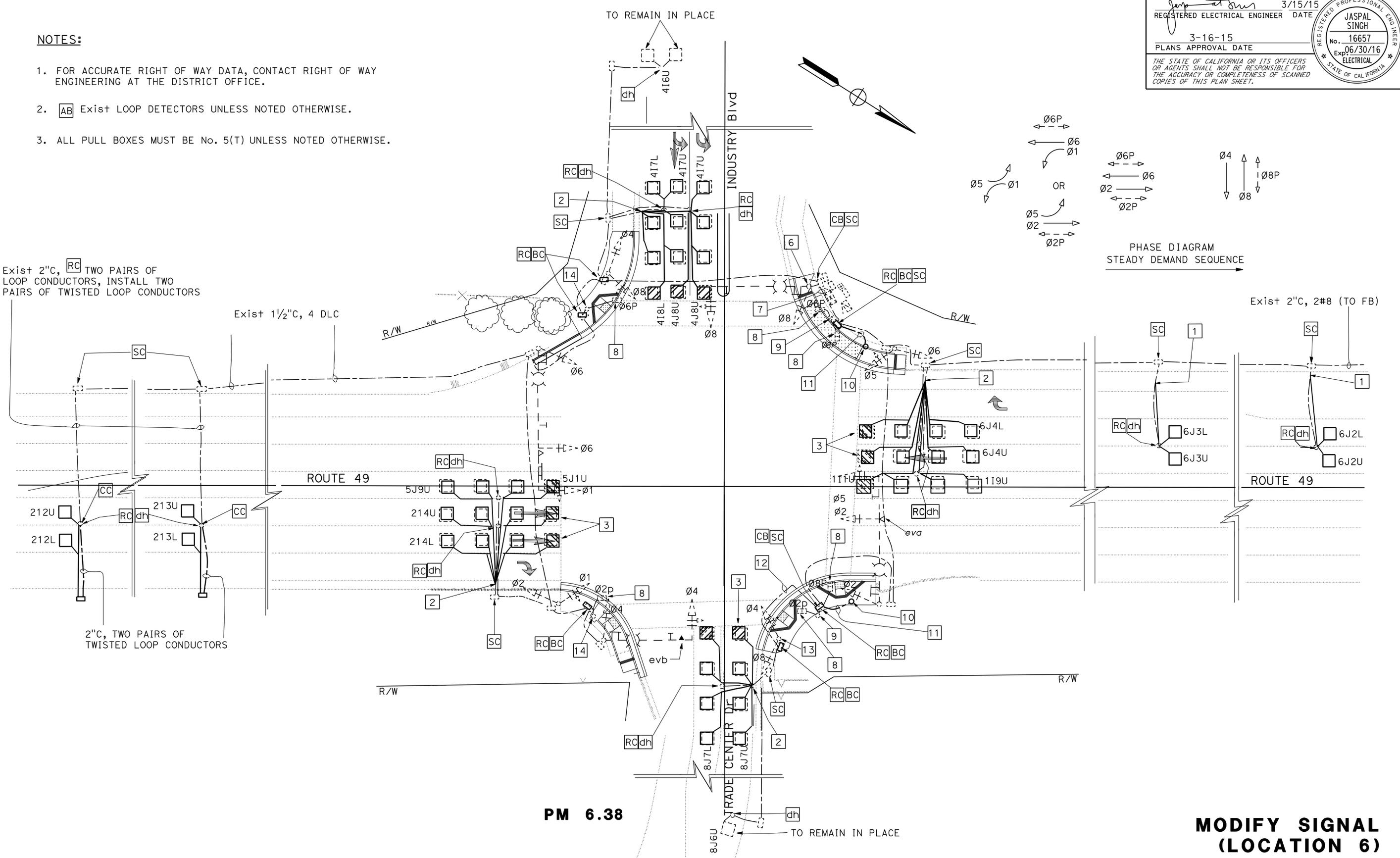
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - AB** Exist LOOP DETECTORS UNLESS NOTED OTHERWISE.
 - ALL PULL BOXES MUST BE No. 5(T) UNLESS NOTED OTHERWISE.

Exist 2" C, **RC** TWO PAIRS OF LOOP CONDUCTORS, INSTALL TWO PAIRS OF TWISTED LOOP CONDUCTORS

Exist 1 1/2" C, 4 DLC

2" C, TWO PAIRS OF TWISTED LOOP CONDUCTORS



PM 6.38

MODIFY SIGNAL (LOCATION 6)

E-6

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1"=20'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALT BAKHDOD
 CALCULATED/DESIGNED BY: CHECKED BY:
 FRED IYASERE JASPAL SINGH
 REVISED BY: DATE REVISED: 03-19-15
 FI

LAST REVISION: DATE PLOTTED => 29-JUN-2015
 00-00-00 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	44	80

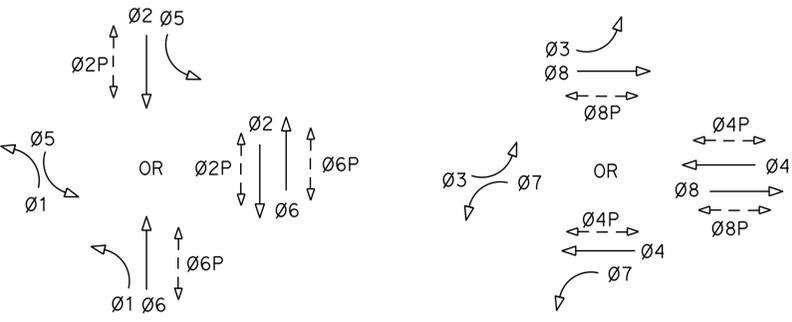
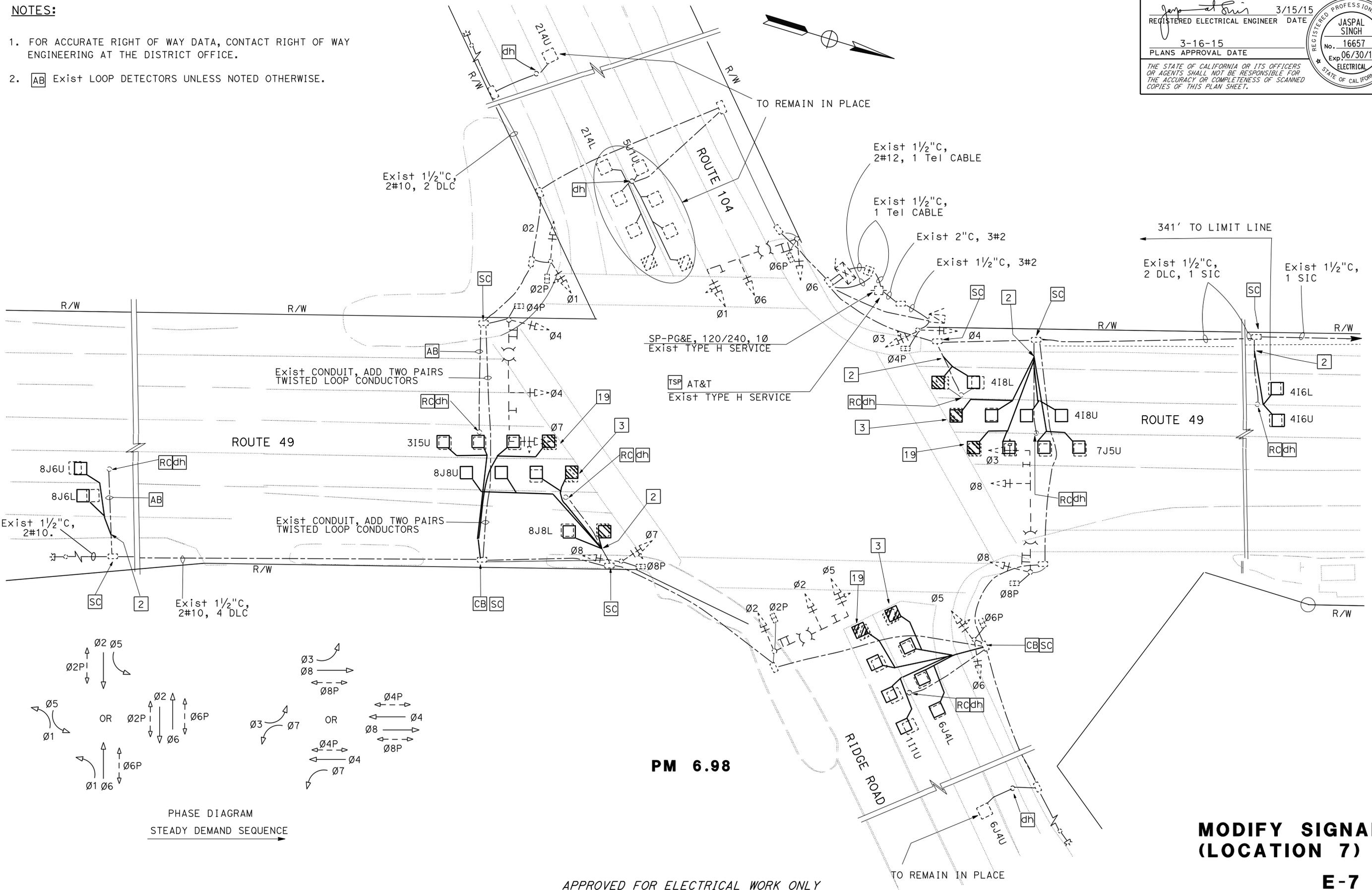
<i>Jaspal Singh</i>	3/15/15
REGISTERED ELECTRICAL ENGINEER	DATE
3-16-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
 No. 16657
 Exp. 06/30/16
 ELECTRICAL
 STATE OF CALIFORNIA

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

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- AB** Exist LOOP DETECTORS UNLESS NOTED OTHERWISE.



PHASE DIAGRAM
STEADY DEMAND SEQUENCE

PM 6.98

APPROVED FOR ELECTRICAL WORK ONLY

**MODIFY SIGNAL
(LOCATION 7)**

E-7

SCALE: 1" = 20'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUNI
 CALCULATED/DESIGNED BY: JASPAL SINGH
 CHECKED BY: JASPAL SINGH
 REVISED BY: JASPAL SINGH
 DATE REVISED: 03-19-15
 FI: 03-19-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amg	49	4.0/7.0	45	80

Jaspal Singh 3/15/15
 REGISTERED ELECTRICAL ENGINEER DATE
 3-16-15
 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.

NOTE:

THE QUANTITIES SHOWN ON THIS TABLE ARE NOT SEPARATE PAY ITEMS, FOR INFORMATION ONLY. FOR COMPLETE ELECTRICAL WORK, SEE ELECTRICAL PLAN SHEETS.

MODIFY SIGNAL

SHEET No.	LOCATION No.	TYPE A LOOP DETECTOR	TYPE D LOOP DETECTOR	No. 5(T) PB	No. 6(T) PB	No. 6 (E)(T) PB	EA				LF					
							LED COUNTDOWN PSF MODULE	APS ASSEMBLY	PBA POST	PPA POST FOUNDATION	1"C, TYPE 1	1½"C TYPE 3	2"C, TYPE 3	3CSC	APS CABLE	SIC
E-1	1	25	7	-	-	-	-	-	-	-	-	-	-	-	-	-
E-2	2	28	7	6	1	1	8	8	4	4	80	-	40	100	100	180
E-3	3	32	9	7	-	-	-	-	-	-	-	-	1300	-	-	1500
E-4	4	31	7	-	-	-	-	-	-	-	-	-	-	-	-	-
E-5	5	24	6	-	-	-	-	-	-	-	-	-	-	-	-	-
E-6	6	44	12	8	-	-	6	6	2	2	30	50	-	180	180	-
E-7	7	24	8	-	-	-	-	-	-	-	-	-	-	-	-	-

ELECTRICAL QUANTITIES

E-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: FRED IYASERE
 CHECKED BY: JASPAL SINGH
 REVISED BY: F1
 DATE REVISED: 03-19-15



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	46	80

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Grace M. Tsushima
REGISTERED PROFESSIONAL ENGINEER
No. C49814
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.

TO ACCOMPANY PLANS DATED 3-16-15

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
∅	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

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

R

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

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
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
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
WWLOL	WINGWALL LAYOUT LINE
X Sec	CROSS SECTION
Xing	CROSSING
Yr	YEAR
Yrs	YEARS

U

V

W

X

Y

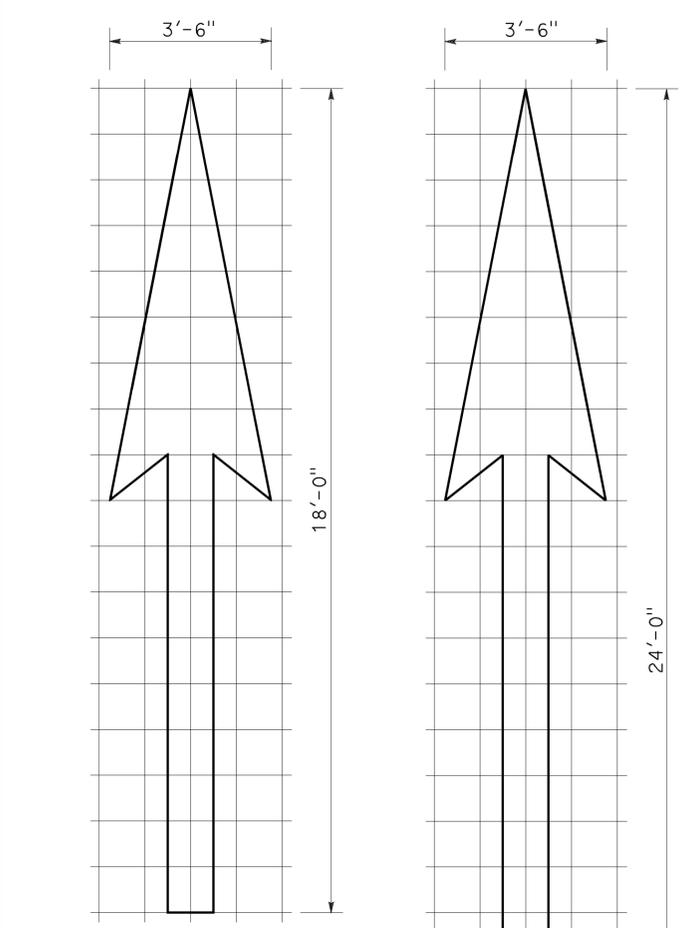
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	47	80

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

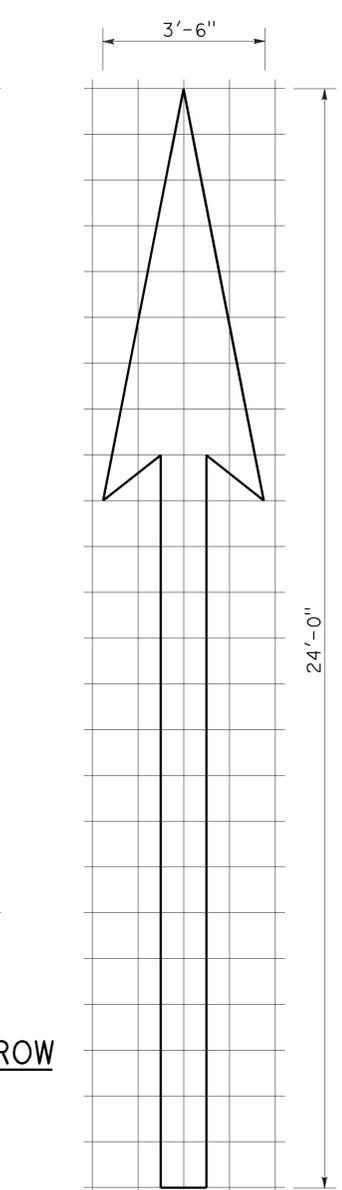
April 20, 2012
 PLANS APPROVAL DATE

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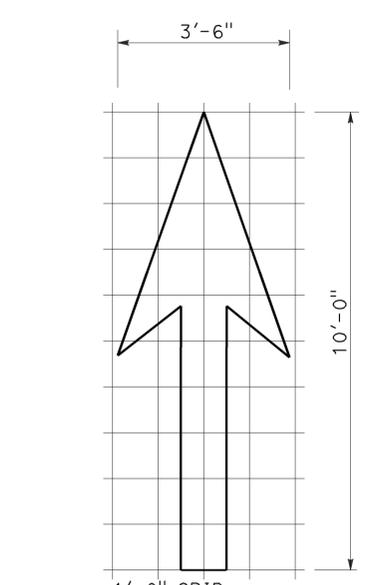
TO ACCOMPANY PLANS DATED 3-16-15



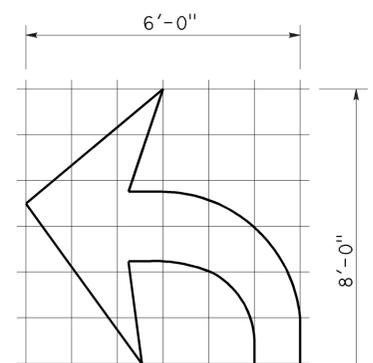
1'-0" GRID
A=25 ft²
TYPE I 18'-0" ARROW



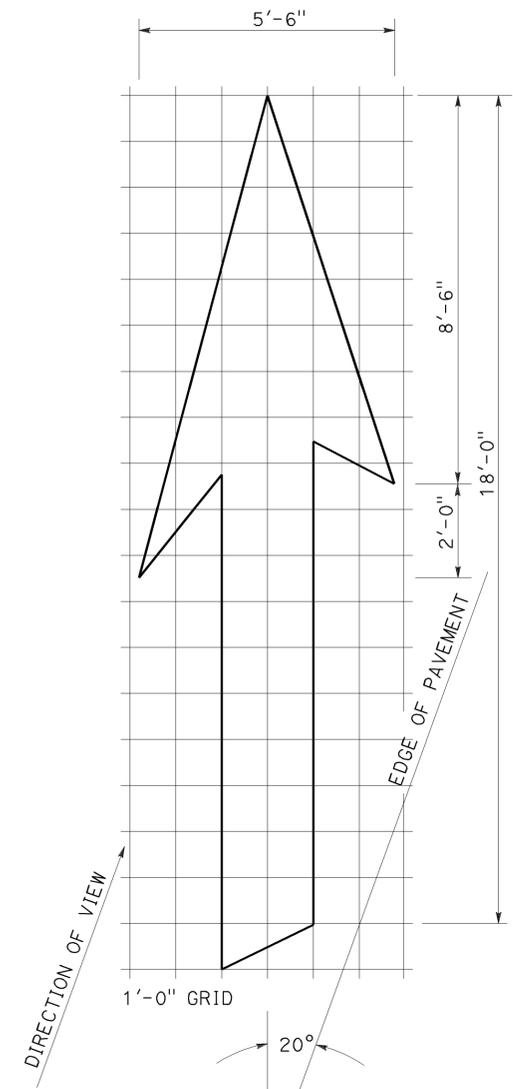
1'-0" GRID
A=31 ft²
TYPE I 24'-0" ARROW



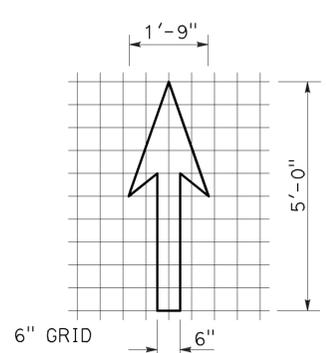
1'-0" GRID
A=14 ft²
TYPE I 10'-0" ARROW



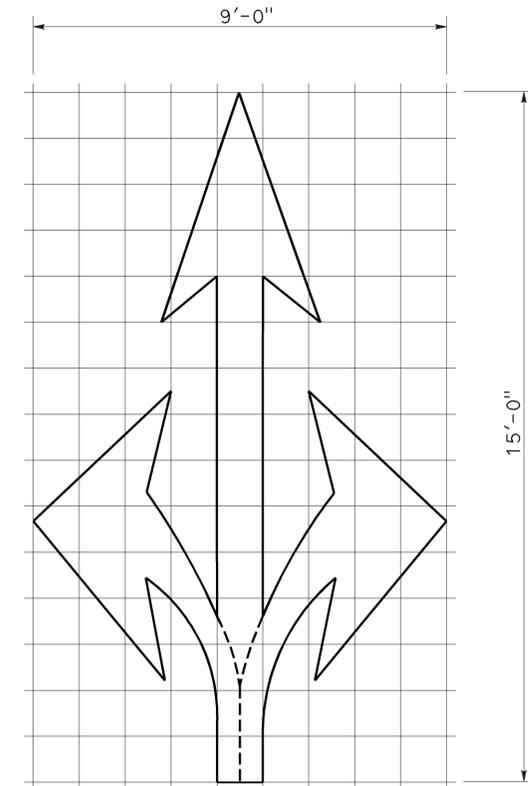
1'-0" GRID
A=15 ft²
TYPE IV (L) ARROW
(For Type IV (R) arrow,
use mirror image)



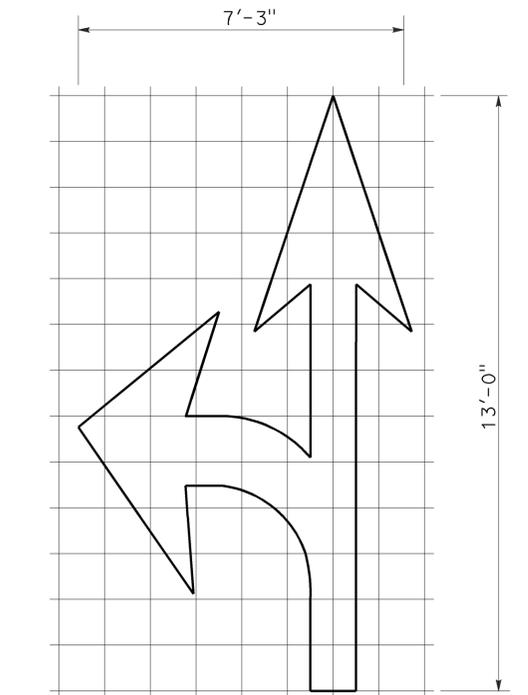
1'-0" GRID
A=42 ft²
TYPE VI ARROW
Right lane drop arrow
(For left lane,
use mirror image)



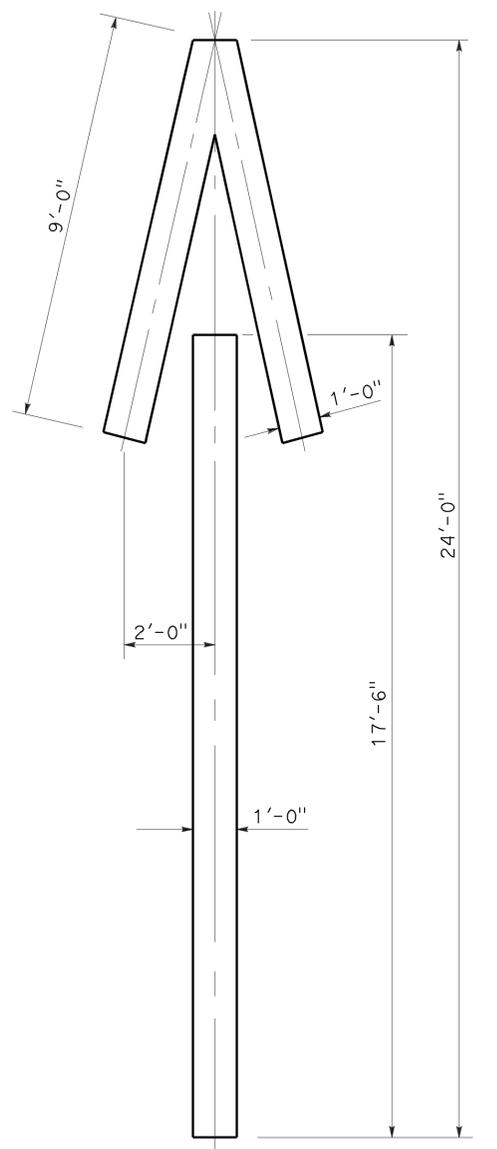
6" GRID
A=3.5 ft²
BIKE LANE ARROW



1'-0" GRID
A=36 ft²
TYPE VIII ARROW



1'-0" GRID
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.

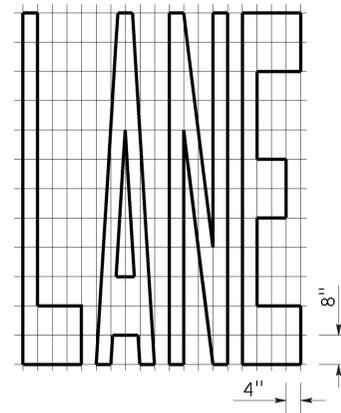
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

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

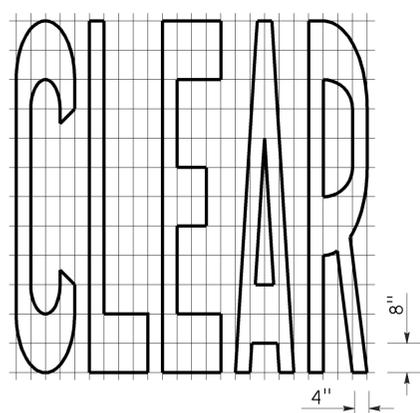
REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

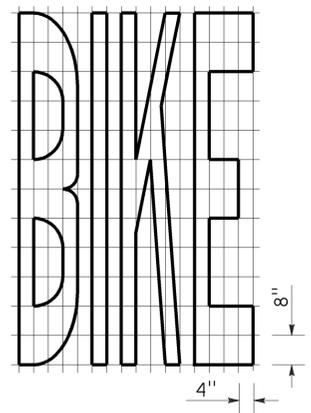
TO ACCOMPANY PLANS DATED 3-16-15



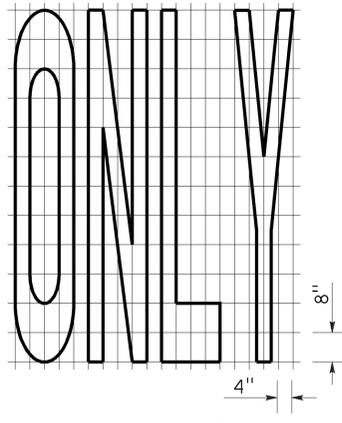
A=24 ft²



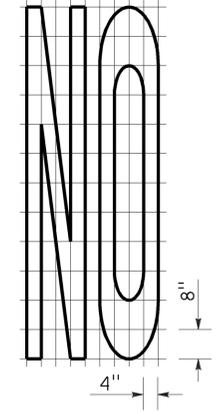
A=27 ft²



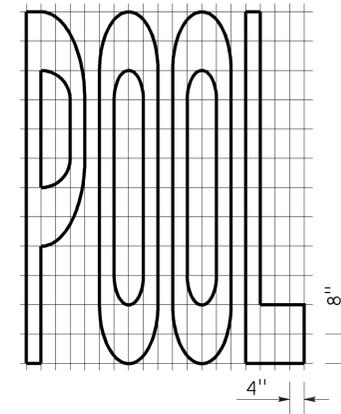
A=21 ft²



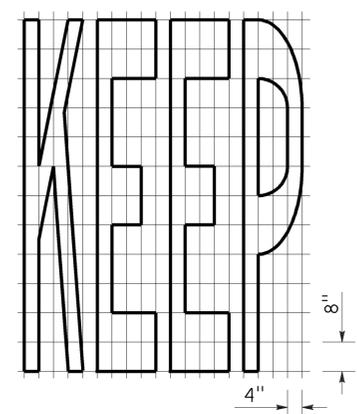
A=22 ft²



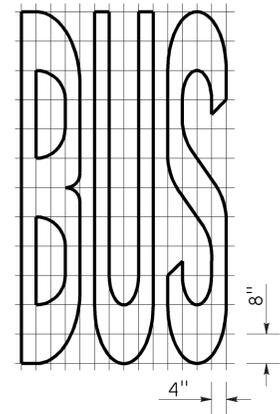
A=14 ft²



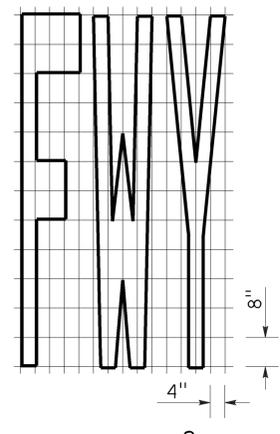
A=23 ft²



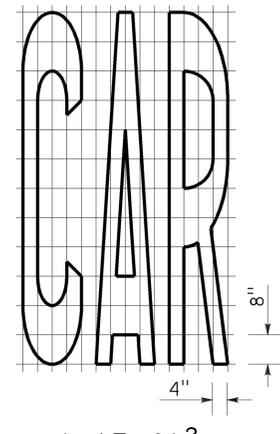
A=24 ft²



A=20 ft²

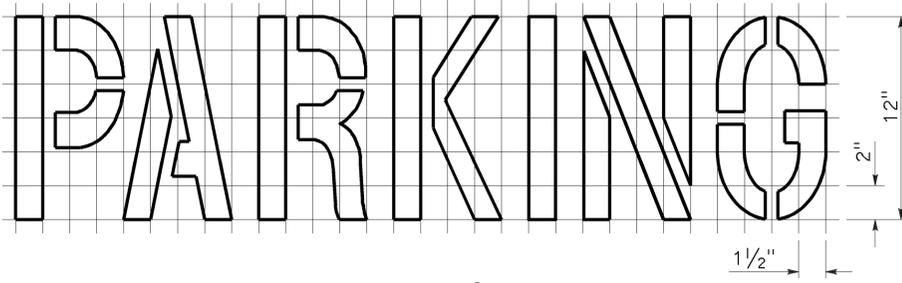
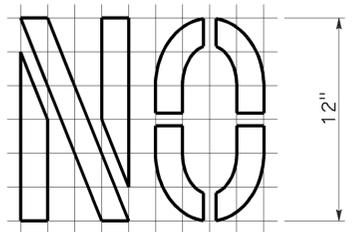


A=16 ft²

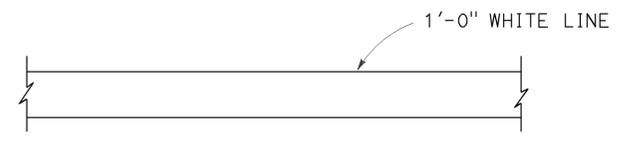


A=17 ft²

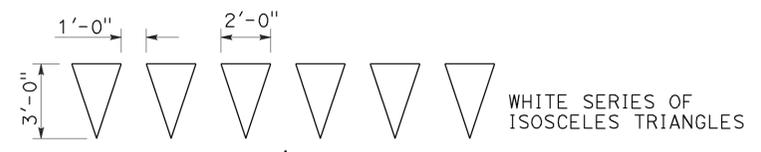
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

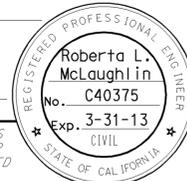
NOTES:

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.

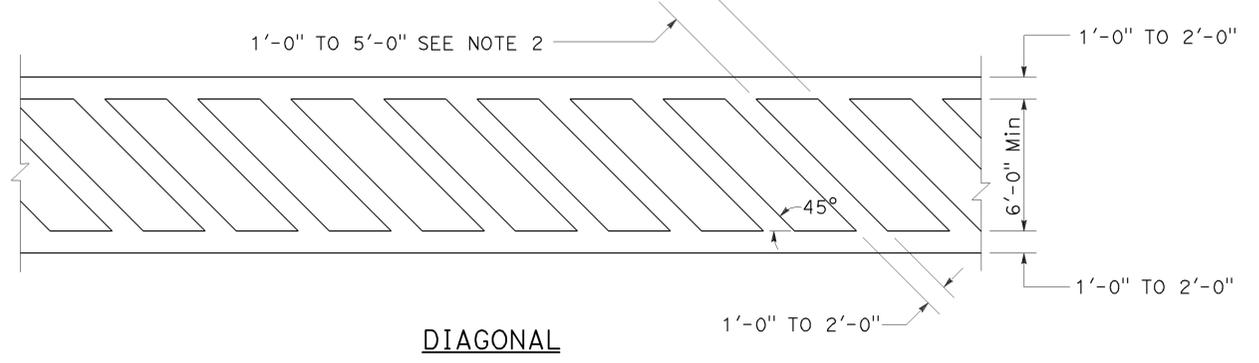
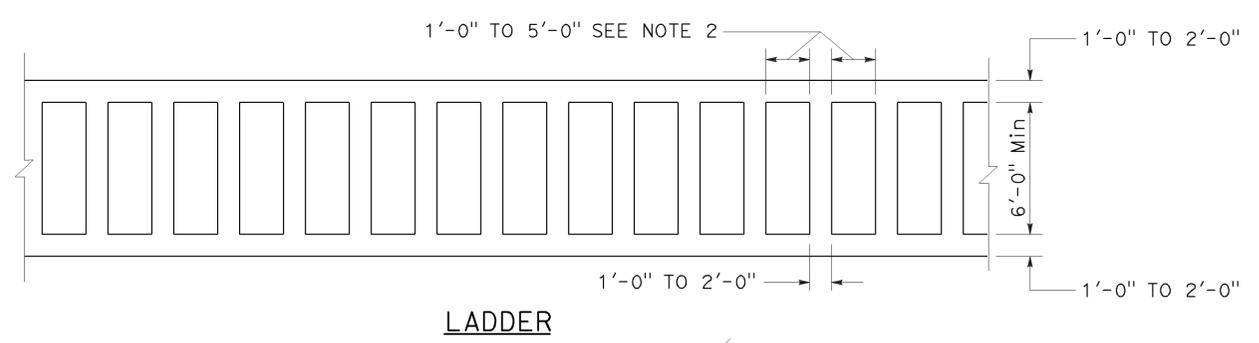
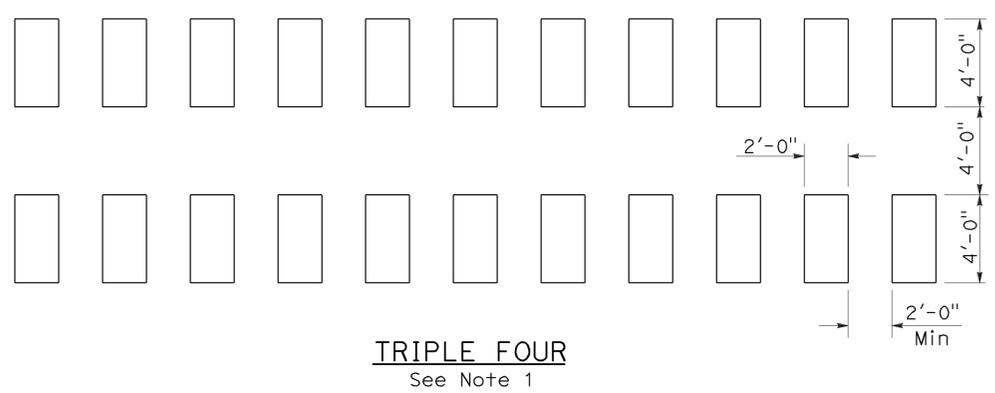
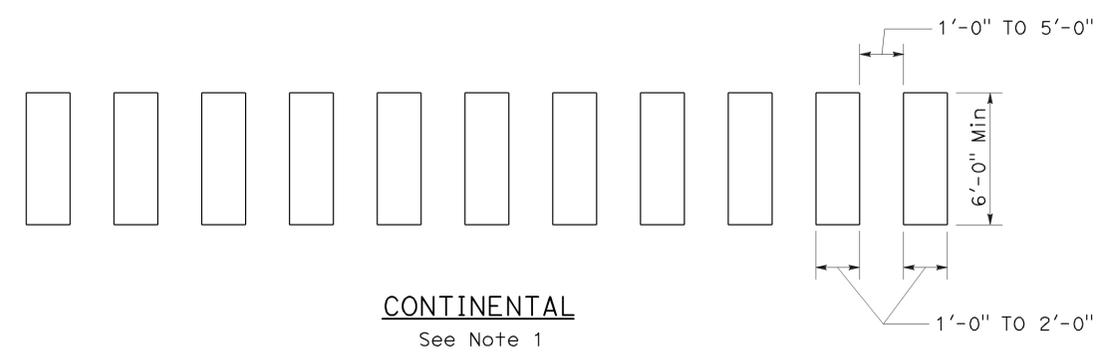
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES**
NO SCALE

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	49	80

 REGISTERED CIVIL ENGINEER		
July 20, 2012 PLANS APPROVAL DATE		
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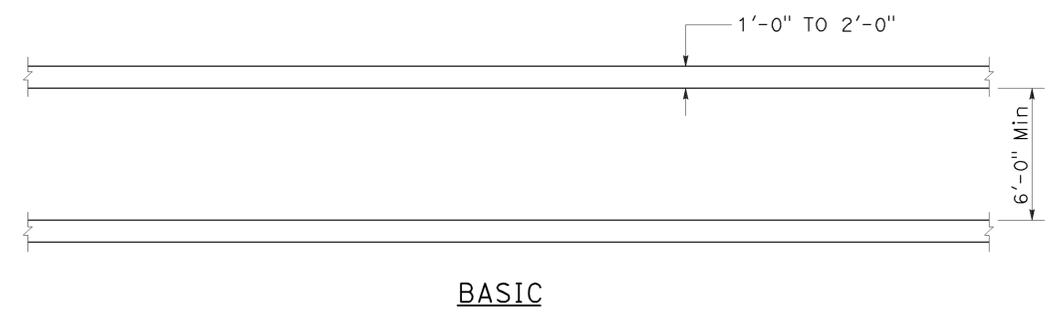
TO ACCOMPANY PLANS DATED 3-16-15



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.

2010 REVISED STANDARD PLAN RSP A24F

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	50	80

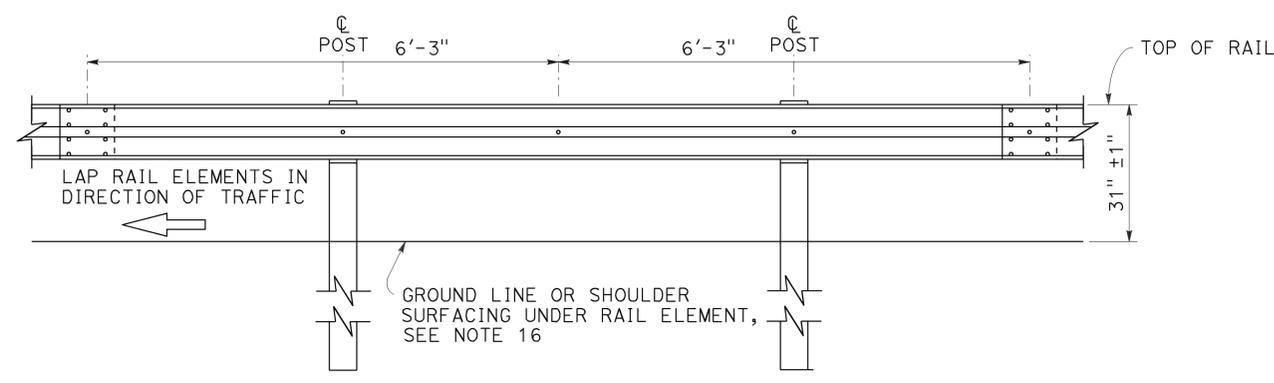
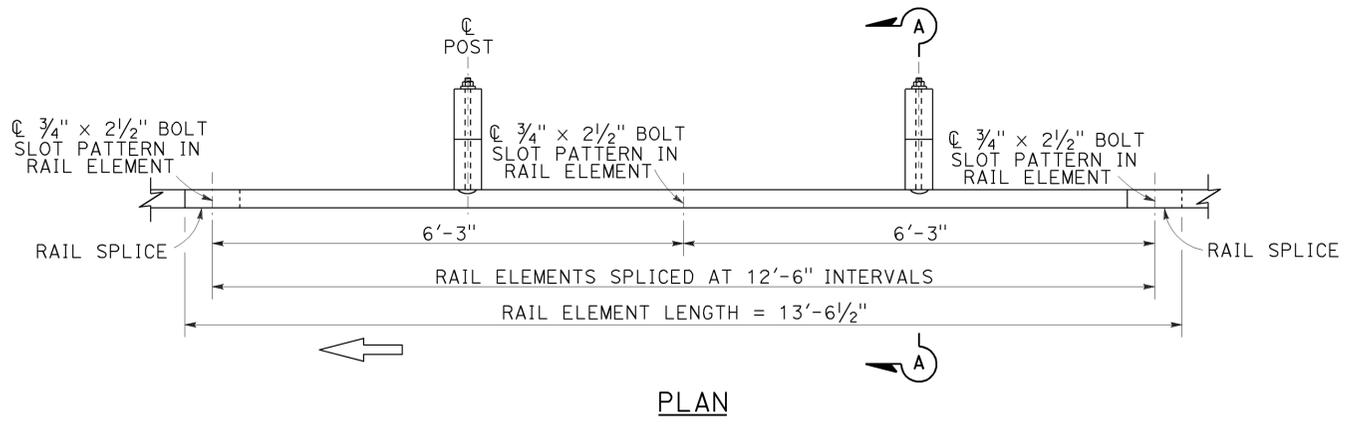
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
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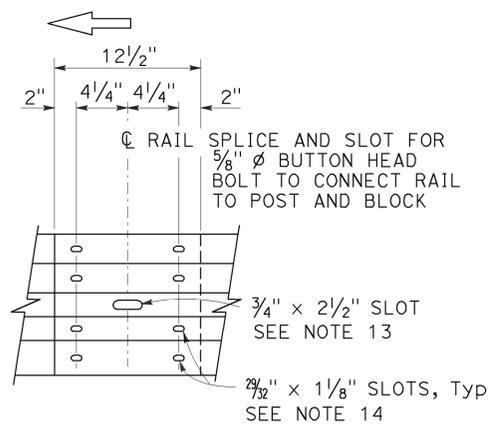
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 3-16-15



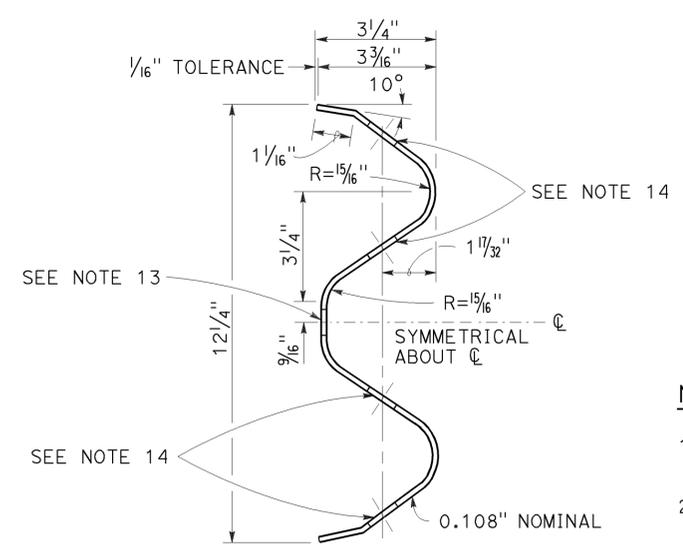
ELEVATION

MIDWEST GUARDRAIL SYSTEM WITH WOOD POST AND BLOCKS

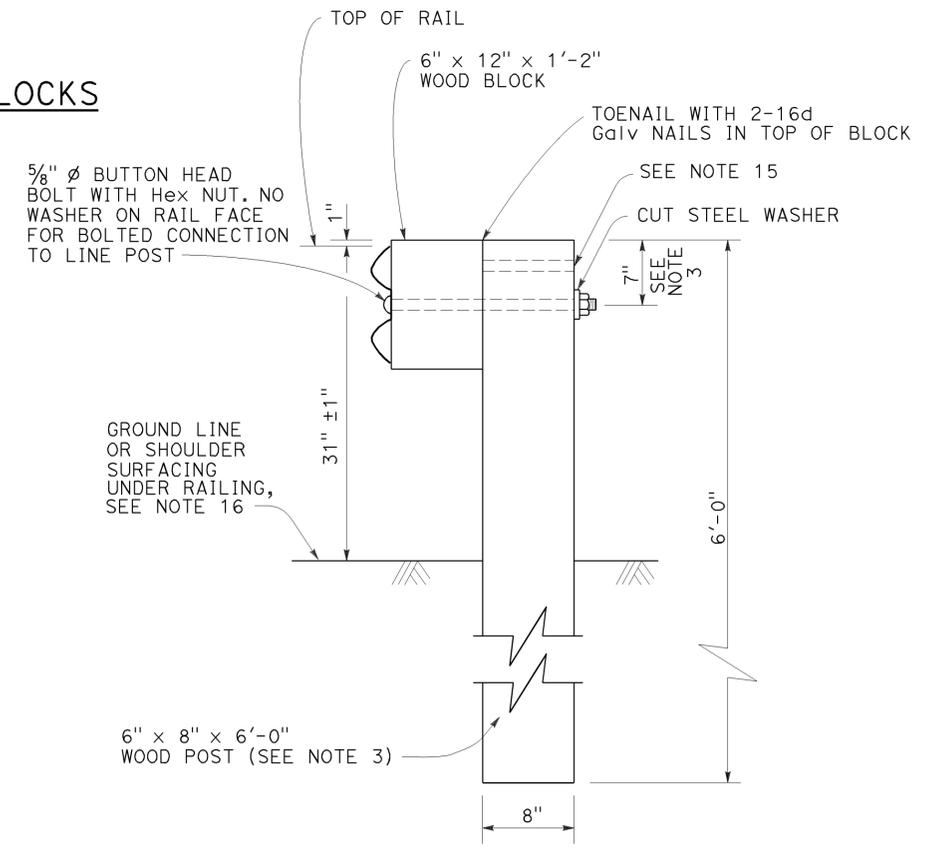


ELEVATION
RAIL ELEMENT SPLICE DETAIL

- Connect the over lapped end of the rail elements with $\frac{5}{8}$ " ϕ x $1\frac{3}{8}$ " button head oval shoulder splice bolts inserted into the $\frac{7}{32}$ " x $1\frac{1}{8}$ " slots and bolted together with $\frac{5}{8}$ " ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



SECTION THRU RAIL ELEMENT



SECTION A-A
TYPICAL WOOD LINE POST INSTALLATION

See Note 4

NOTES:

- For details of steel post installations, see Revised Standard Plan RSP A77L2.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of wood posts and wood blocks used to construct MGS, see Revised Standard Plan RSP A77N1.
- For additional installation details, see Revised Standard Plan RSP A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Revised Standard Plans RSP A77S1 and RSP A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railing, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For MGS connection details to abutments and walls, see Revised Standard Plan RSP A77U3.
- For typical MGS delineation and dike positioning details, see Revised Standard Plan RSP A77N4.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Additional hole in uppermost portion of line post is for potential future adjustments of railing height. See Revised Standard Plan RSP A77N1.
- Install posts in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(WOOD POST WITH WOOD BLOCK)

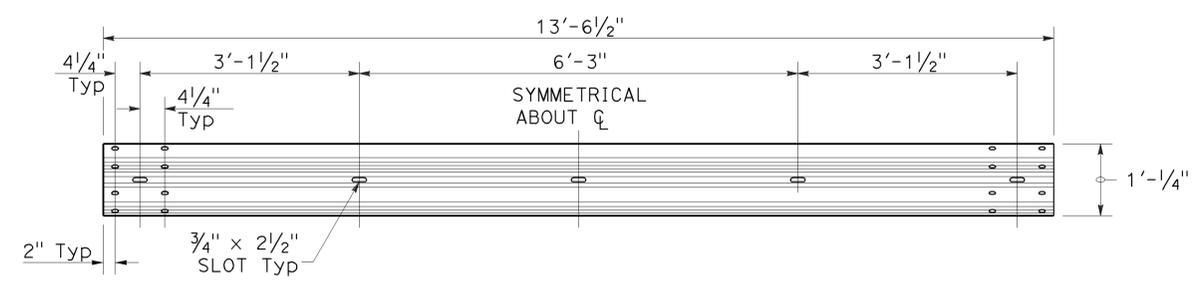
NO SCALE

RSP A77L1 DATED JULY 19, 2013 SUPPLEMENTS STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L1

2010 REVISED STANDARD PLAN RSP A77L1

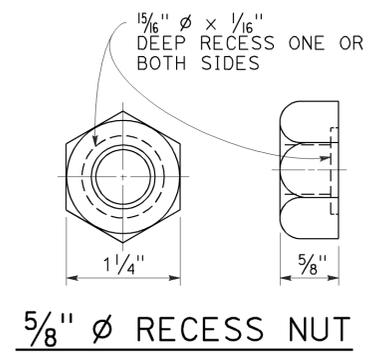
TO ACCOMPANY PLANS DATED 3-16-15



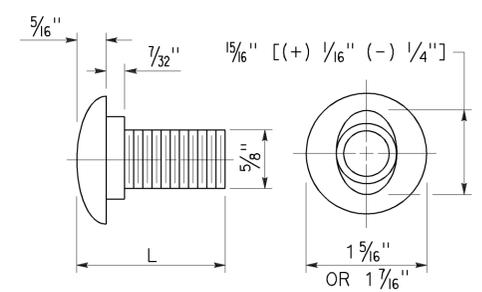
TYPICAL RAIL ELEMENT

NOTE:

1. Slotted holes for splice bolts to overlap ends of rail element.



5/8" ø RECESS NUT

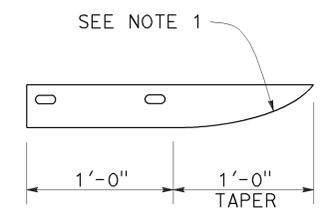


5/8" ø BUTTON HEAD BOLT

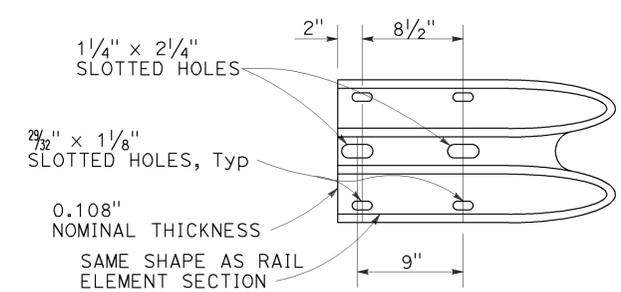
BUTTON HEAD BOLT

L	THREAD LENGTH
1 3/8"	FULL THREAD LENGTH
2"	FULL THREAD LENGTH
10"	4" Min THREAD LENGTH
18"	4" Min THREAD LENGTH
20"	4" Min THREAD LENGTH
22"	4" Min THREAD LENGTH
26"	4" Min THREAD LENGTH
36"	4" Min THREAD LENGTH
** 2 3/4"	2" Min THREAD LENGTH
** 19"	4" Min THREAD LENGTH

** For nested rail applications.



PLAN



ELEVATION
 END CAP
 (TYPE A)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
 STANDARD HARDWARE

NO SCALE

RSP A77M1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77M1

2010 REVISED STANDARD PLAN RSP A77M1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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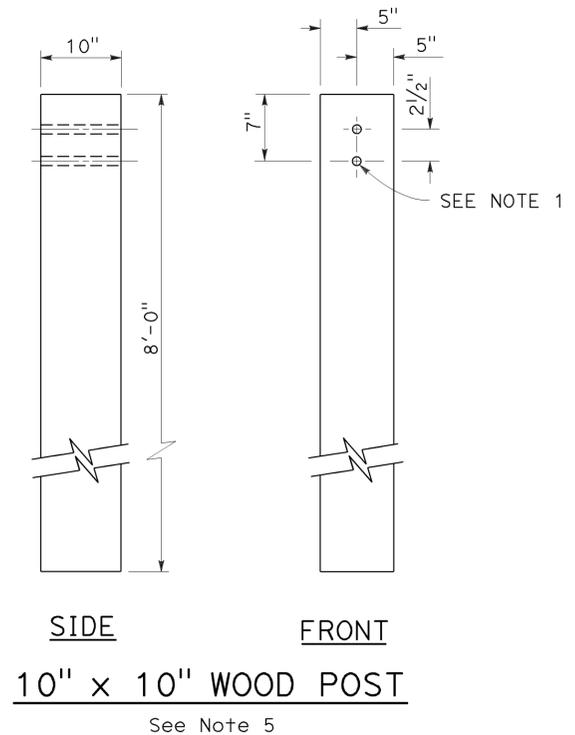
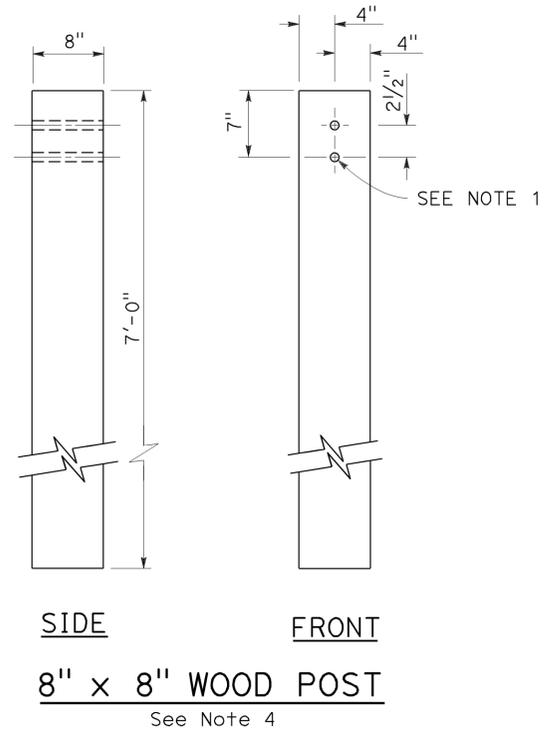
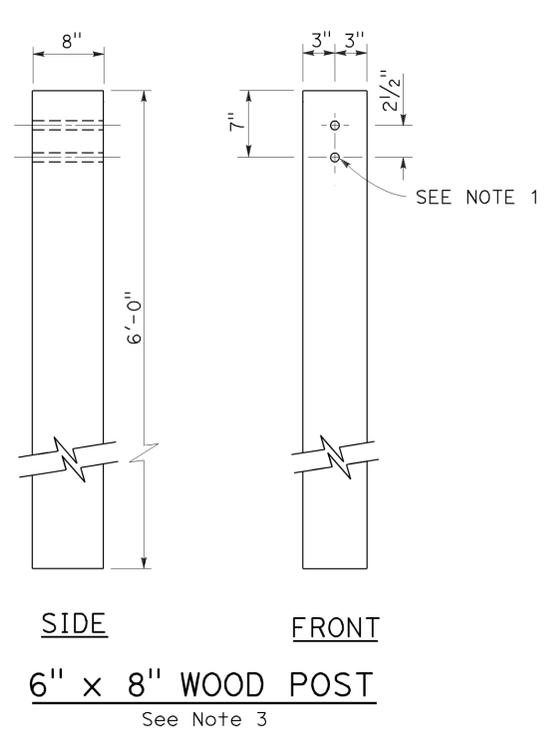
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
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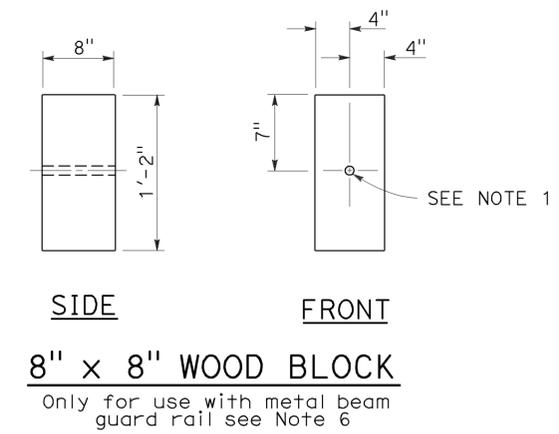
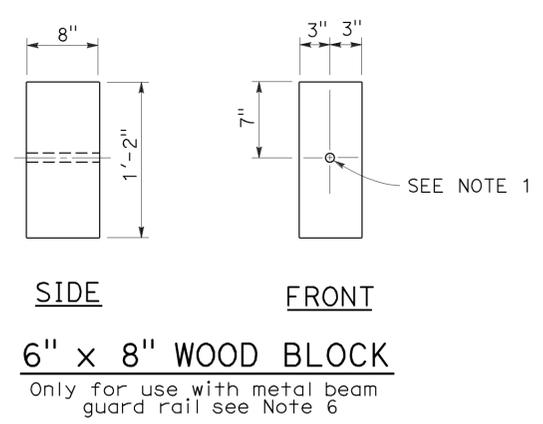
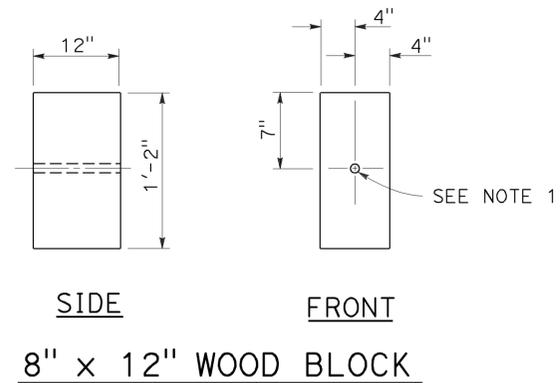
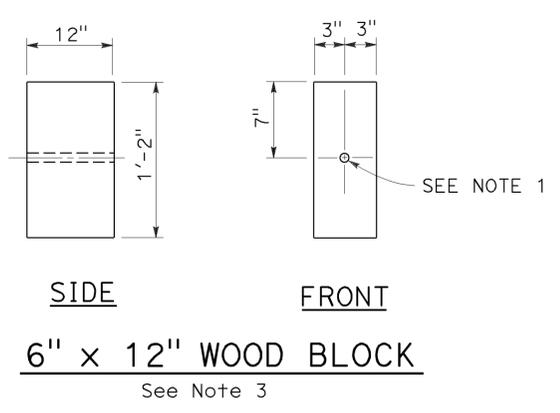
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STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 3-16-15



NOTES:

1. All holes in wood posts and blocks shall be $\frac{3}{4}$ " Dia \pm $\frac{1}{16}$ ".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" wood blocks.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
WOOD POST AND
WOOD BLOCK DETAILS**

NO SCALE

RSP A77N1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N1

2010 REVISED STANDARD PLAN RSP A77N1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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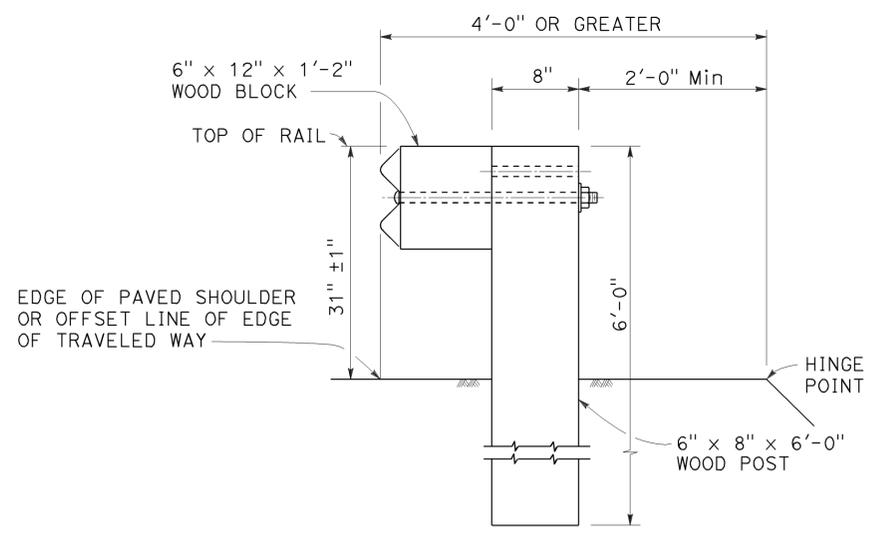
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

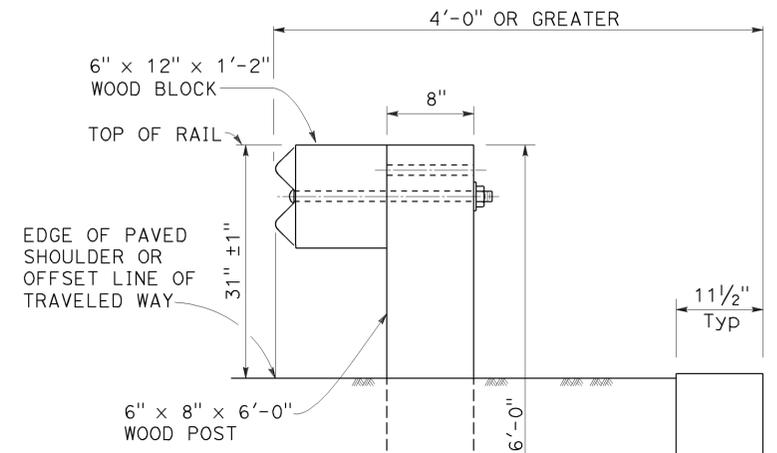
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STATE OF CALIFORNIA

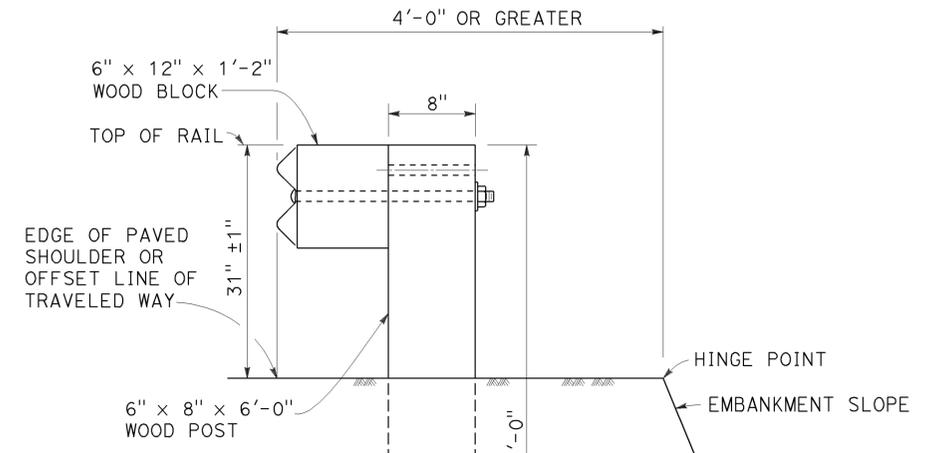
TO ACCOMPANY PLANS DATED 3-16-15



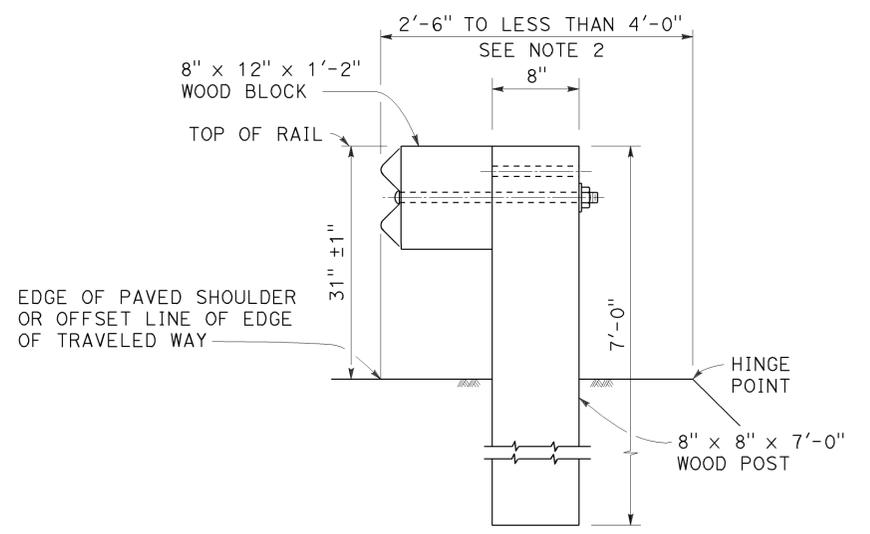
DETAIL A
TYPICAL ROADWAY
INSTALLATION
See Note 1



DETAIL C
INSTALLATION AT EARTH RETAINING WALLS



DETAIL D
INSTALLATION AT EARTH RETAINING WALLS



DETAIL B
NARROW ROADWAY
INSTALLATION
See Note 1

POST EMBEDMENT

NOTES:

1. These installation details also applicable to steel line post installations. For Detail A, C, and D, where steel line post installations are constructed, W6 x 8.5 or W6 x 9 steel post, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For Detail B, where steel line post installations are constructed, W6 x 15 steel post, 8'-0" in length, with 8" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For additional installation details, see Revised Standard Plan RSP A77L1 and RSP A77L2.
2. Where the distance between the face of the rail and the hinge point is less than 2'-6", see the Project Plans for special details.
3. For dike positioning with MGS installations, see Revised Standard Plan RSP A77N4.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
TYPICAL LINE POST
EMBEDMENT AND
HINGE POINT OFFSET DETAILS
NO SCALE

RSP A77N3 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77N3
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A77N3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	54	80

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REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

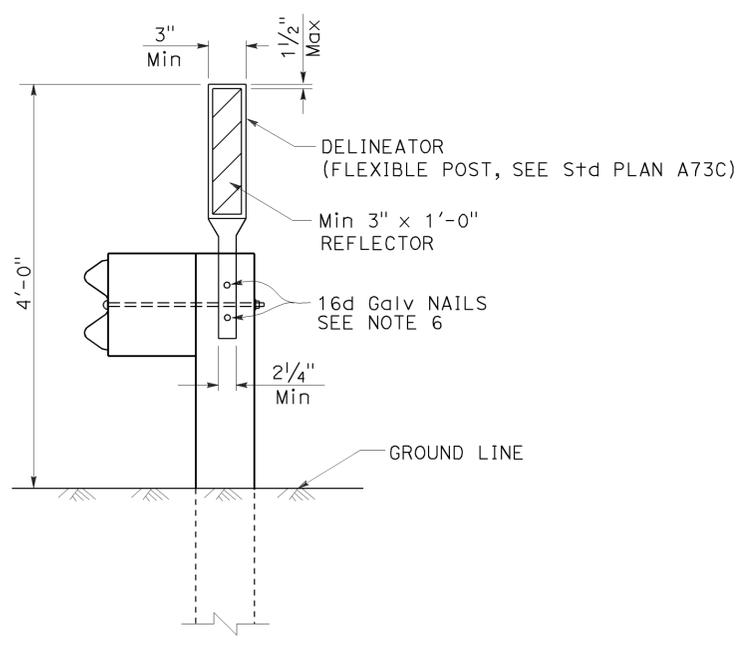
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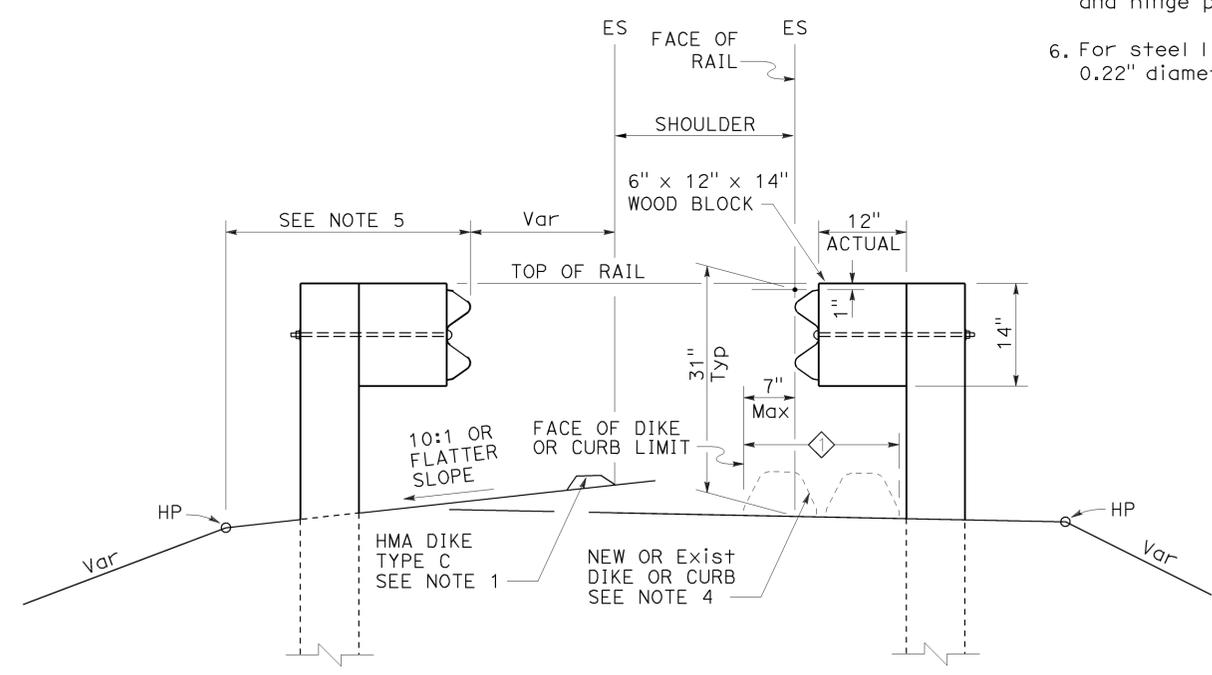
TO ACCOMPANY PLANS DATED 3-16-15

NOTES:

- When necessary to place dike more than 7" in front of face of MGS, only Type C dike may be used. For dike details, see Revised Standard Plan RSP A87B.
- For standard railing post embedment, see Revised Standard Plan RSP A77N3.
- MGS delineation to be used where shown on the Project Plans.
- When dike or curb is placed under MGS, the maximum height of the dike or curb shall be 6". Mountable dike should not be used. For dike and curb details, see Revised Standard Plans RSP A87A and RSP A87B.
- For details of typical distance between the face of rail and hinge point, see Revised Standard Plan RSP A77N3.
- For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.



MGS DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

◇ PERMISSIBLE DIKE OR CURB PLACEMENT AREA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL RAILING DELINEATION
AND DIKE POSITIONING DETAILS**
NO SCALE

RSP A77N4 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A77N4

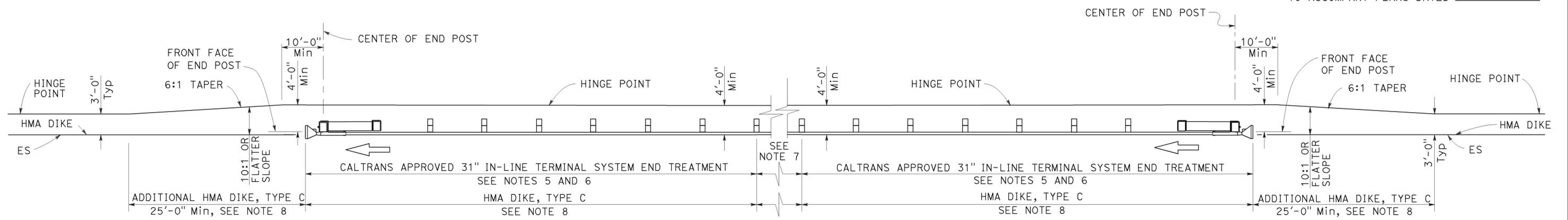
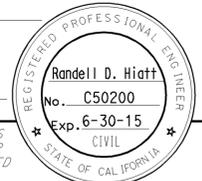
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	55	80

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REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

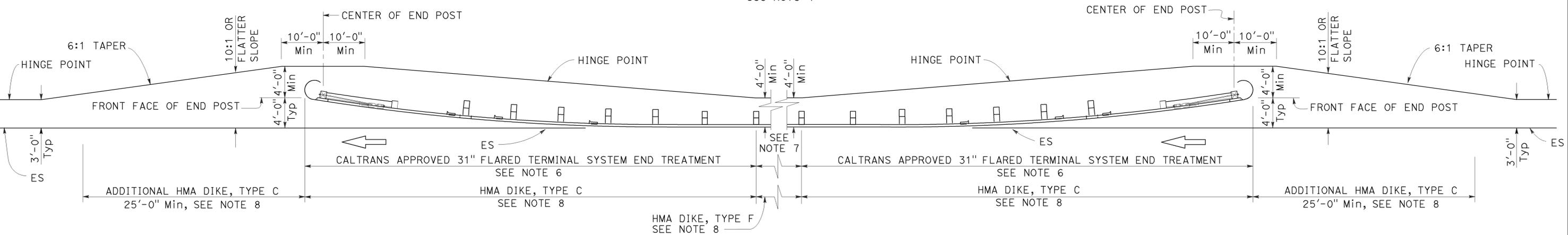
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TO ACCOMPANY PLANS DATED 3-16-15



TYPE 11D LAYOUT

(Embankment MGS installation with 31" in-line end treatment at each end of railing)
See Note 4



TYPE 11E LAYOUT

(Embankment MGS installation with 31" flared end treatment at each end of railing)
See Note 4

NOTES:

1. Line post, blocks and hardware to be used are shown on Revised Standard Plans RSP A77L1, RSP A77L2, RSP A77M1, RSP A77N1 and RSP A77N2.
2. MGS post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 12" x 1'-2" wood blocks. W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 12" x 1'-2" wood blocks where applicable and when specified.
4. Layout Types 11D through 11L, shown on the A77P Series of Standard Plans, are typically used where MGS is recommended to shield embankment slopes and a crashworthy 31" end treatment is required for both directions of traffic.
5. 31" in-line terminal system end treatments are used where site conditions will not accommodate a flared end treatment.
6. The type of 31" terminal system end treatment to be used will be shown on the Project Plans.
7. Dependent on site conditions (embankment height and side slope), construction of additional MGS (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
8. Where placement of dike is required with MGS installations, see Revised Standard Plan RSP A77N4 for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL LAYOUTS FOR
EMBANKMENTS**

NO SCALE

RSP A77P2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77P2

2010 REVISED STANDARD PLAN RSP A77P2

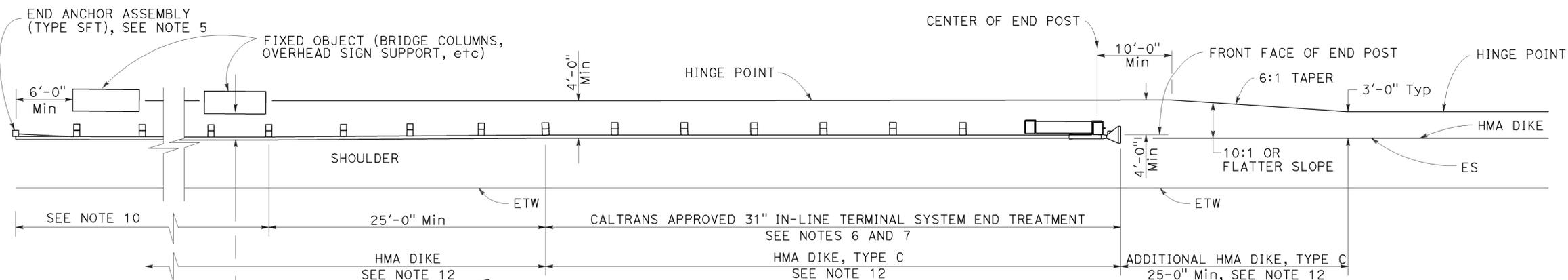
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	56	80

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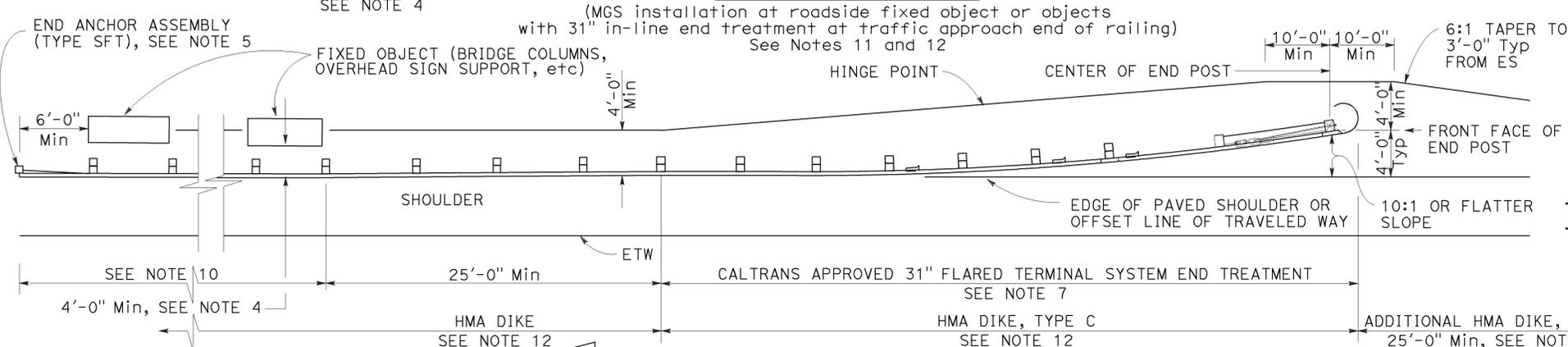
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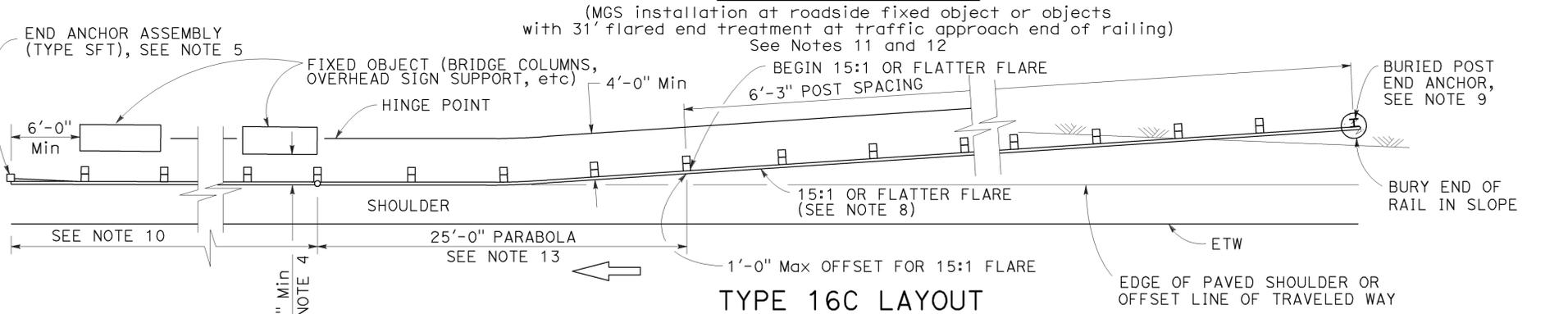
NO. C50200
Exp. 6-30-15
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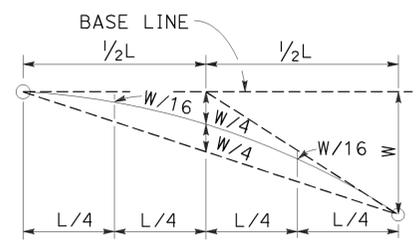
TYPE 16A LAYOUT



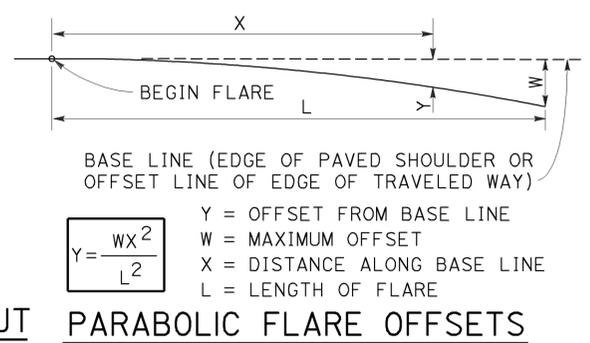
TYPE 16B LAYOUT



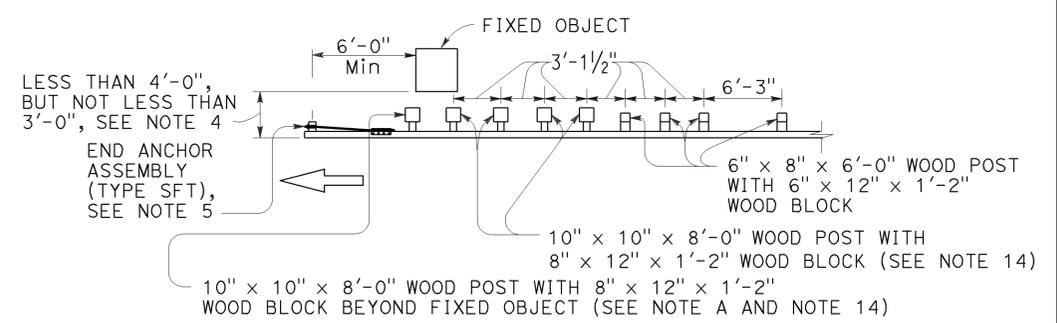
TYPE 16C LAYOUT



TYPICAL PARABOLIC LAYOUT



PARABOLIC FLARE OFFSETS



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 12" x 1'-2" wood blocks at 3'-1/2" center to center spacing are to be used between fixed objects.

STRENGTHENED MIDWEST GUARDRAIL SYSTEM SECTIONS FOR FIXED OBJECT

NOTES:

- Line post, blocks and hardware to be used are shown on Revised Standard Plans RSP A77L1, RSP A77L2, RSP A77M1, RSP A77N1 and RSP A77N2.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 12" x 1'-2" wood blocks. W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 12" x 1'-2" wood blocks where applicable and when specified.
- A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind MGS sections with post spacing of 6'-3". Construct MGS as shown in the detail "Strengthened Midwest Guardrail System Sections for Fixed Object" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 3'-0". Where the clearance is less than 3'-0", a concrete wall or barrier should be constructed to shield the fixed object(s).
- For End Anchor Assembly (Type SFT) details, see Revised Standard Plan RSP A77S1.
- 31" in-line terminal system end treatments are used where site conditions will not accommodate a 31" flared end treatment.
- The type of 31" terminal system to be used will be shown on the Project Plans.
- The 15:1 or flatter flare used with Type 16C Layout is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of MGS within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the Buried Post End Anchor used with Type 16C Layout, see Revised Standard Plan RSP A77T2.
- As site conditions dictate, construct additional MGS to shield fixed object(s). Additional MGS length equal to multiples of 12'-6". Post spacing at 6'-3" except as specified in Note 4.
- Layout Types 16A, 16B or 16C are typically used where MGS is recommended to shield roadside fixed object(s) and a crashworthy 31" end treatment is required for only one direction of traffic.
- Where placement of dike is required with MGS, see Revised Standard Plan RSP A77N4 for dike positioning details.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77P1.
- W6 x 15 steel post, 8'-0" in length, with 8" x 12" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 12" x 1'-2" wood block shown in the detail "Strengthened Midwest Guardrail System Sections for Fixed Object".

Use strengthened MGS sections with Types 16A, 16B or 16C layouts where minimum clearance between the face of the railing and fixed object(s) is less than 4'-0", but not less than 3'-0". See Note 4

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**MIDWEST GUARDRAIL SYSTEM
TYPICAL LAYOUTS FOR
ROADSIDE FIXED OBJECTS**

NO SCALE

RSP A77R3 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77R3

2010 REVISED STANDARD PLAN RSP A77R3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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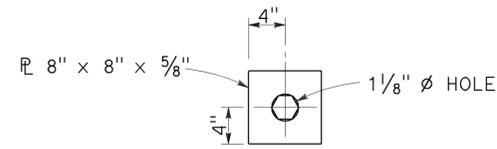
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

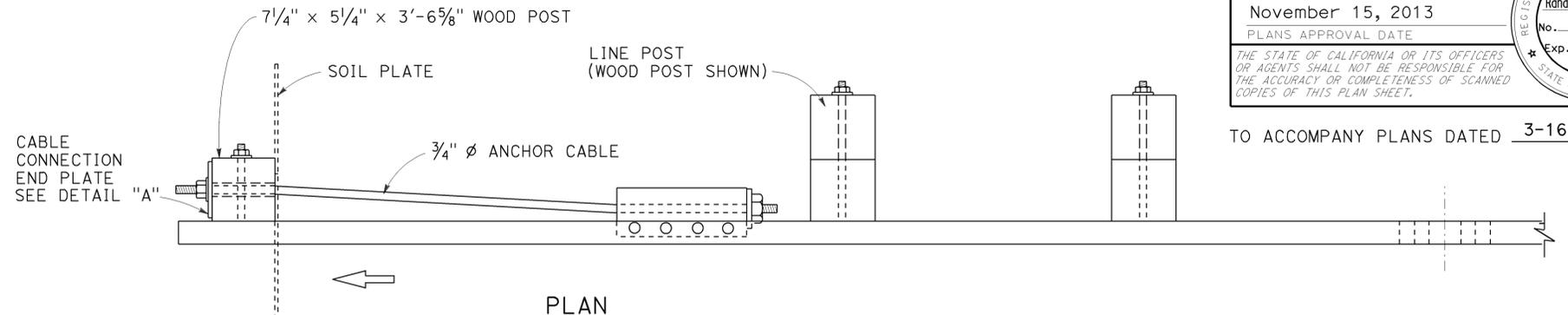
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TO ACCOMPANY PLANS DATED 3-16-15

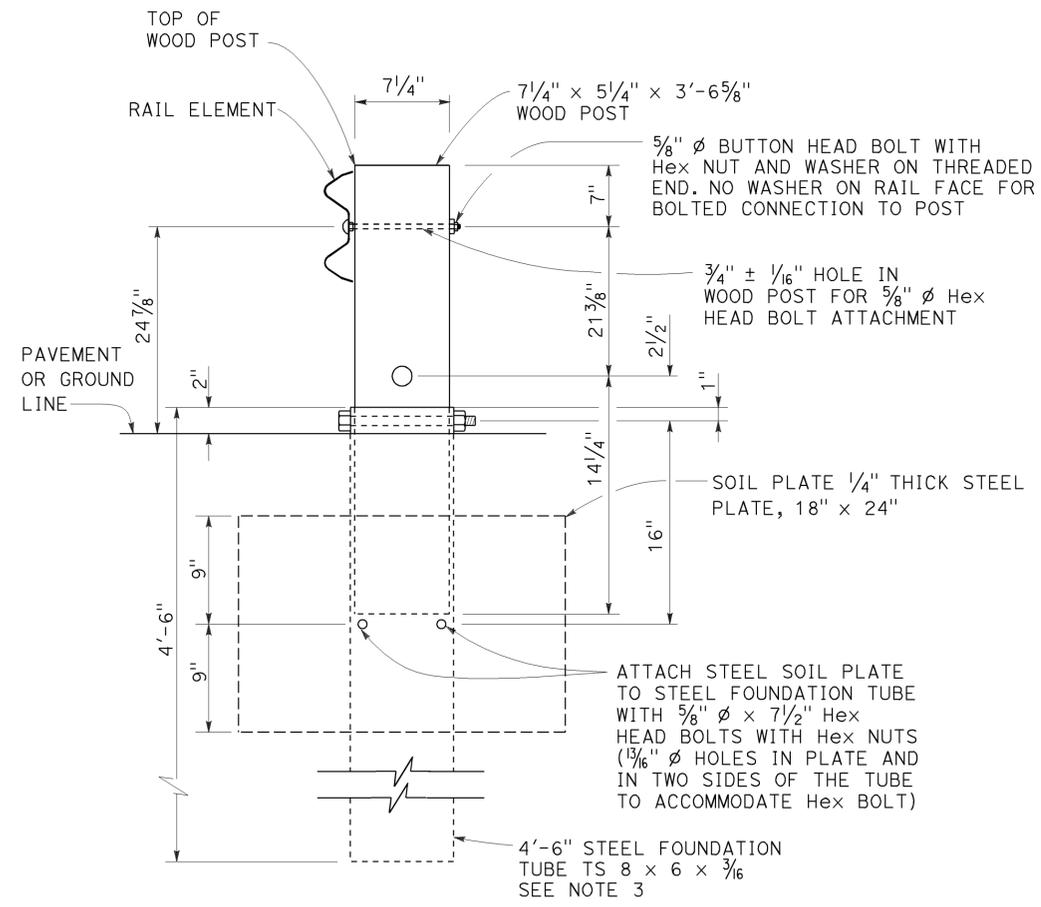
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA



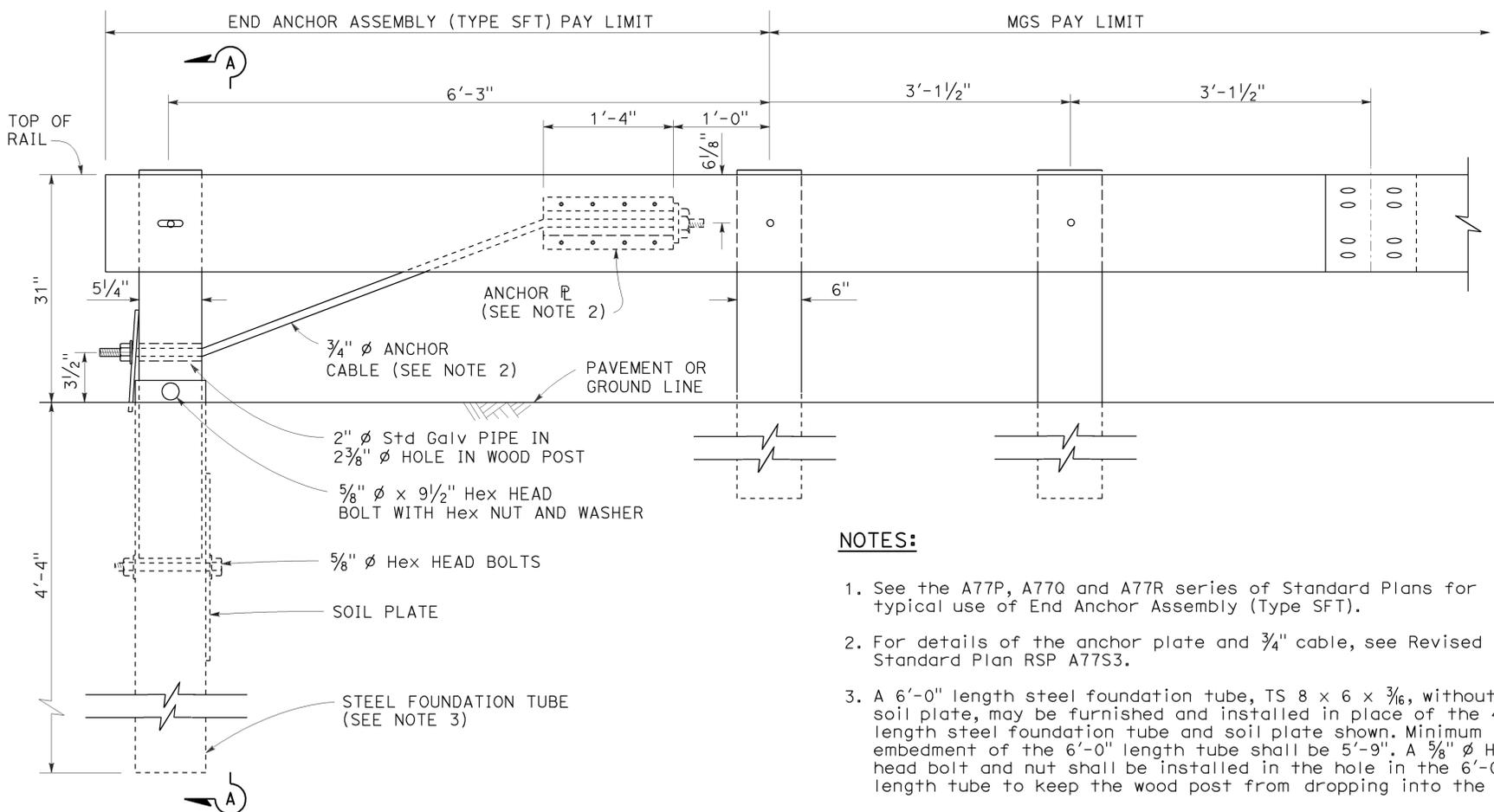
DETAIL "A"
CABLE CONNECTION
END PLATE



PLAN



SECTION A-A



ELEVATION

END ANCHOR
ASSEMBLY (TYPE SFT)
See Note 1

NOTES:

1. See the A77P, A77Q and A77R series of Standard Plans for typical use of End Anchor Assembly (Type SFT).
2. For details of the anchor plate and 3/4" cable, see Revised Standard Plan RSP A77S3.
3. A 6'-0" length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" diameter hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.
4. Install line post, steel foundation tube and soil plate in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
MIDWEST GUARDRAIL SYSTEM
END ANCHOR ASSEMBLY
(TYPE SFT)

NO SCALE

RSP A77S1 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77S1 DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77S1

2010 REVISED STANDARD PLAN RSP A77S1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	58	80

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

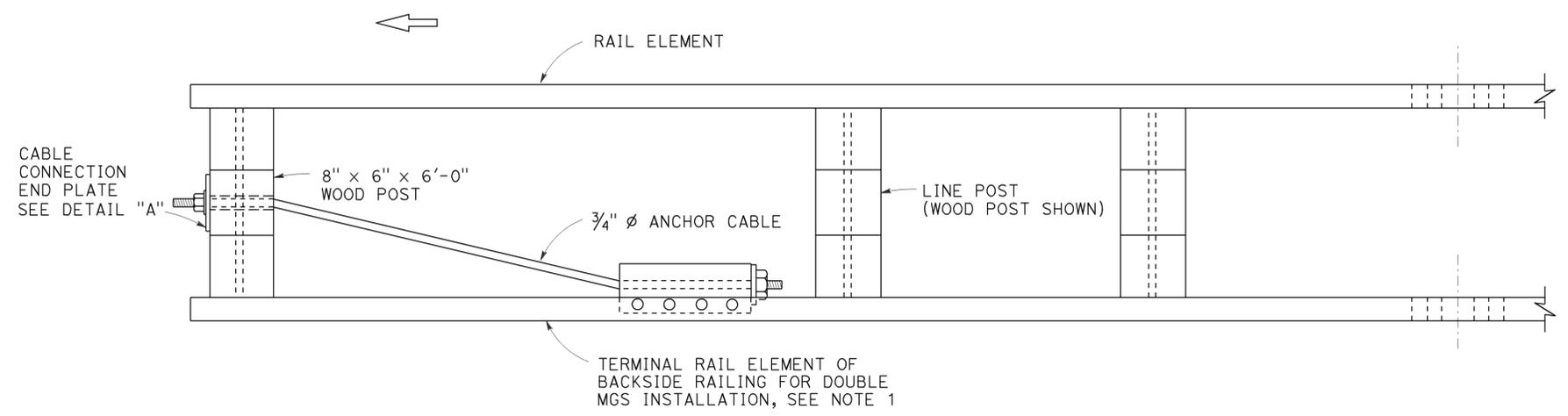
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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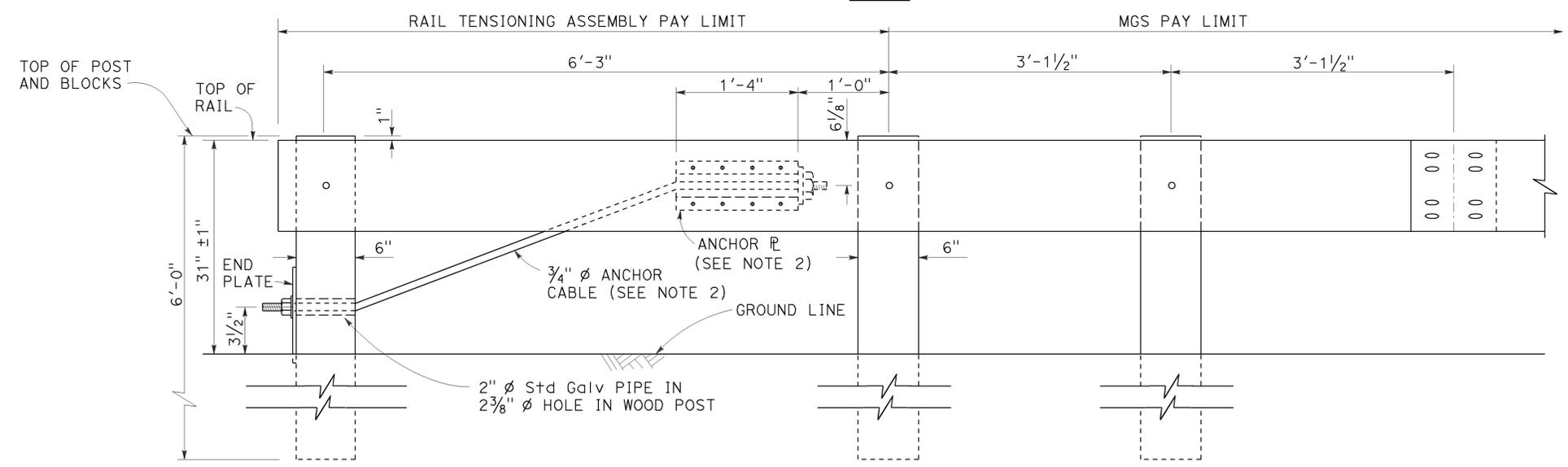
TO ACCOMPANY PLANS DATED 3-16-15

NOTES:

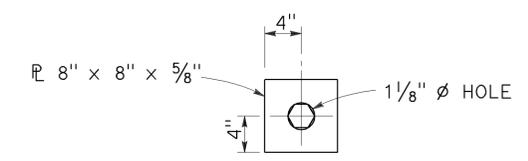
1. See Revised Standard Plans RSP A77Q3 and RSP A77R1 for typical use of rail tensioning assembly.
2. For details of the anchor plate and 3/4" cable, see Revised Standard Plan RSP A77S3.



PLAN



ELEVATION
RAIL TENSIONING
ASSEMBLY
See Note 1



DETAIL "A"
CABLE CONNECTION
END PLATE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
RAIL TENSIONING ASSEMBLY

NO SCALE

RSP A77S2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77S2

2010 REVISED STANDARD PLAN RSP A77S2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	59	80

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

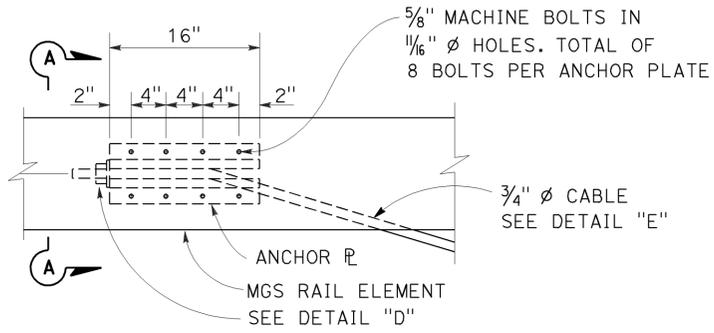
November 15, 2013
PLANS APPROVAL DATE

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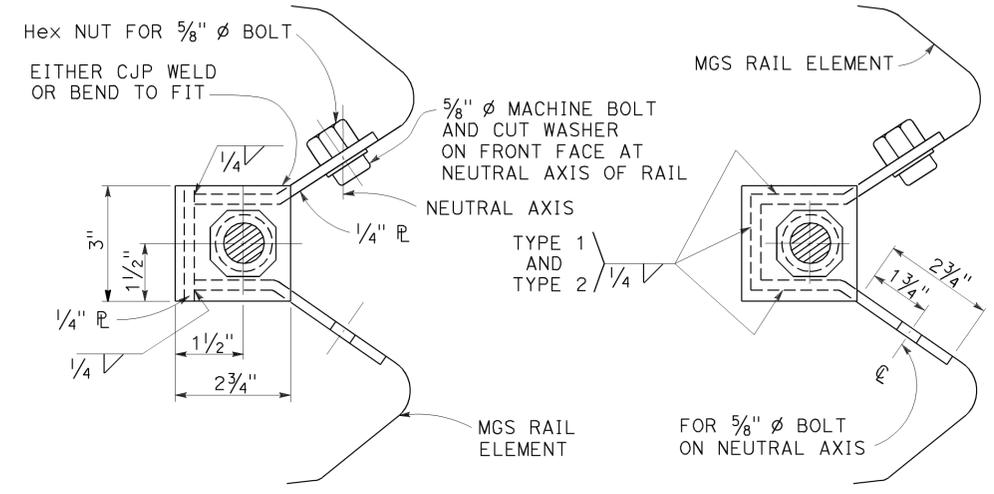
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 3-16-15

NOTE:
See Revised Standard Plans RSP A77S1, RSP A77S2 and RSP A77T1 for typical use of anchor cable and anchor plate.

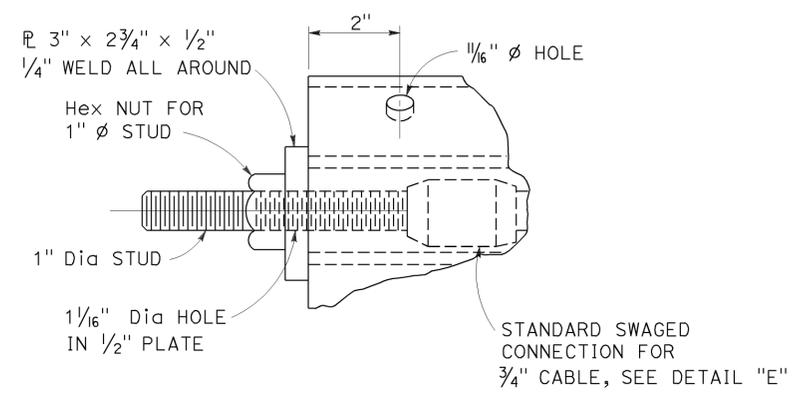


ANCHOR PLATE DETAIL
(MGS shown, TBB similar)

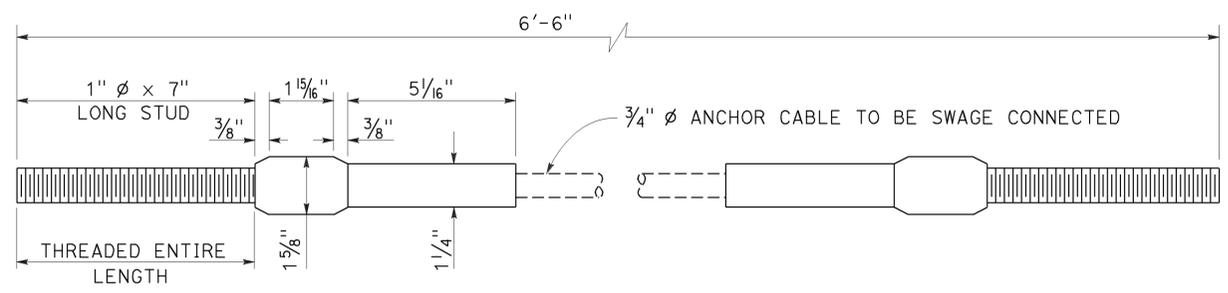


NOTE:
Dimensioning applies to both types.

SECTION A-A (ALTERNATIVE TYPE 1) **SECTION A-A (ALTERNATIVE TYPE 2)**



DETAIL "D"



ANCHOR CABLE WITH SWAGED FITTING AND STUD
DETAIL "E"

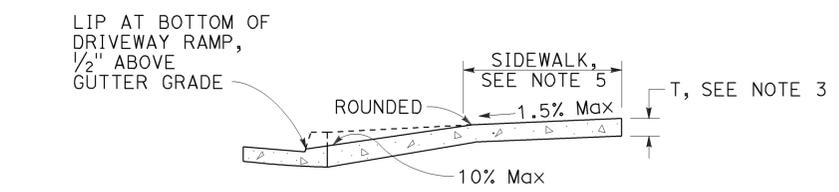
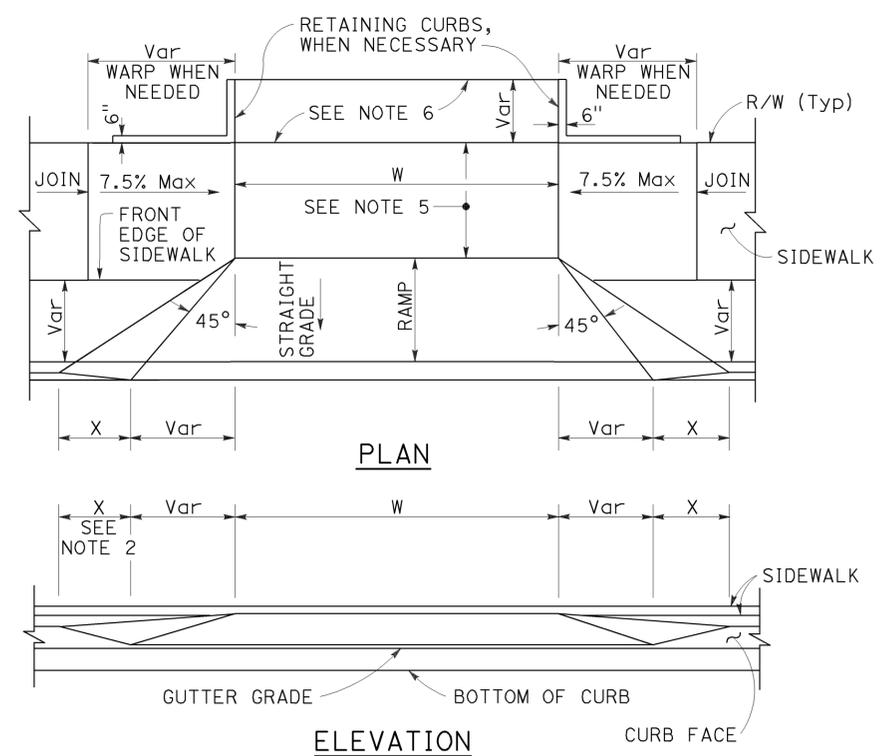
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL RAILING
ANCHOR CABLE AND
ANCHOR PLATE DETAILS**

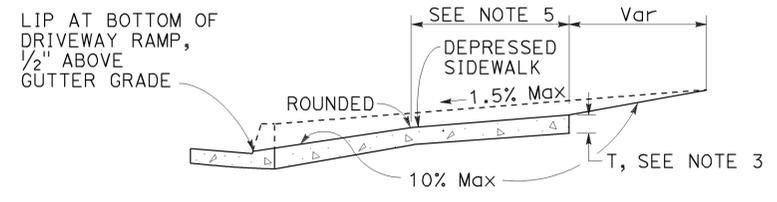
NO SCALE
RSP A77S3 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77S3
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A77S3

TO ACCOMPANY PLANS DATED 3-16-15



CASE A
Typical driveway, sidewalk not depressed



CASE B
Driveway with depressed sidewalk

SECTIONS

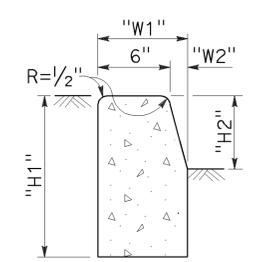
TABLE A

CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"

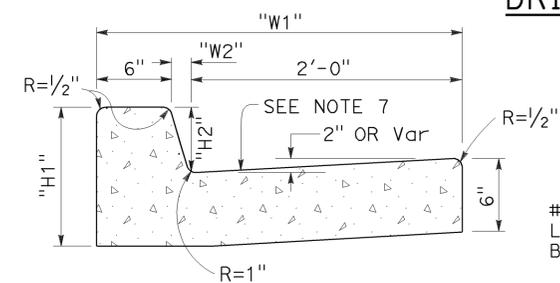
CURB QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

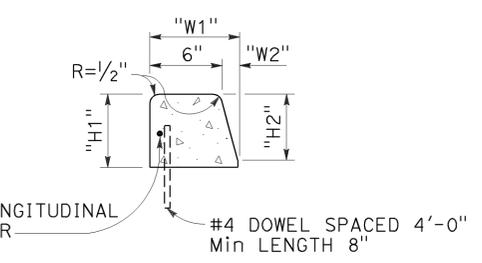
DRIVEWAYS



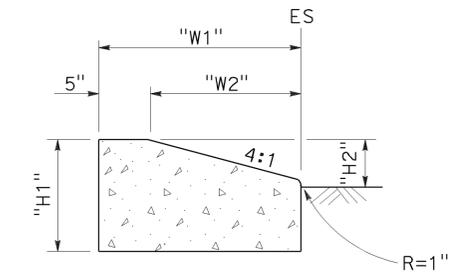
TYPE A1 CURBS
See Table A



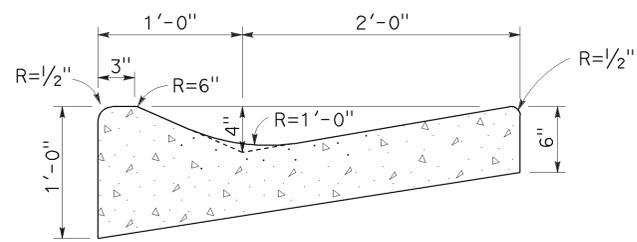
TYPE A2 CURBS
See Table A



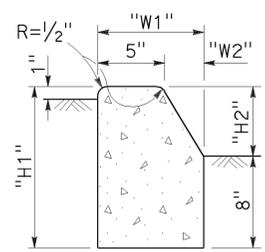
TYPE A3 CURBS
Superimposed on existing pavement
See Table A



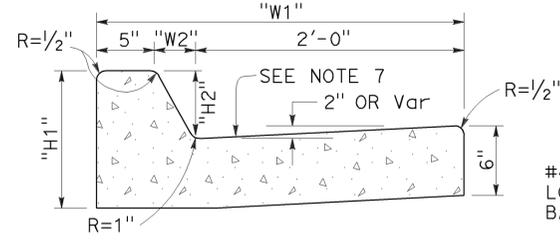
TYPE D CURBS
See Table A



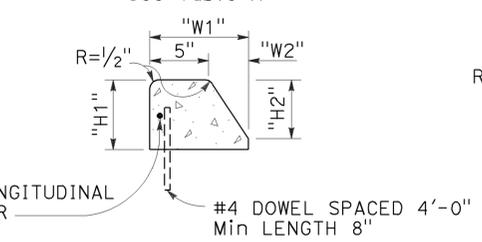
TYPE E CURB



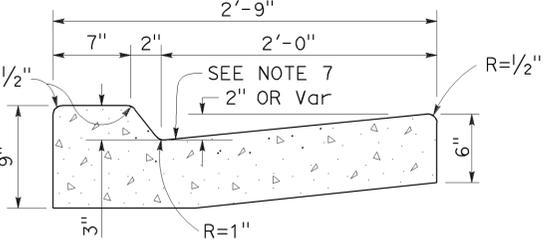
TYPE B1 CURBS
See Table A



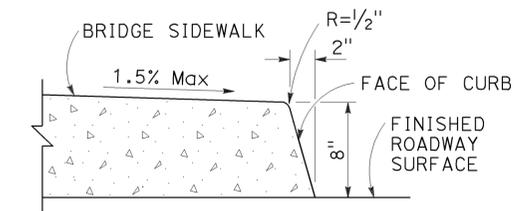
TYPE B2 CURBS
See Table A



TYPE B3 CURBS
Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB
On Bridges

CURBS

- NOTES:**
- Case A driveway section typically applies.
 - $\chi=3'-0"$ except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
 - Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
 - Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
 - Minimum width of clear passageway for sidewalk shall be 4'-2".
 - Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
 - Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

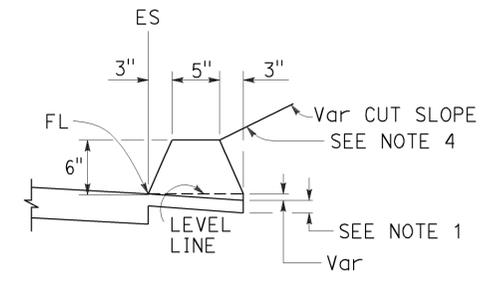
NO SCALE

RSP A87A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87A
DATED MAY 20, 2011 - PAGE 119 OF THE STANDARD PLANS BOOK DATED 2010.

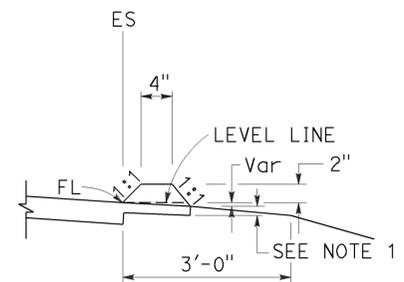
REVISED STANDARD PLAN RSP A87A

2010 REVISED STANDARD PLAN RSP A87A

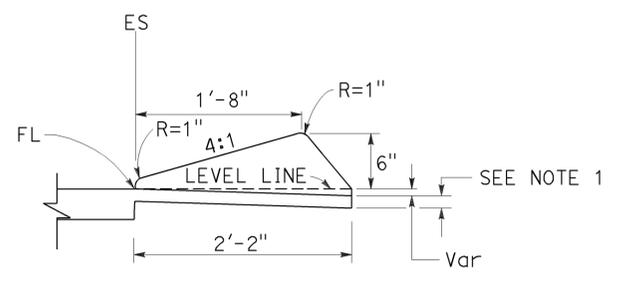
TO ACCOMPANY PLANS DATED 3-16-15



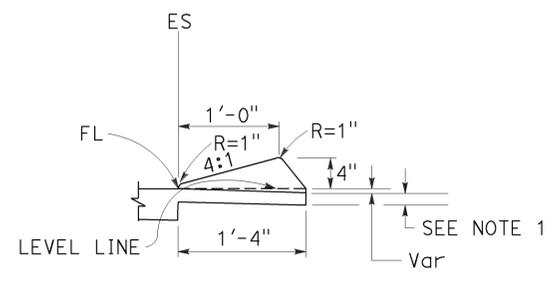
TYPE A
See Note 3



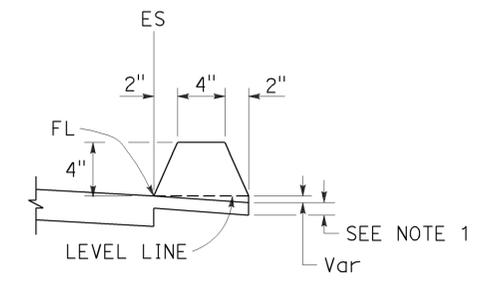
TYPE C



TYPE D

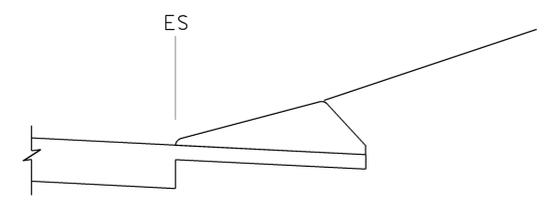


TYPE E

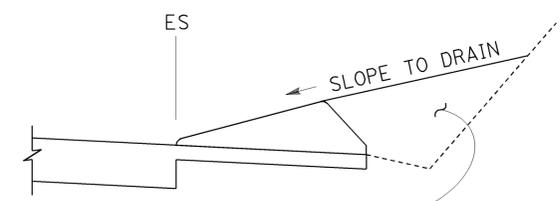


TYPE F
See Note 5

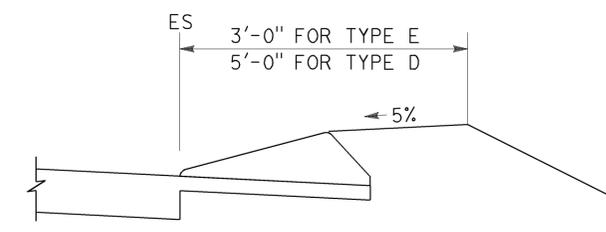
DIKES



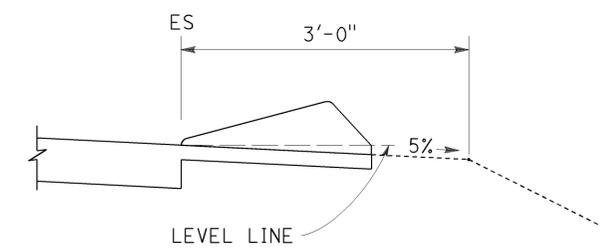
CASE C-1
Cut Slope



CASE C-2
Cut Slope



CASE F



CASE R
See Note 2

TYPE D AND E BACKFILL DETAILS

NOTES:

- 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.
- Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
- Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
- Fill and compact with excavated material to top of dike.
- 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

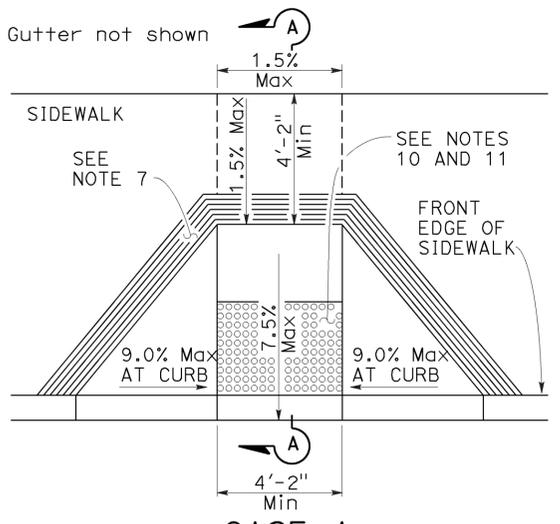
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	62	80

H. David Cordova
REGISTERED CIVIL ENGINEER

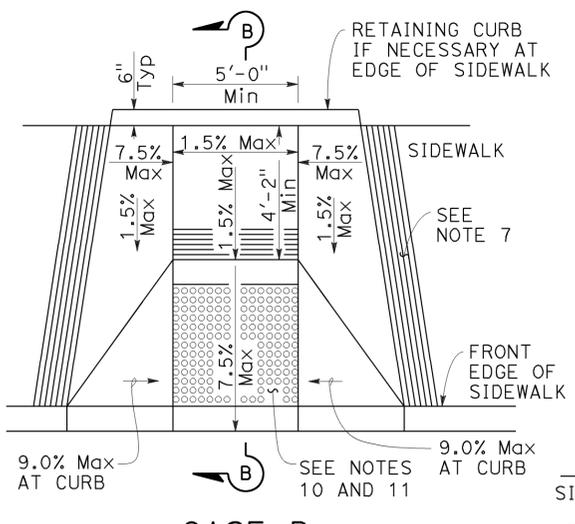
March 21, 2014
PLANS APPROVAL DATE

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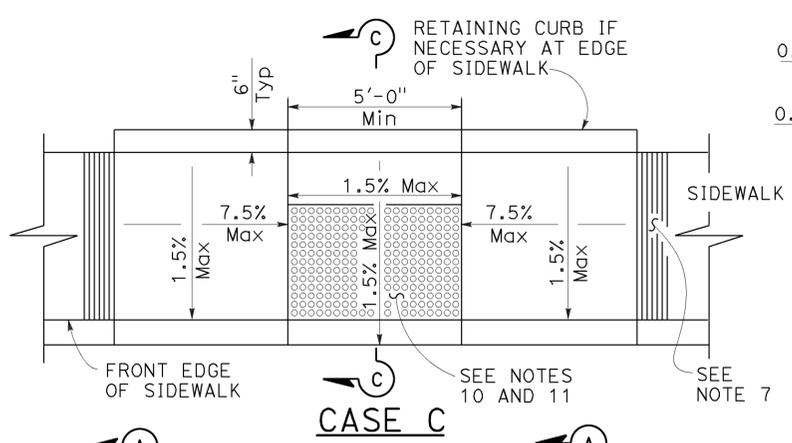
Hector David Cordova
No. C41957
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA



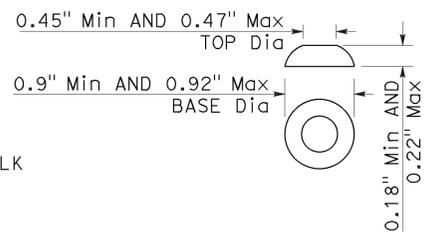
CASE A



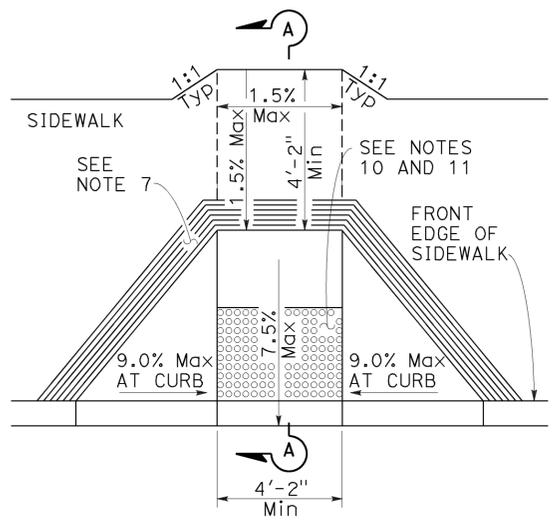
CASE B



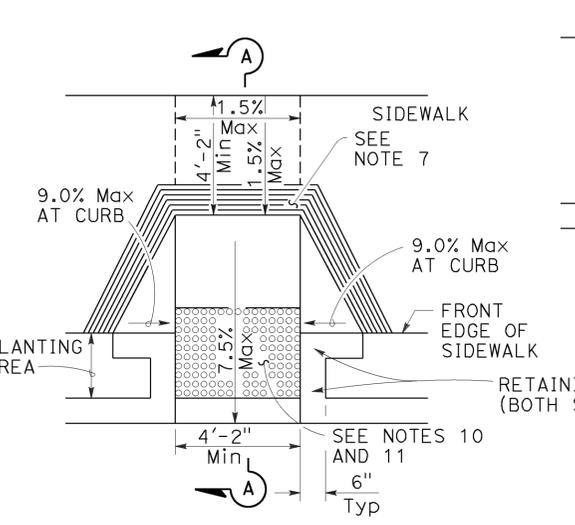
CASE C



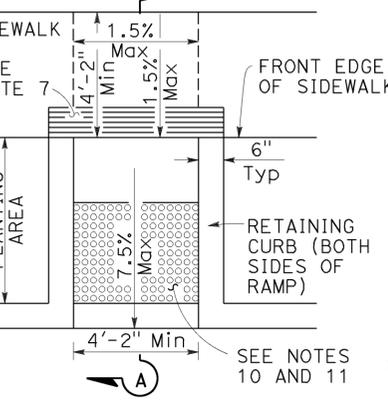
RAISED TRUNCATED DOME



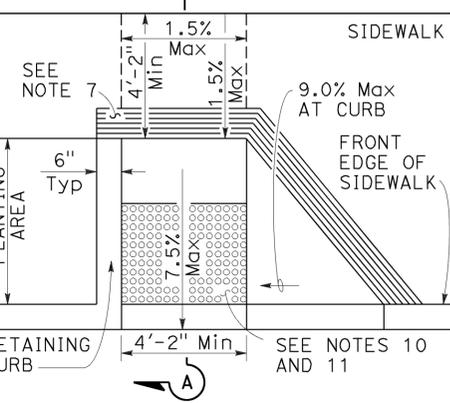
CASE D



CASE E



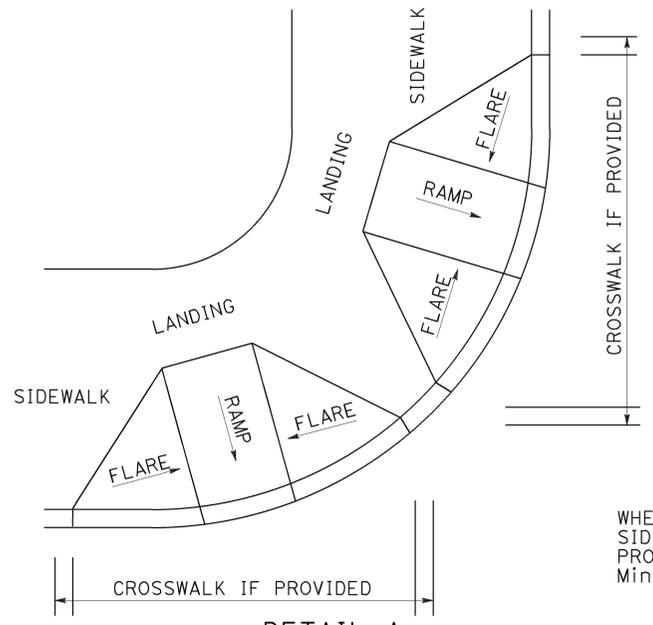
CASE F



CASE G

NOTES:

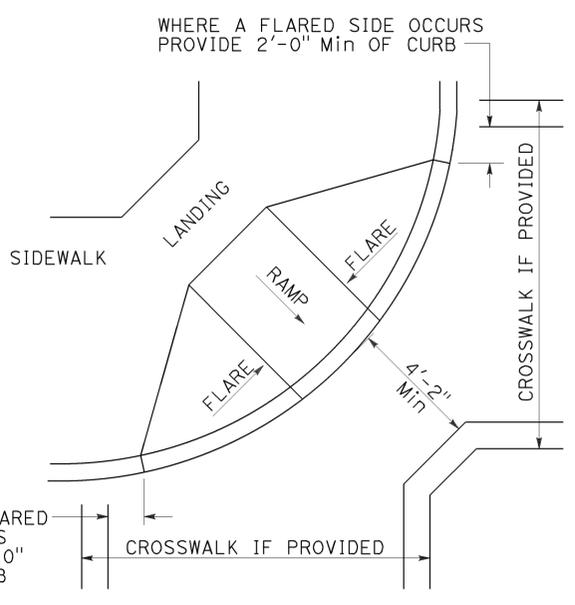
- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B, or C or may be widened as in Case D.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-2".
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The curb ramp shall be outlined, as shown, with a 1'-0" wide border with 1/4" grooves approximately 3/4" on center. See grooving detail.
- Transitions from ramps and landing to walks, gutters or streets shall be flush (no lip) and free of abrupt changes.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1:20 (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide curb ramp. Detectable Warning Surfaces shall conform to the requirements in the Standard Specifications.
- The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
- Sidewalk and ramp thickness, "T", shall be 3/2" minimum.
- Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.



DETAIL A

TYPICAL TWO-RAMP CORNER INSTALLATION

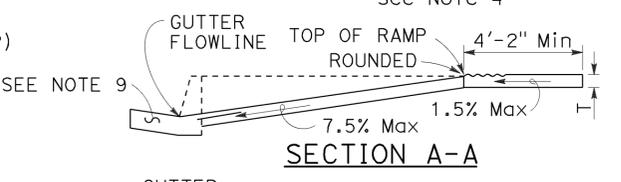
See Note 1



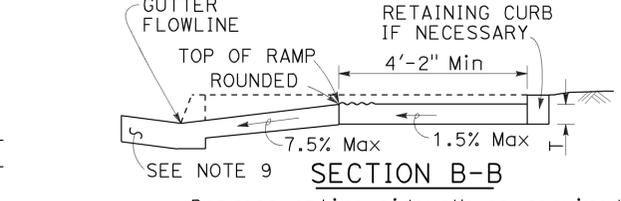
DETAIL B

TYPICAL ONE-RAMP CORNER INSTALLATION

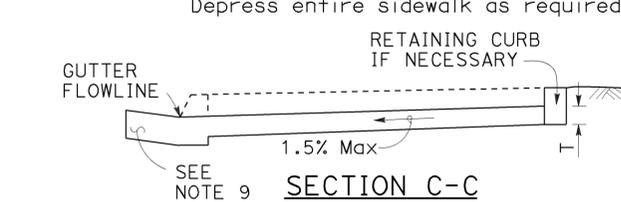
See Notes 1 and 3



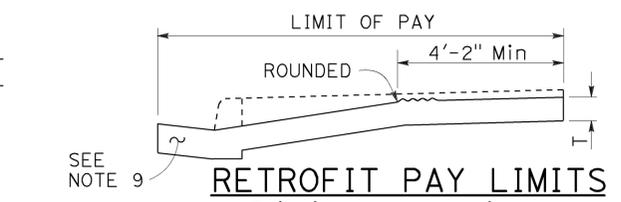
SECTION A-A



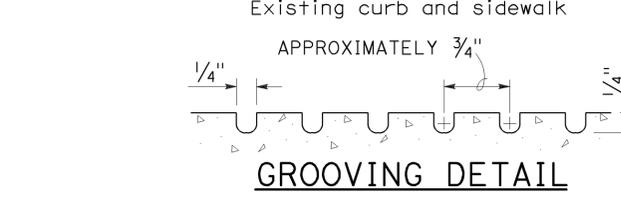
SECTION B-B



SECTION C-C



RETROFIT PAY LIMITS



GROOVING DETAIL



RAISED TRUNCATED DOME PATTERN (IN-LINE) DETECTABLE WARNING SURFACE

See Note 10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CURB RAMP DETAILS
NO SCALE

RSP A88A DATED MARCH 21, 2014 SUPERSEDES RSP A88A DATED JULY 19, 2013 AND STANDARD PLAN A88A DATED MAY 20, 2011 - PAGE 121 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A88A

2010 REVISED STANDARD PLAN RSP A88A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	63	80

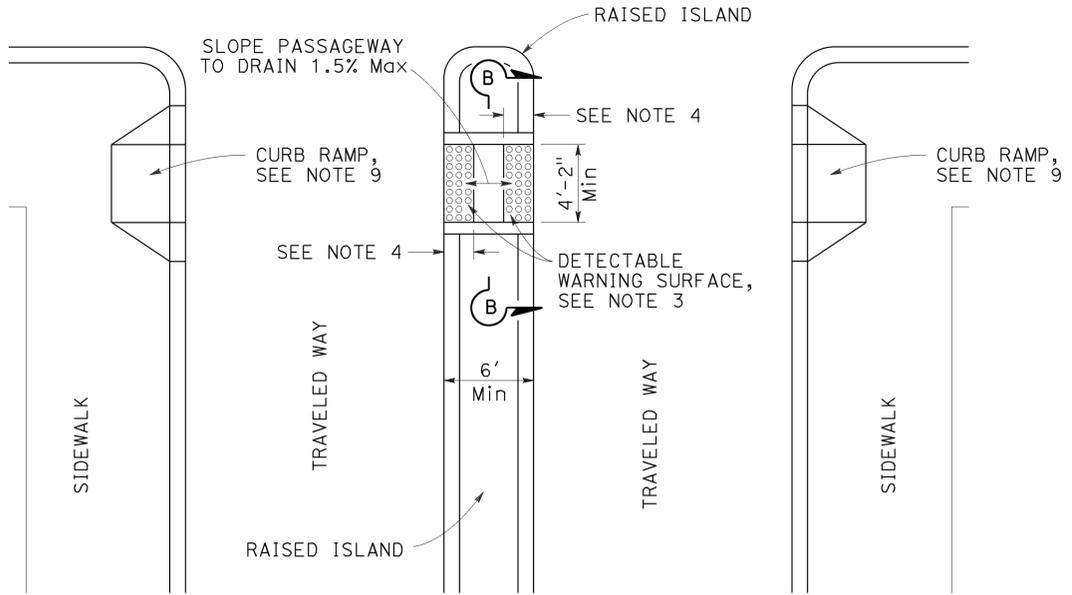
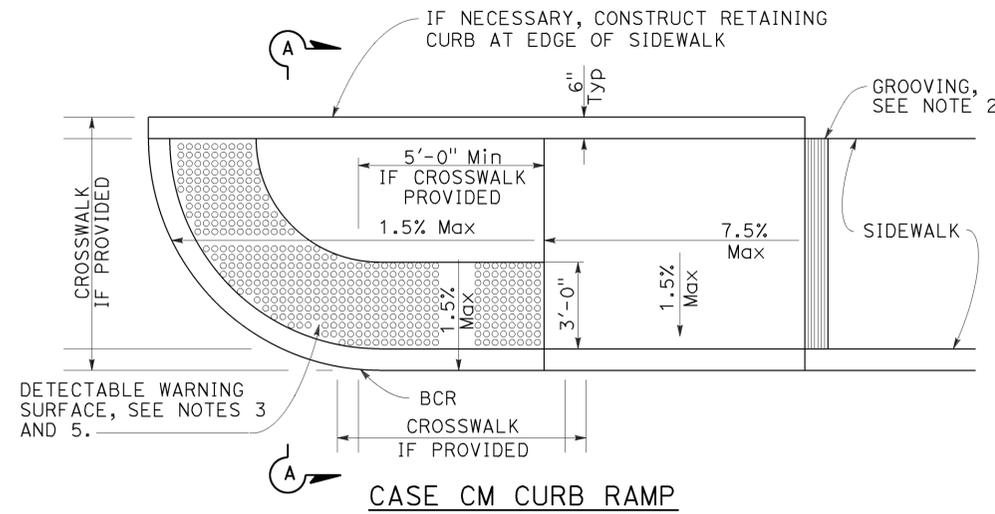
H. David Cordova
REGISTERED CIVIL ENGINEER

March 21, 2014
PLANS APPROVAL DATE

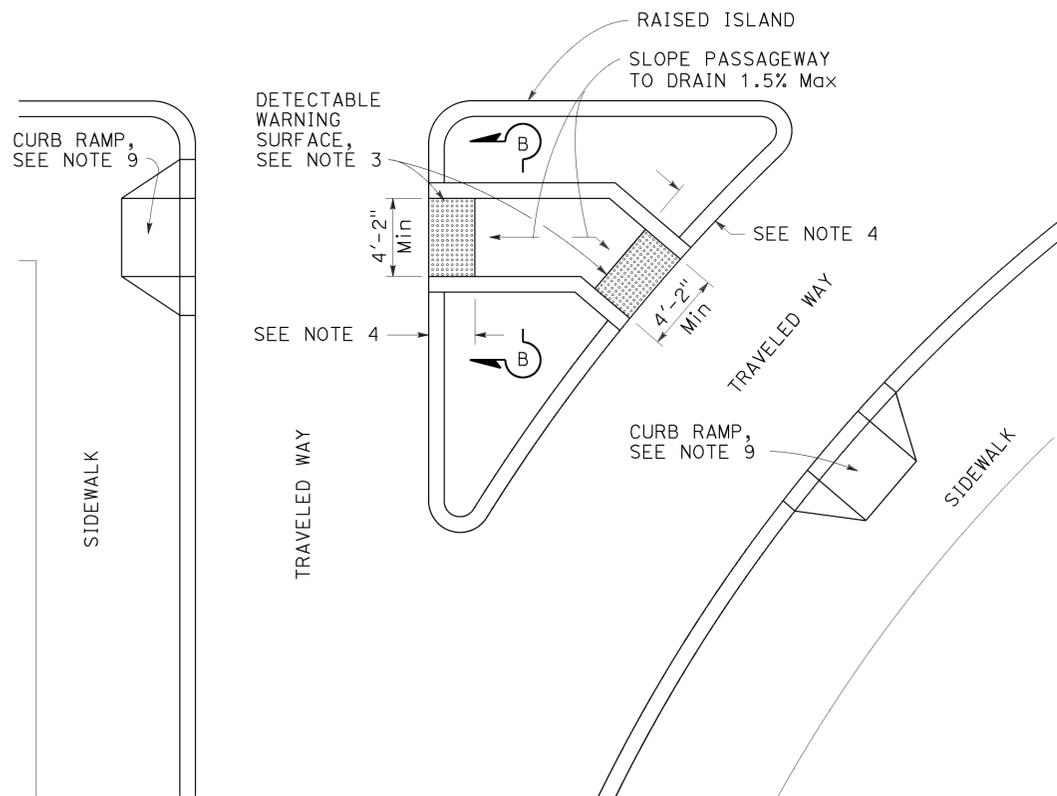
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Hector David Cordova
No. C41957
Exp. 3-31-14
REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA

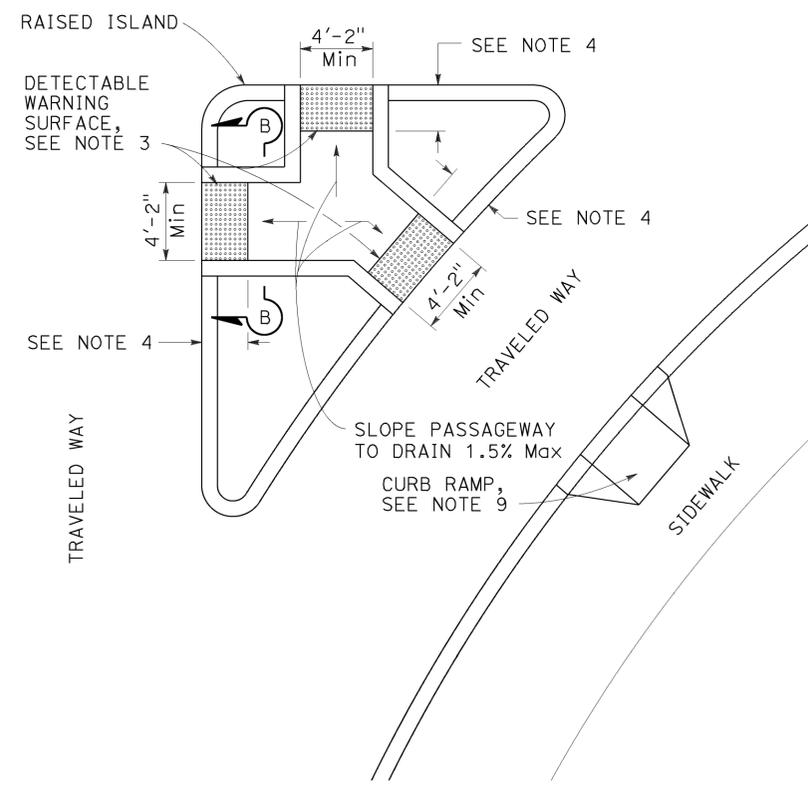
Gutter not shown



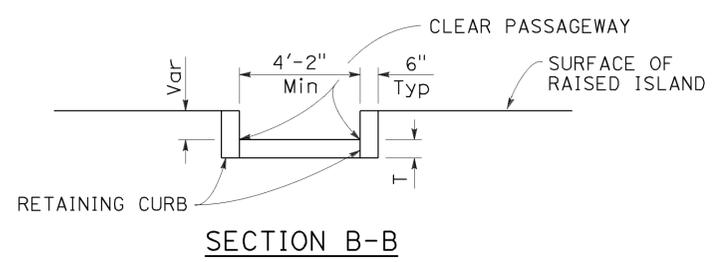
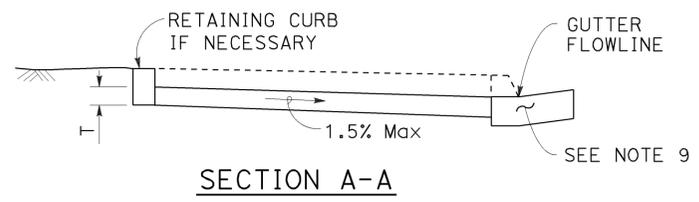
TYPE A PASSAGEWAY



TYPE B PASSAGEWAY



TYPE C PASSAGEWAY



NOTES:

1. Sidewalk, ramp and passageway thickness, "T", shall be 3 1/2" minimum.
2. For details of grooving used with Case CM curb ramp, see Revised Standard Plan RSP A88A.
3. For details of detectable warning surfaces, see Revised Standard Plan RSP A88A.
4. Where an island passageway length is greater than or equal to 6'-0", but less than 8'-0", each detectable warning surface shall extend the full width and 2'-0" depth of the passageway length. Where an island passageway length is greater than or equal to 8'-0", each detectable warning surface shall extend the full width and 3'-0" depth of the passageway length. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide island passageway.
5. For Case CM curb ramp, the edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
6. Transitions from ramps to walks, gutters or streets shall be flush (no lip) and free of abrupt changes.
7. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
8. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.
9. For additional curb ramp details, see Revised Standard Plan RSP A88A.

TO ACCOMPANY PLANS DATED 3-16-15

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

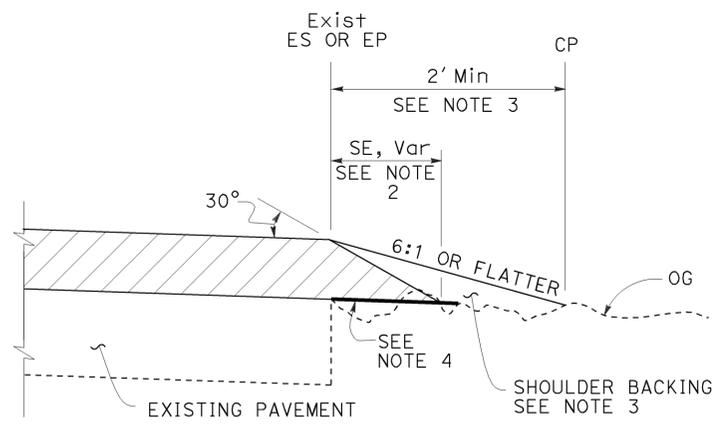
CURB RAMP AND ISLAND PASSAGEWAY DETAILS

NO SCALE

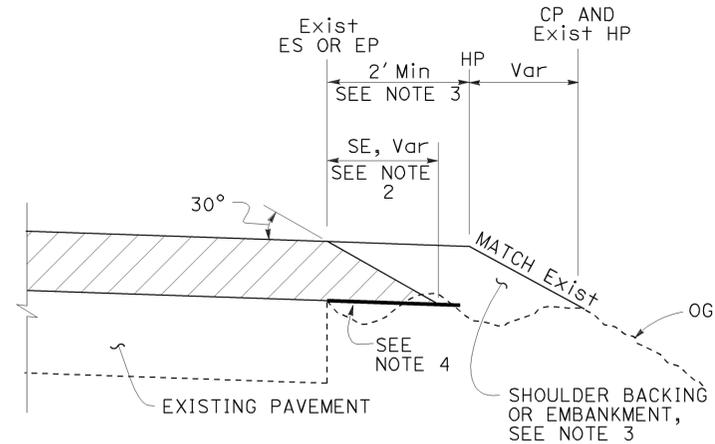
RSP A88B DATED MARCH 21, 2014 SUPERSEDES RSP A88B DATED JULY 19, 2013 AND STANDARD PLAN A88B DATED MAY 20, 2011 - PAGE 122 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A88B

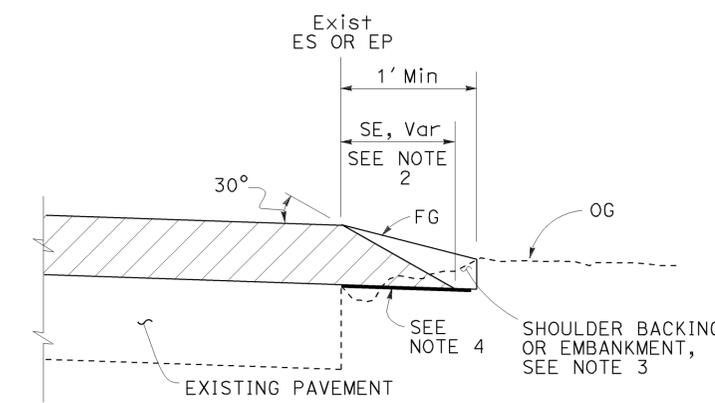
2010 REVISED STANDARD PLAN RSP P75



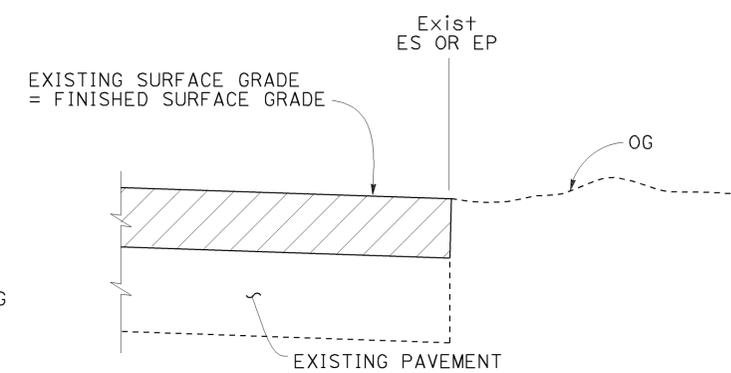
CASE A
Safety Edge



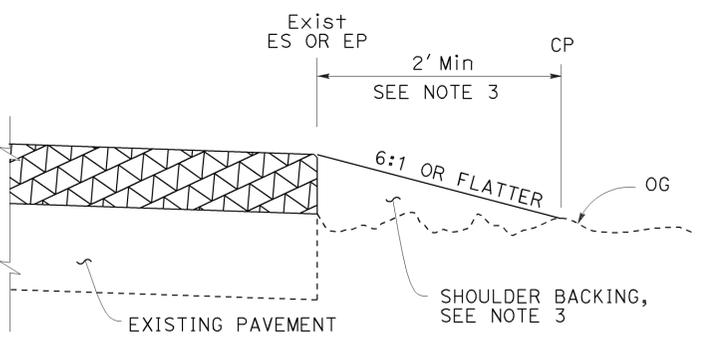
CASE B
Safety Edge



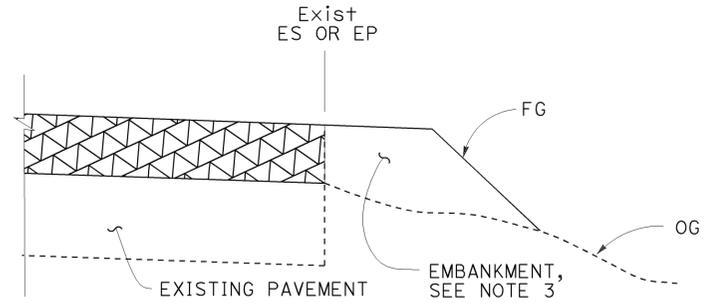
CASE C
Safety Edge



CASE D
Vertical Edge



CASE E
Vertical Edge



CASE F
Vertical Edge
* See Table A and Revised Std Plan RSP P74

- NOTES:**
- For limits of safety edge and vertical edge treatments, see Revised Standard Plan RSP P74.
 - Details shown for HMA overlay thickness less than 0.43'. See Detail "A" for HMA overlay thickness more than 0.43' or concrete overlay.
 - For locations and limits of shoulder backing or embankment see project plans.
 - Grade existing ground to place safety edge. 1' minimum width
 - Safety edge transverse joint must match overlay transverse joint. End of #6 longitudinal bar must be 2" ± 1/2" clear from transverse joint.
 - Safety edge is not needed in the area of MGS, barrier, right turn lane and acceleration lane. See Revised Standard Plan RSP P74.

LEGEND:

- HMA OVERLAY
- HMA OR CONCRETE OVERLAY
- CONCRETE OVERLAY

ABBREVIATIONS:

- SE SAFETY EDGE
- TT TOTAL THICKNESS OF SE

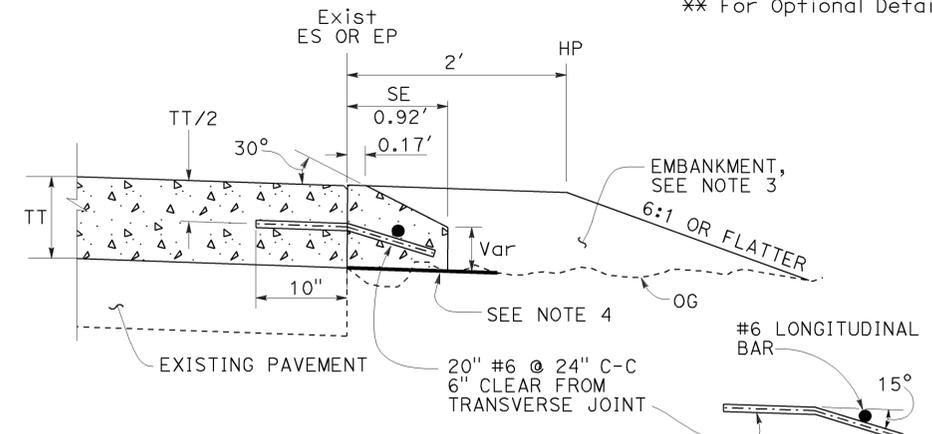
TABLE A
EDGE TREATMENT FOR VARIOUS OVERLAY THICKNESS AND CONDITIONS

FIELD CONDITION	OVERLAY THICKNESS	
	LESS THAN 0.15'	0.15' OR MORE
Exist SLOPE 6:1 OR FLATTER	CASE E	CASE A
Exist SLOPE 3:1 TO 6:1	CASE E	CASE B
Exist SLOPE STEEPER THAN 3:1	CASE F	CASE F
CUT SECTION (REPLACE, COLD PLANE, MILL PAVEMENT)	CASE D	CASE C

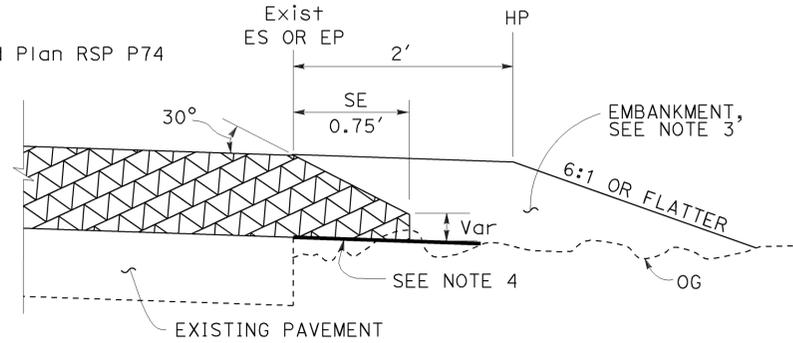
TO ACCOMPANY PLANS DATED 3-16-15
ADDITIONAL HMA OR CONCRETE QUANTITIES FOR SE/SIDE/MILE

TYPICAL CROSS SECTION	TT	TOTAL ADDITIONAL MATERIAL FOR SE/SIDE/MILE		
		HMA (TON)	CONCRETE (CY)*	CONCRETE (CY)**
	0.15'	NA	NA	NA
	0.20'	13.7	NA	NA
	0.30'	30.9	NA	NA
	0.40'	54.9	NA	NA
	0.45'	69.4	NA	NA
	0.50'	84.2	NA	NA
	0.60'	113.9	NA	NA
	0.70'	143.6	70.9	94.2
	0.80'	173.3	85.6	112.2
	0.90'	203.0	100.3	130.2
	1.00'	232.7	114.9	148.2
	1.10'	262.4	129.6	166.2
	1.20'	292.1	144.3	184.2

* For Detail "A"
 ** For Optional Detail "A"



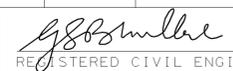
OPTIONAL DETAIL "A"
For concrete overlay See Note 5

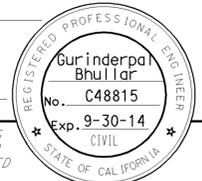


DETAIL "A"
For HMA overlay thickness more than 0.43' or concrete overlay

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT EDGE TREATMENTS - OVERLAYS
 NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	66	80


 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 3-16-15

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**

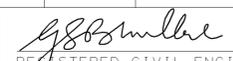
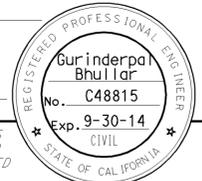
NO SCALE

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

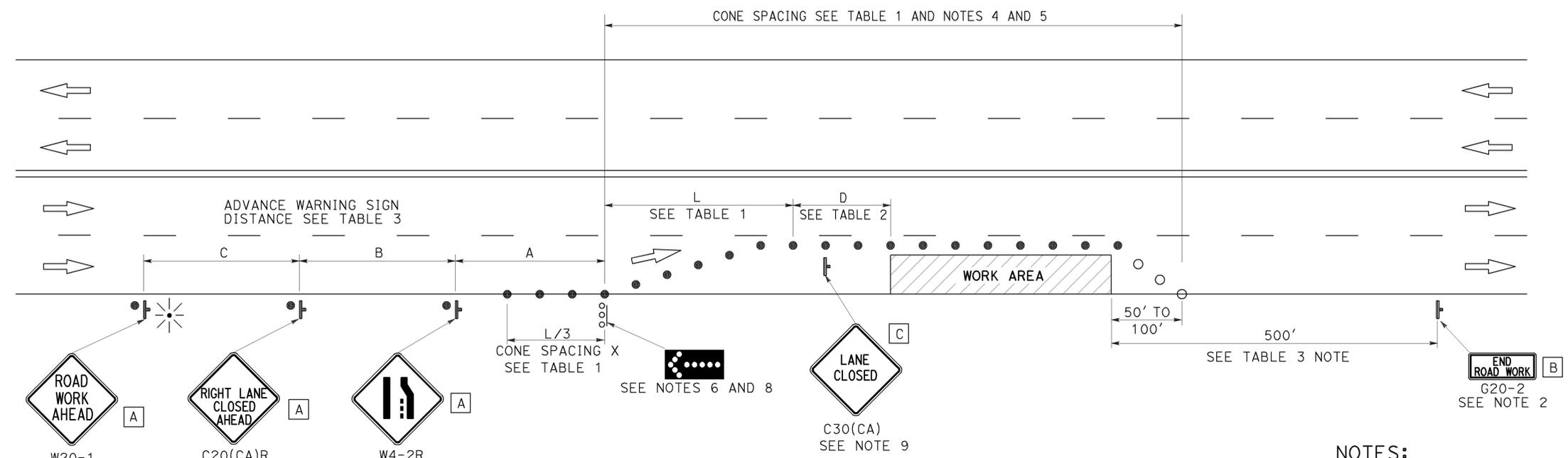
REVISED STANDARD PLAN RSP T9

2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	67	80


 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE


TO ACCOMPANY PLANS DATED 3-16-15



TYPICAL LANE CLOSURE

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:

- Each advance warning 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. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- 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.
- 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.
- 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.
- Flashing arrow sign shall be either Type I or Type II.
- For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- 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.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- 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.

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 36" x 18"
- C 30" x 30"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 MULTILANE CONVENTIONAL
 HIGHWAYS**

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11
 DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	68	80

April 19, 2013
 PLANS APPROVAL DATE

Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 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.

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.

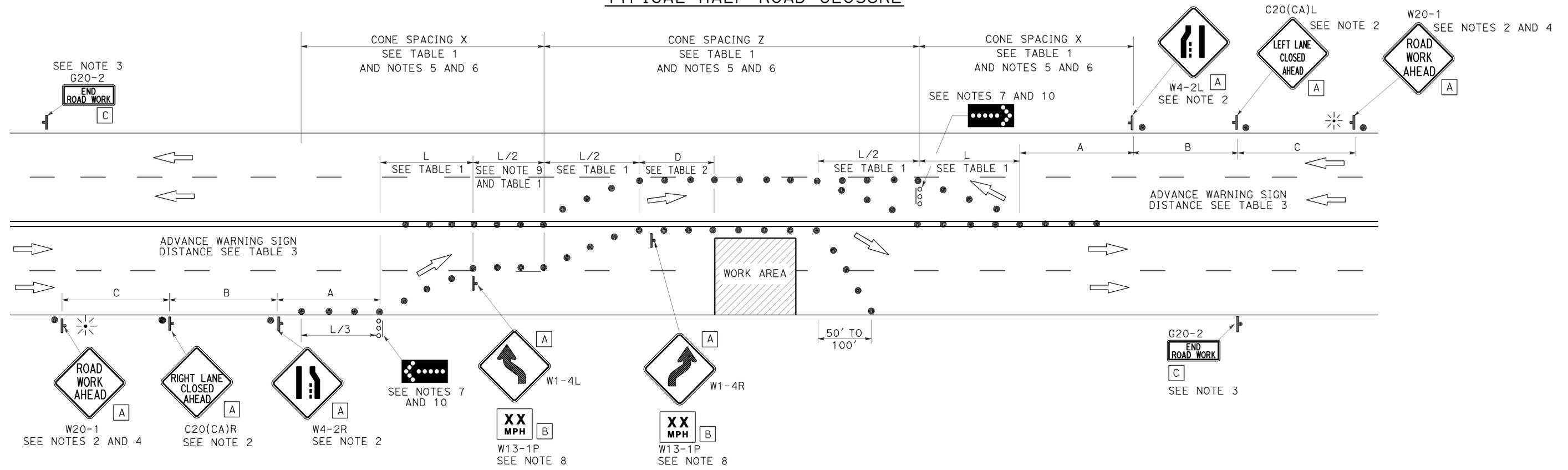
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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 3-16-15

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

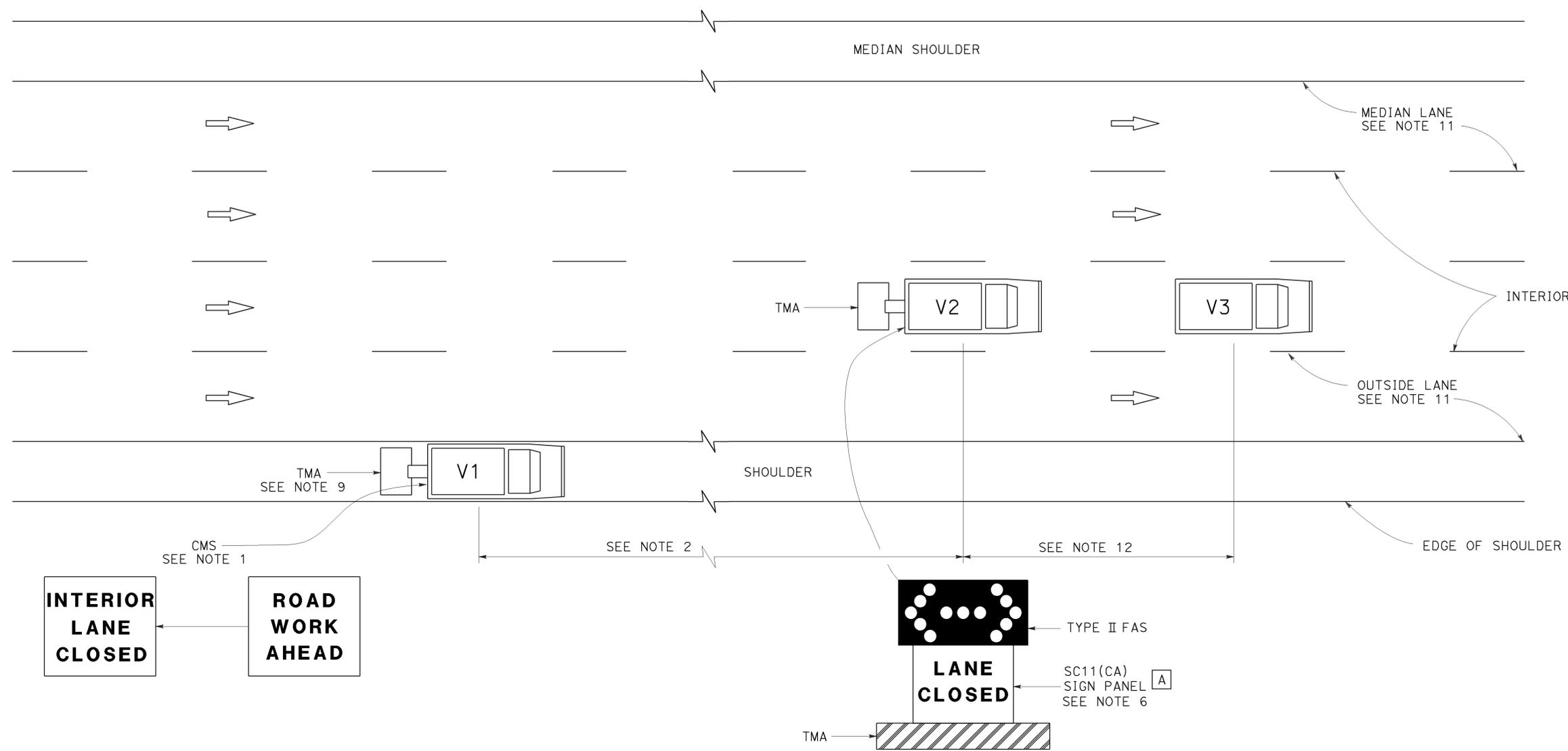
2010 REVISED STANDARD PLAN RSP T12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	69	80

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 3-16-15



SIGN PANEL SIZE (Min)

A 54" x 42"

LEGEND

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

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

NOTES:

1. A changeable message 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 "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
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.
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 median lane or outside lane of multilane highways, use Revised Standard Plan T15.
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.

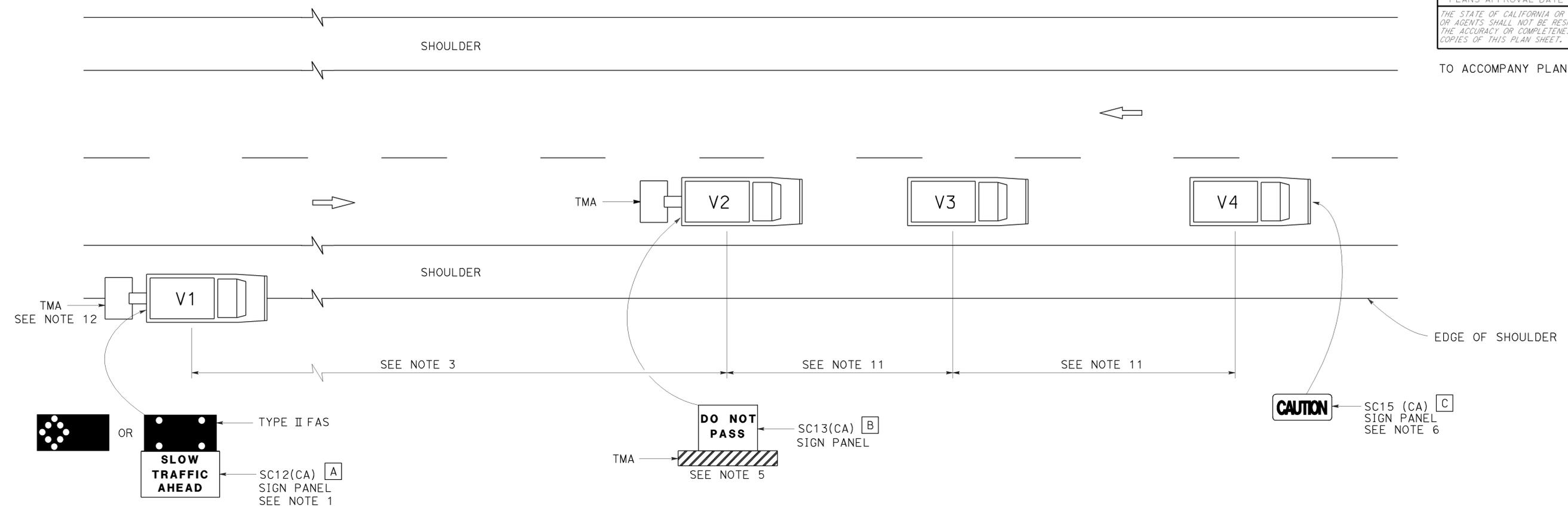
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON MULTILANE HIGHWAYS**
 NO SCALE

RSP T16 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T16 DATED MAY 20, 2011 - PAGE 244 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T16

2010 REVISED STANDARD PLAN RSP T16

TO ACCOMPANY PLANS DATED 3-16-15



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

LEGEND:

AB	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
BC	INSTALL PULL BOX IN EXISTING CONDUIT RUN
BP	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
CB	INSTALL CONDUIT INTO EXISTING PULL BOX
CC	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
CF	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
DH	DETECTOR HANDHOLE
FA	FOUNDATION TO BE ABANDONED
IS	INSTALL SIGN ON SIGNAL MAST ARM
NS	NO SLIP BASE ON STANDARD
PEC	PHOTOELECTRIC CONTROL
PEU	PHOTOELECTRIC UNIT
RC	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RE	REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
RL	RELOCATE EQUIPMENT
RR	REMOVE AND REUSE EQUIPMENT
RS	REMOVE AND SALVAGE EQUIPMENT
SC	SPLICE NEW TO EXISTING CONDUCTORS
SD	SERVICE DISCONNECT
TSP	TELEPHONE SERVICE POINT

ABBREVIATIONS

APS	ACCESSIBLE PEDESTRIAN SIGNAL	M/M	MULTIPLE TO MULTIPLE TRANSFORMER
BBS	BATTERY BACKUP SYSTEM	Mtg	MOUNTING
BC	BOLT CIRCLE	MV	MERCURY VAPOR LIGHTING FIXTURE
BPB	BICYCLE PUSH BUTTON	MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
C	CONDUIT	N	NEUTRAL (GROUNDED CONDUCTOR)
CB	CIRCUIT BREAKER	NB	NEUTRAL BUS
CCTV	CLOSED CIRCUIT TELEVISION	NC	NORMALLY CLOSE
Ck+	CIRCUIT	NO	NORMALLY OPEN
CMS	CHANGEABLE MESSAGE SIGN	P	CIRCUIT BREAKER'S POLE
Ctid	CALTRANS IDENTIFICATION	PB	PULL BOX
Comm	COMMUNICATION	PBA	PUSH BUTTON ASSEMBLY
DLC	LOOP DETECTOR LEAD-IN CABLE	PEC	PHOTOELECTRIC CONTROL
EMS	EXTINGUISHABLE MESSAGE SIGN	Ped	PEDESTRIAN
EVUC	EMERGENCY VEHICLE UNIT CABLE	PEU	PHOTOELECTRIC UNIT
EVUD	EMERGENCY VEHICLE UNIT DETECTOR	PT	CONDUIT WITH PULL TAPE
FB	FLASHING BEACON	RE	RELOCATED EQUIPMENT
FBCA	FLASHING BEACON CONTROL ASSEMBLY	RM	RAMP METERING
FBS	FLASHING BEACON WITH SLIP BASE	RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
FO	FIBER OPTIC	SB	SLIP BASE
G	EQUIPMENT GROUNDING CONDUCTOR	SIC	SIGNAL INTERCONNECT CABLE
GB	GROUND BUS	Sig	SIGNAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SMA	SIGNAL MAST ARM
HAR	HIGHWAY ADVISORY RADIO	SNS	STREET NAME SIGN
Hex	HEXAGONAL	SP	SERVICE POINT
HPS	HIGH PRESSURE SODIUM	TDC	TELEPHONE DEMARCATION CABINET
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN	TMS	TRAFFIC MONITORING STATION
ISL	INDUCTION SIGN LIGHTING	TOS	TRAFFIC OPERATIONS SYSTEM
LED	LIGHT EMITTING DIODE	Veh	VEHICLE
LMA	LUMINAIRE MAST ARM	VIVDS	VIDEO IMAGE VEHICLE DETECTION SYSTEM
LPS	LOW PRESSURE SODIUM	WIM	WEIGH-IN-MOTION
Ltg	LIGHTING	Xfmr	TRANSFORMER
Lum	LUMINAIRE		
M	METERED		
MAT	MAST ARM MOUNTING TOP ATTACHMENT		
MAS	MAST ARM MOUNTING SIDE ATTACHMENT		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	71	80

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 3-16-15

SOFFIT AND WALL MOUNTED LUMINAIRES

- PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(dc)	VOLT (DIRECT CURRENT)
V(ac)	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
Hz	HERTZ

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

- NOTES:**
- HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
 - LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
 - Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

STANDARD ELECTROLIER

NEW	EXISTING	STANDARD TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	72	80

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 3-16-15

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CONDUIT

NEW	EXISTING	
---	---	LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
---	---	TRAFFIC SIGNAL CONDUIT
---C---	---c---	COMMUNICATION CONDUIT
---T---	---t---	TELEPHONE CONDUIT
---F---	---f---	FIRE ALARM CONDUIT
---FO---	---fo---	FIBER OPTIC CONDUIT
---	---	CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

SIGNAL EQUIPMENT

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

SERVICE EQUIPMENT

NEW	EXISTING	
---OH---	---oh---	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

POLE-MOUNTED SERVICE DESIGNATION

	TYPE H SERVICE, 28'-10"	TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE
--	-------------------------	--

FLASHING BEACON

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

NOTES:

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

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

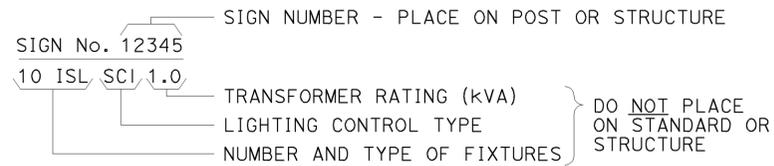
RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

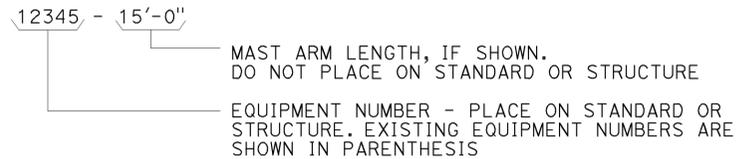
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

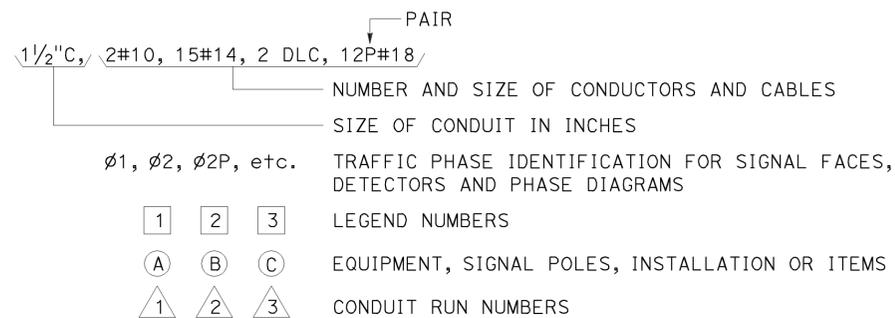
ILLUMINATED SIGN IDENTIFICATION NUMBER:



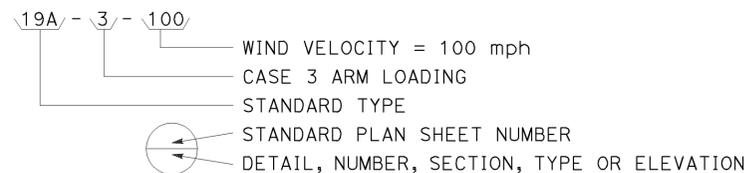
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



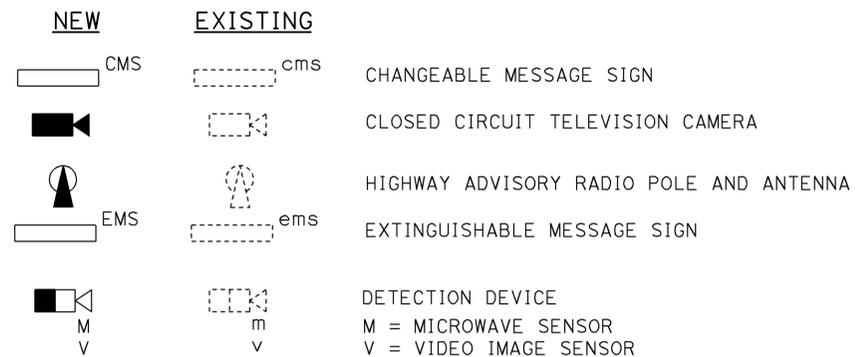
CONDUIT AND CONDUCTOR IDENTIFICATION:



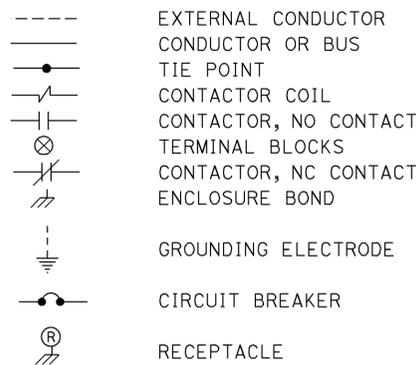
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



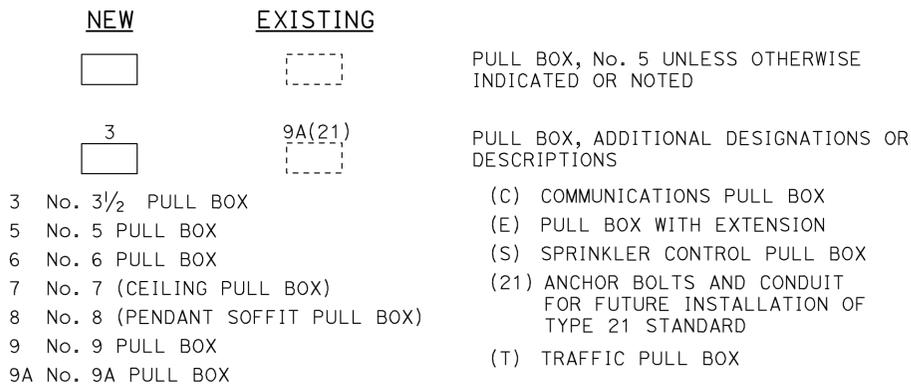
MISCELLANEOUS EQUIPMENT



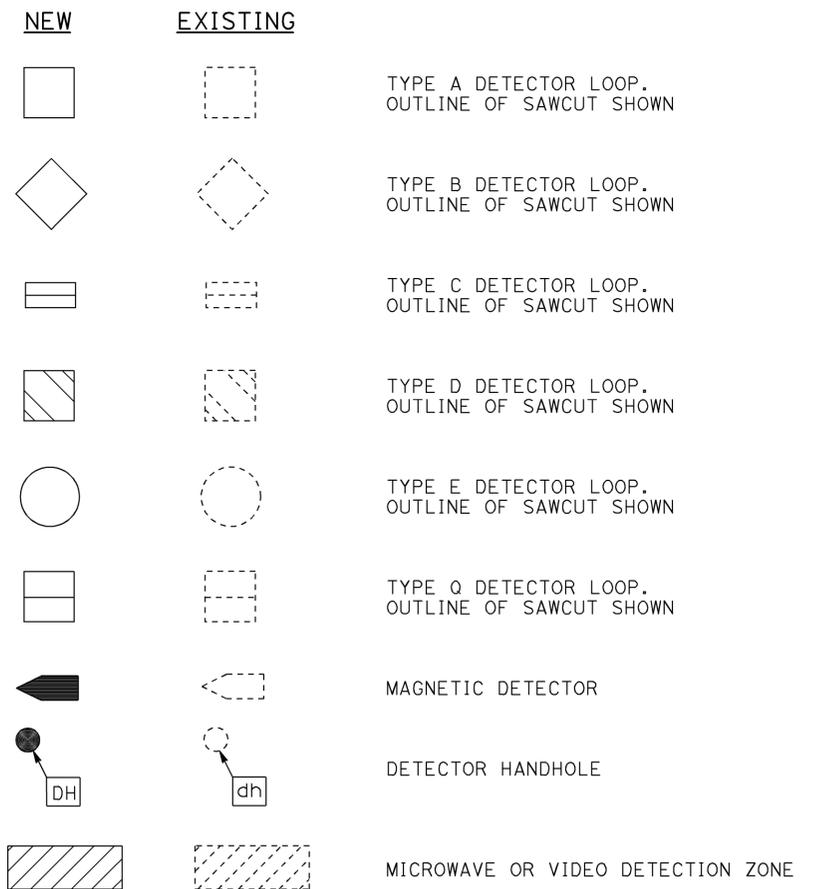
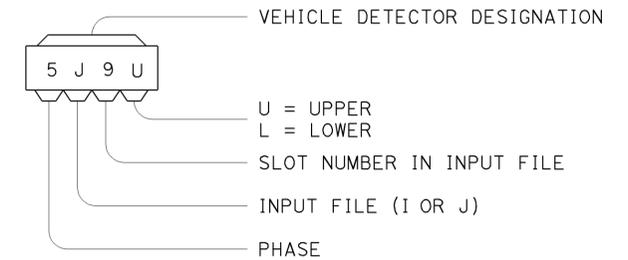
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

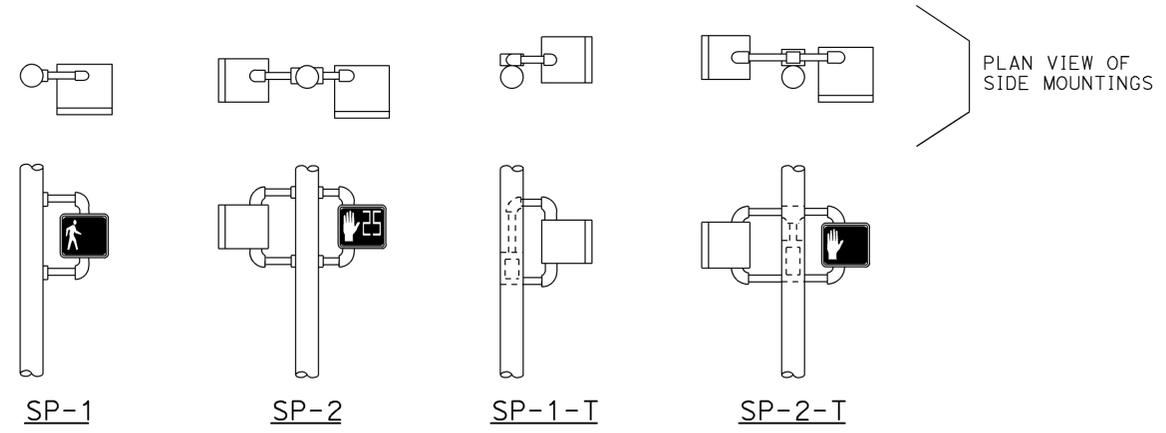
RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1C

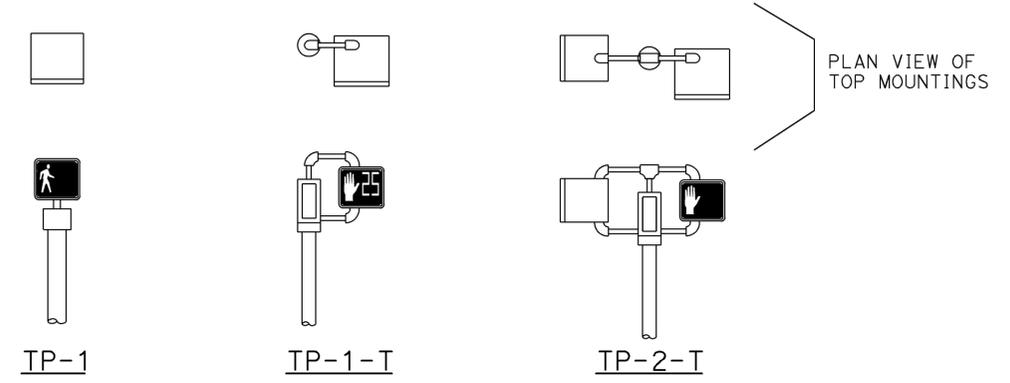
2010 REVISED STANDARD PLAN RSP ES-1C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	74	80
<i>Theresa Gabriel</i> REGISTERED ELECTRICAL ENGINEER					
October 17, 2014 PLANS APPROVAL DATE					
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TO ACCOMPANY PLANS DATED 3-16-15



SIDE MOUNTINGS



TOP MOUNTINGS

PEDESTRIAN SIGNALS AND MOUNTINGS

DETAIL A

NOTES:

1. Mounting shall be oriented to provide maximum horizontal clearance to adjacent roadway.
2. Bracket arms shall be long enough to permit proper alignment of signals.
3. See Standard Plan ES-4D for attachment fittings details.

ABBREVIATIONS:

- 1, 2 NUMBER OF SIGNAL FACES
- SP SIDE MOUNTED PEDESTRIAN SIGNAL
- T TERMINAL COMPARTMENT
- TP TOP MOUNTED PEDESTRIAN SIGNAL



PERSON WALKING INTERVAL FLASHING UPRaised HAND INTERVAL STEADY UPRaised HAND INTERVAL

PEDESTRIAN SIGNAL MODULE WITH COUNTDOWN

DETAIL B



PERSON WALKING INTERVAL STEADY UPRaised HAND INTERVAL

PEDESTRIAN SIGNAL MODULE WITHOUT COUNTDOWN

DETAIL C

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (PEDESTRIAN SIGNAL)**

NO SCALE

RSP ES-4B DATED OCTOBER 17, 2014 SUPERSEDES RSP ES-4B DATED JULY 19, 2013 AND STANDARD PLAN ES-4B DATED MAY 20, 2011 - PAGE 444 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4B

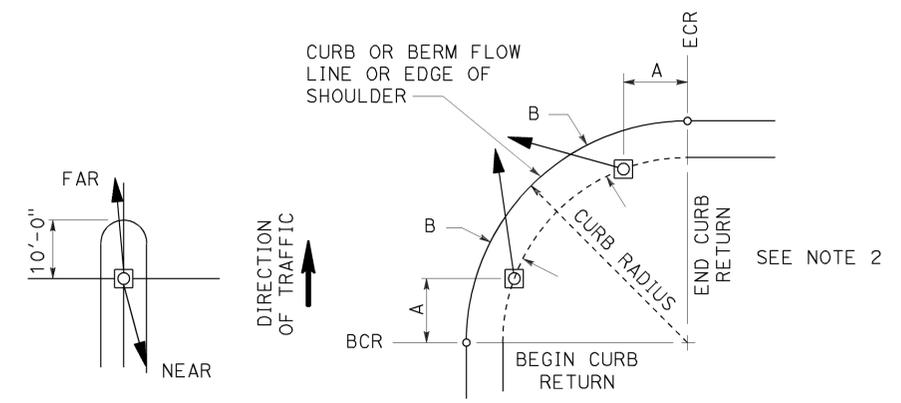
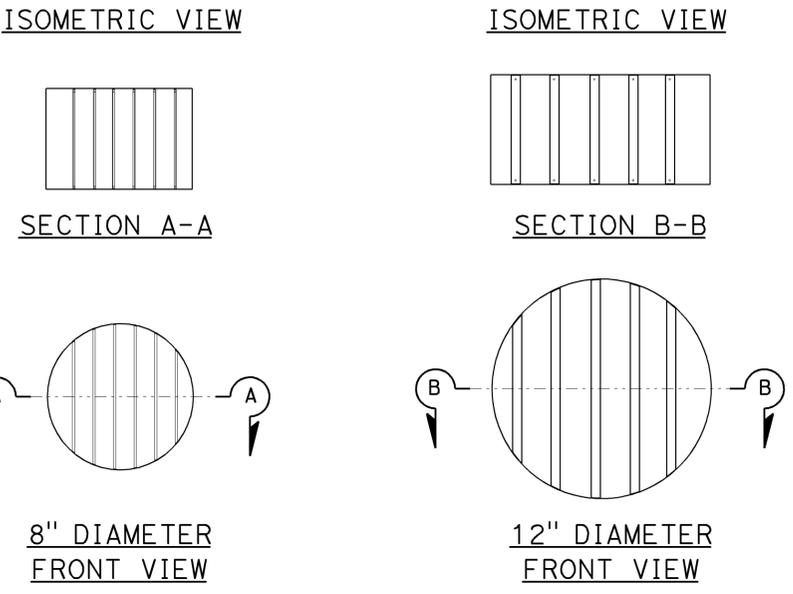
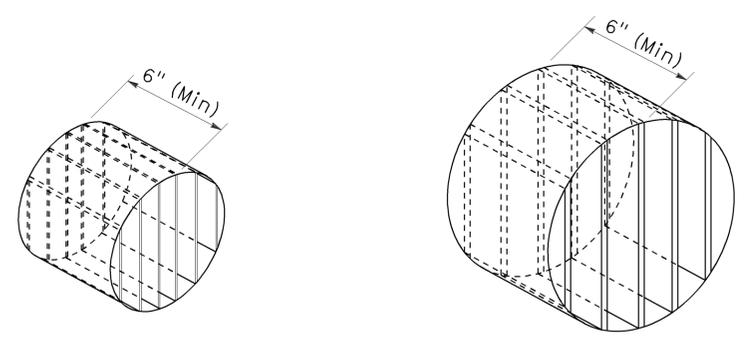
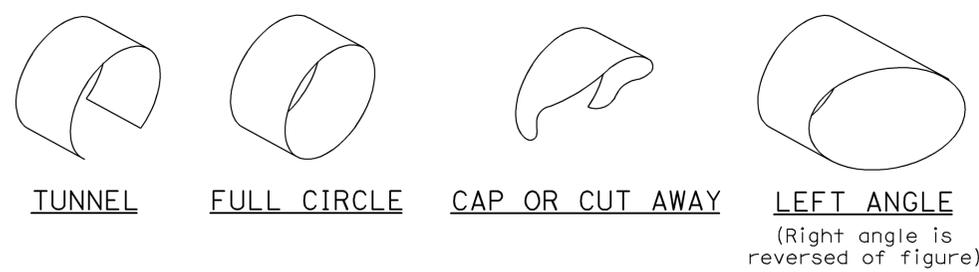
2010 REVISED STANDARD PLAN RSP ES-4B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	75	80

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

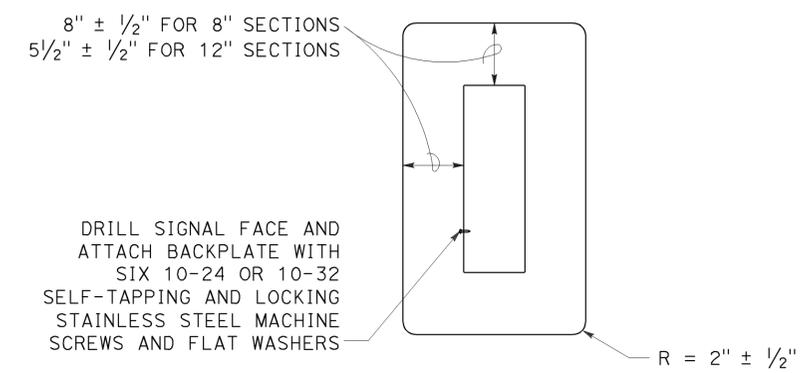
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TO ACCOMPANY PLANS DATED 3-16-15



- NOTES:**
1. Typical signal pole placement unless dimensioned on plans.
 2. For A and B dimensions, see Pole Schedule, or as directed by the Engineer.

VISORS



8" AND 12" SECTIONS

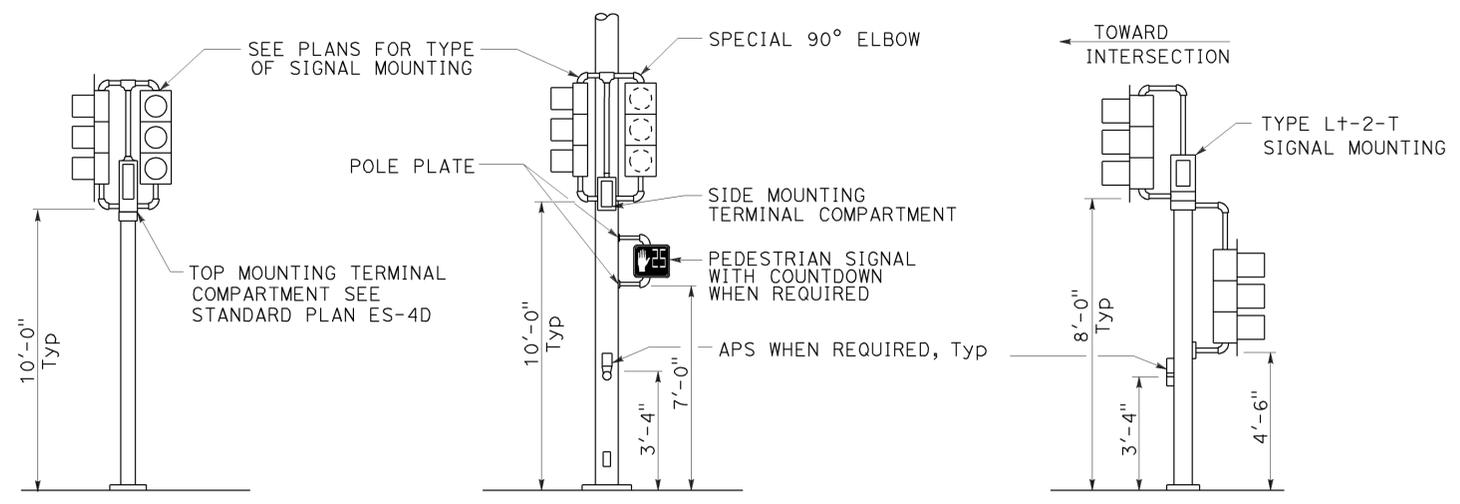
BACKPLATE

1/16" minimum thickness
 3001-14 aluminum or plastic when specified

DIRECTIONAL LOUVER

Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS



TOP MOUNTED SIGNALS (TV)

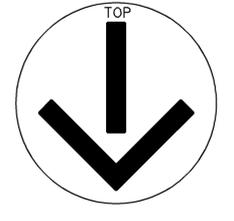
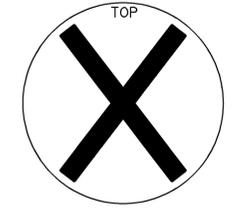
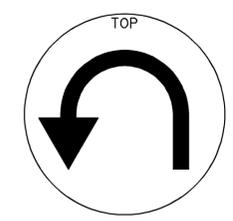
Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

SIDE MOUNTED SIGNALS (SV AND SP)

Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL

Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans



SIGNAL FACES

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (VEHICULAR SIGNAL HEADS AND MOUNTINGS)

NO SCALE

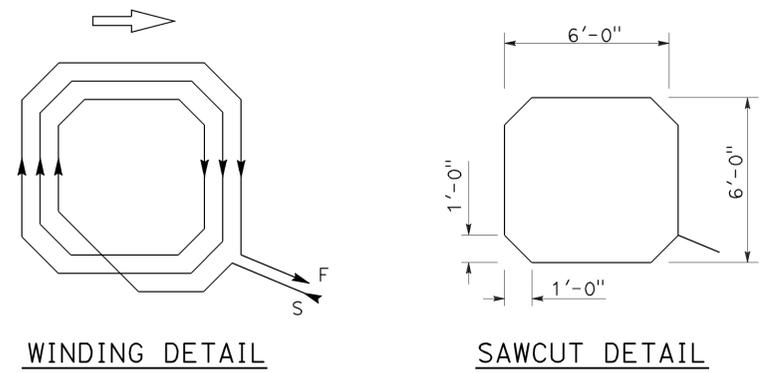
RSP ES-4C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-04C DATED MAY 20, 2011 - PAGE 445 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4C

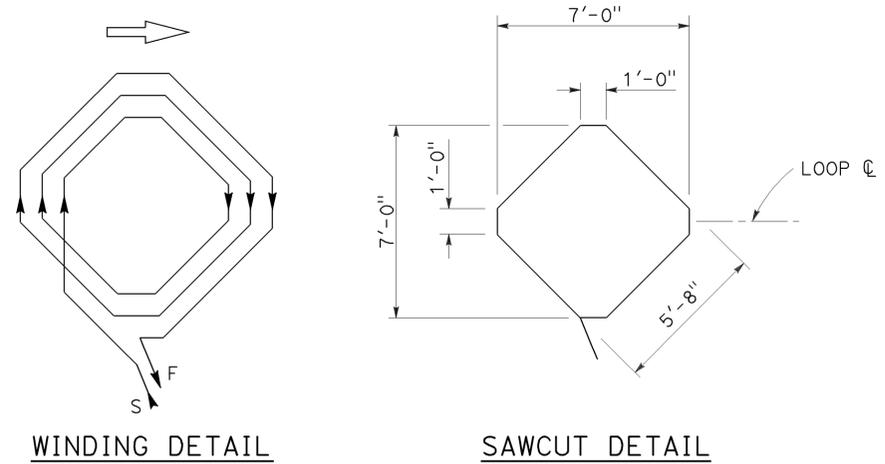
2010 REVISED STANDARD PLAN RSP ES-4C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	76	80
<i>Theresa Gabriel</i> REGISTERED ELECTRICAL ENGINEER July 19, 2013 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>					
REGISTERED PROFESSIONAL ENGINEER Theresa Aziz Gabriel No. E15129 Exp. 6-30-14 ELECTRICAL STATE OF CALIFORNIA					

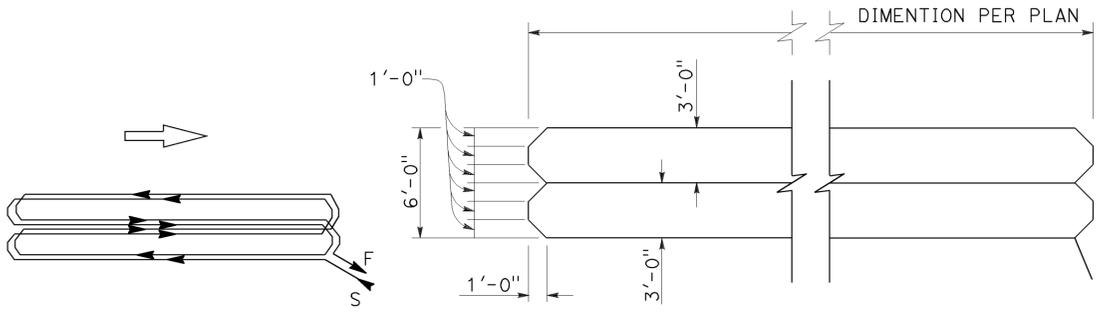
TO ACCOMPANY PLANS DATED 3-16-15



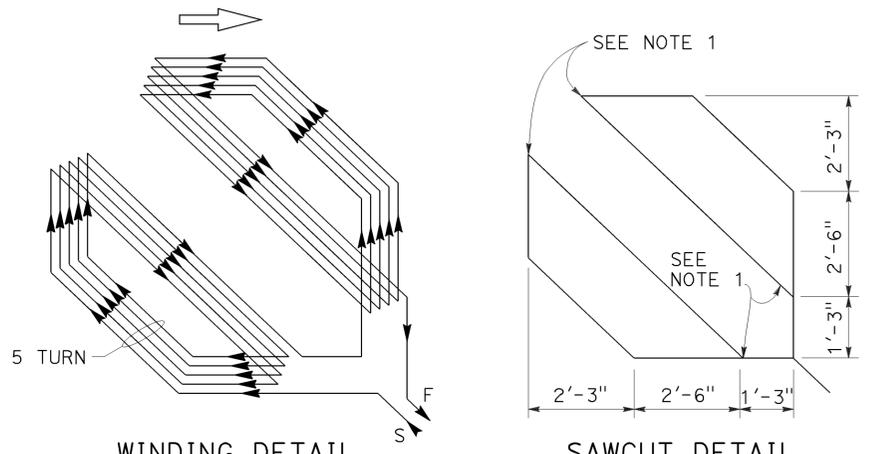
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



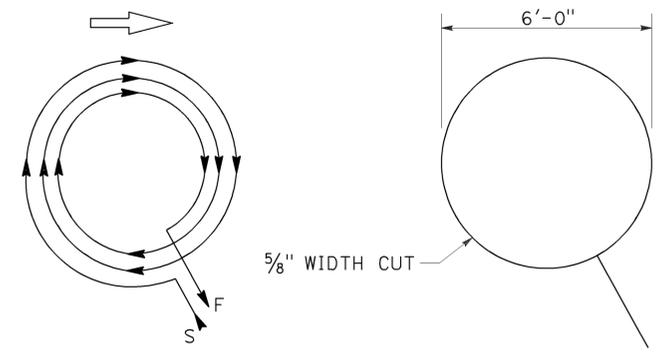
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



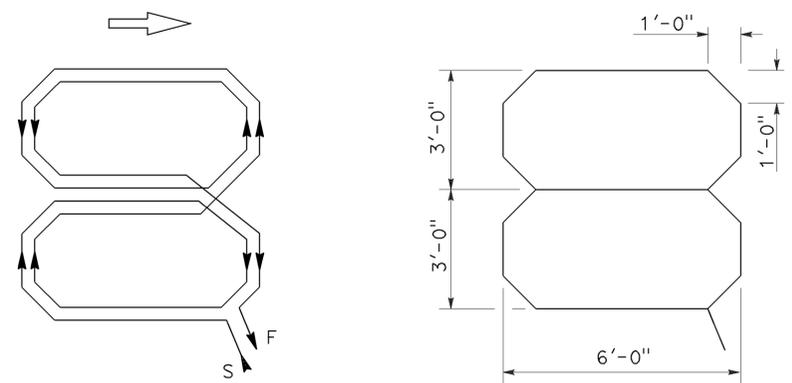
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



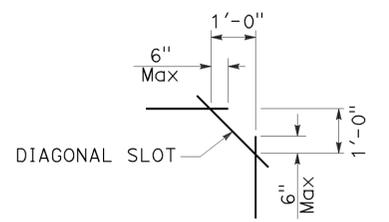
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



**PLAN VIEW OF
DIAGONAL SLOT
AT CORNERS**

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(DETECTORS)**

NO SCALE

RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B
DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	77	80

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE

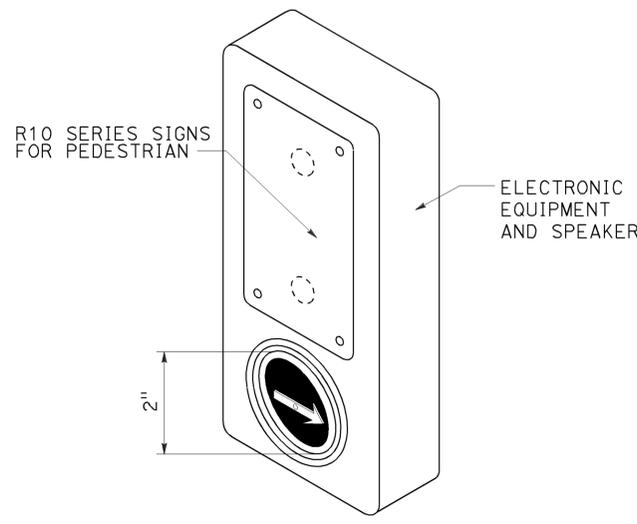
THE STATE OF CALIFORNIA OR ITS OFFICERS
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 COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Theresa
 Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

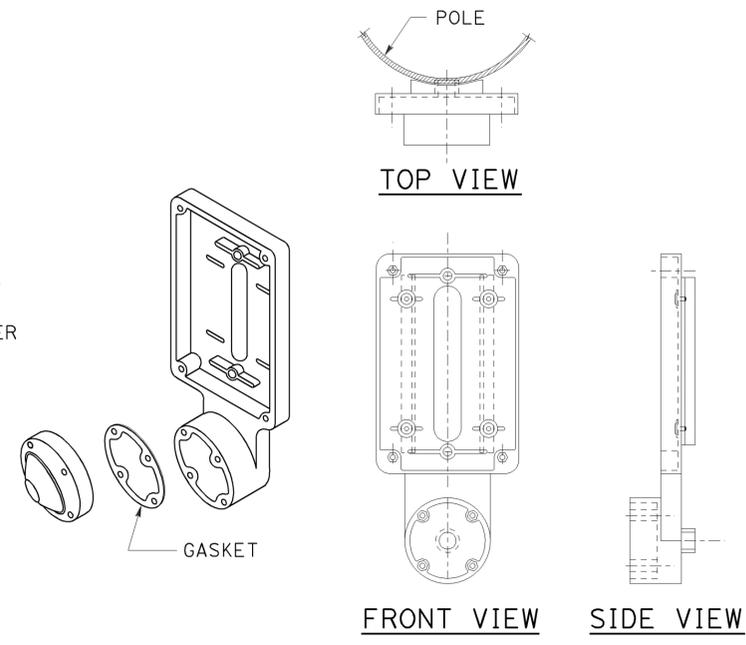
TO ACCOMPANY PLANS DATED 3-16-15

NOTES:

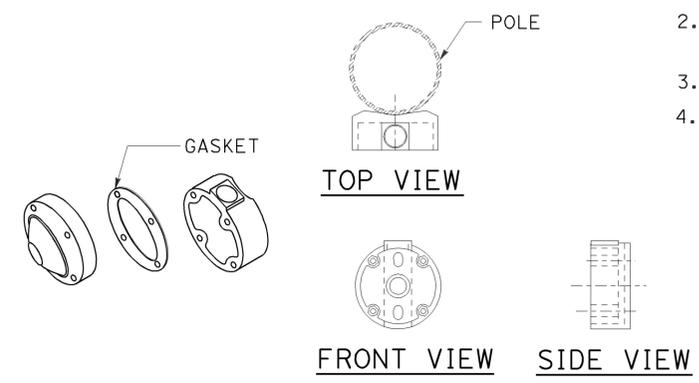
1. Back casting shape to fit curvature of pole.
2. Provide cover fitting for top of post, when PBA is mounted on push button assembly post.
3. Install push button on crosswalk side of standard.
4. Use R10 series regulatory signs and plaques for pedestrian and bicycle facilities.



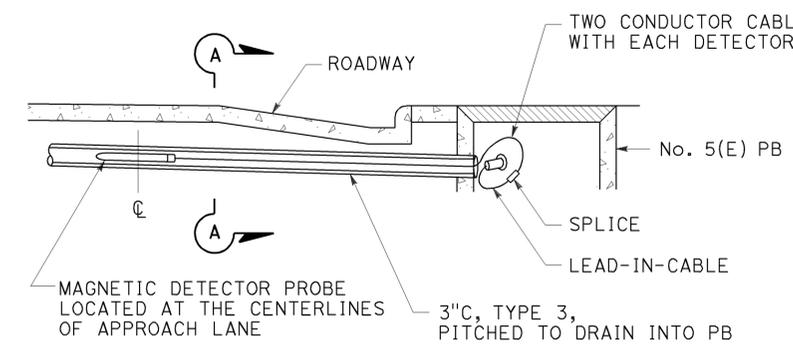
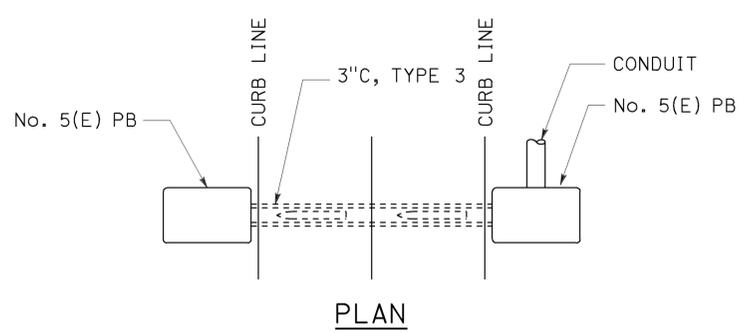
ACCESSIBLE PEDESTRIAN SIGNAL
DETAIL A
 (See note 1 to 4)



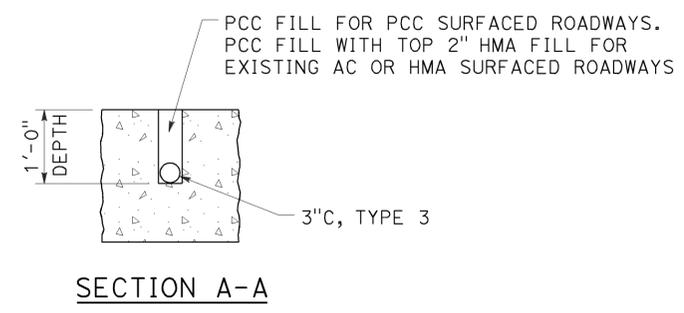
TYPE B PUSH BUTTON ASSEMBLY
DETAIL B
 (See note 1 to 4)



TYPE C PUSH BUTTON ASSEMBLY
DETAIL C
 (See note 1 to 4)



MAGNETIC VEHICLE DETECTOR
INSTALLATION DETAILS
DETAIL D



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS
(ACCESSIBLE PEDESTRIAN SIGNAL,
PUSH BUTTON ASSEMBLIES AND
MAGNETIC VEHICLE DETECTOR)

NO SCALE

RSP ES-5C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5C DATED MAY 20, 2011 - PAGE 450 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5C

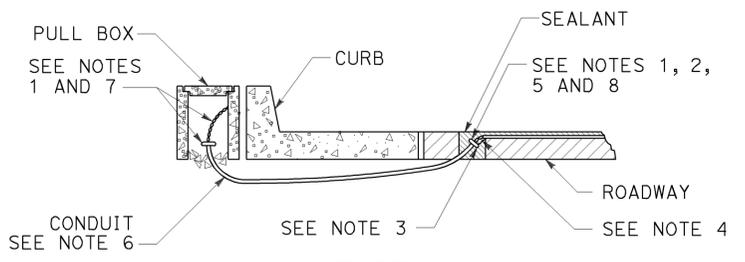
2010 REVISED STANDARD PLAN RSP ES-5C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	49	4.0/7.0	78	80

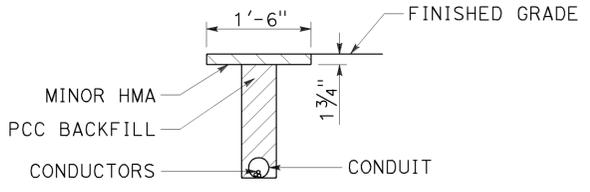
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 3-16-15

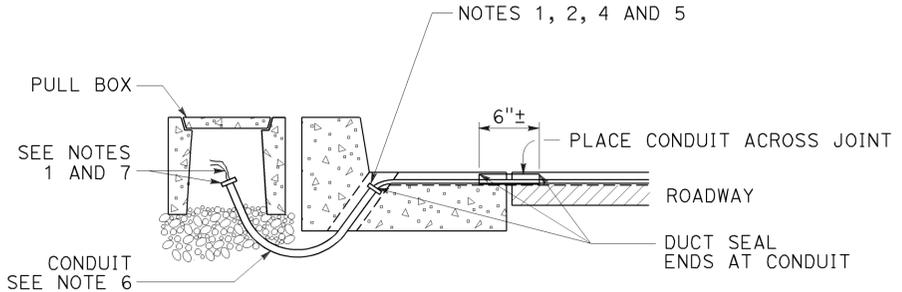


**TYPE A
CURB TERMINATION DETAIL**

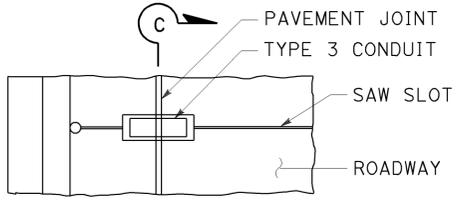


**"T" TRENCH
DETAIL T**

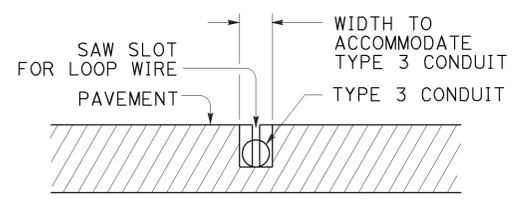
5/16" x 1 1/2" SCREW (BRASS, STAINLESS STEEL OR OTHER NON-CORRODING MATERIAL)



CROSS SECTION

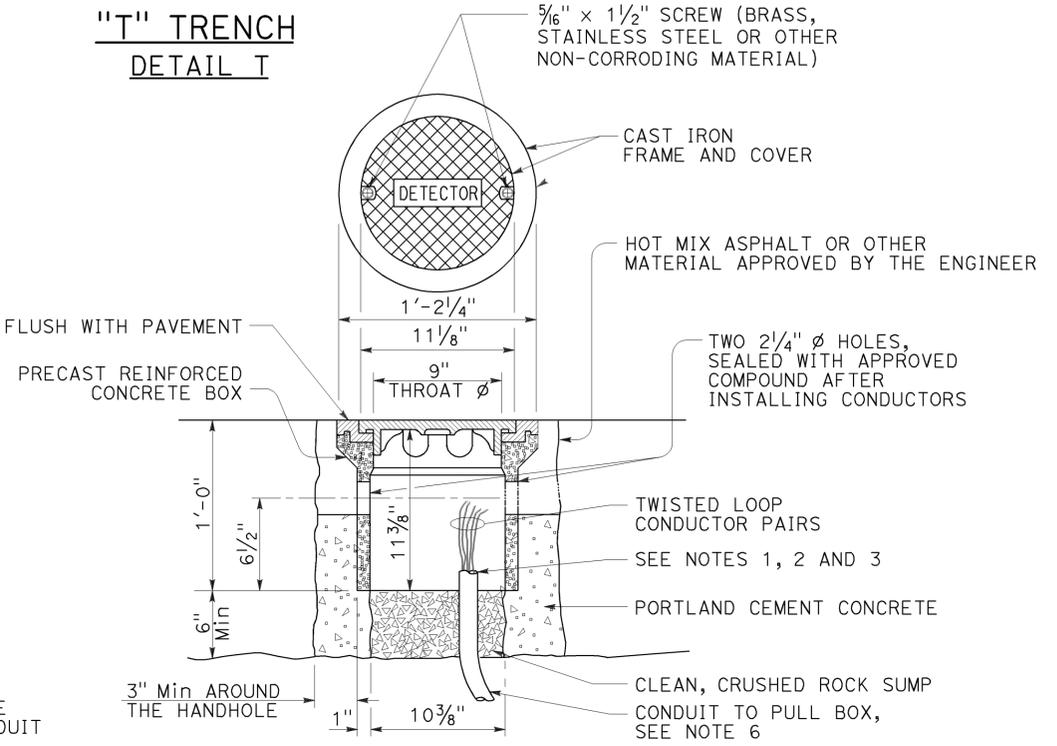


PLAN VIEW

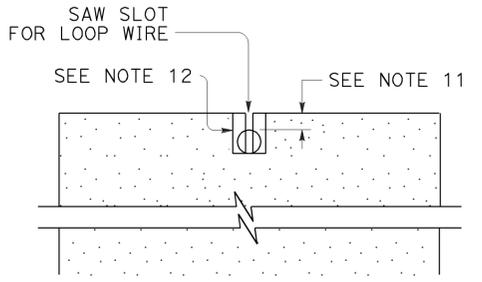


SECTION C-C

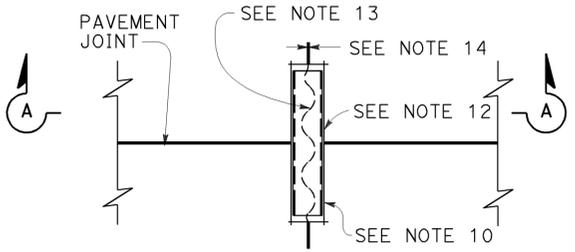
**TYPE B
CURB TERMINATION DETAIL**



DETECTOR HANDHOLE DETAIL

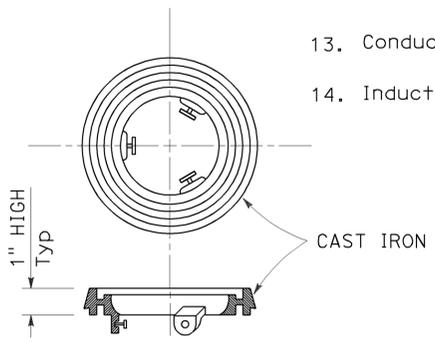


SECTION A-A



PLAN VIEW

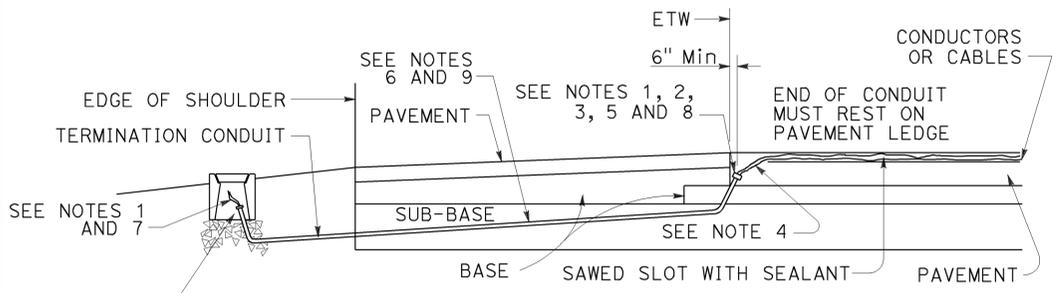
**TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT**



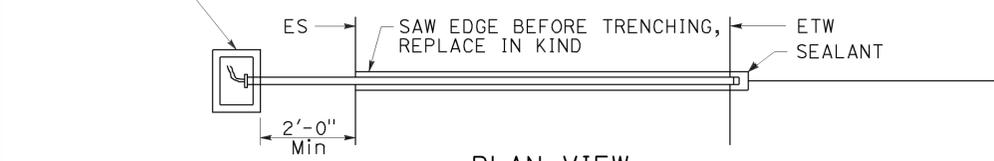
LOCKING GRADE RING

NOTES:

- Bushing shall be used at end of conduit.
- Tape detector conductors or cables 3" each side of bushings.
- Install duct seal compound to each end of termination conduit before installing sealant.
- Round all sharp edges where detector conductors or cables have to pass.
- End of conduit shall be 3/8" below roadway surface.
- | | |
|-----------------|-----------------|
| Conduit size | Loop conductors |
| 1"C minimum | 1 to 2 pairs |
| 1 1/2"C minimum | 3 to 4 pairs |
| 2"C minimum | 5 or more pairs |
- Splice detector conductors or cables to detector lead-in-cable.
- Location of detector handhole when shown on plans.
- When the shoulder and traveled way are paved with the same material and there is no joint between them, the conduit shall extend only 2'-0" into the shoulder pavement.
- 3/4"C, Type 3 conduit 6" long minimum, plug both ends with duct compound to keep out sealant.
- 1/2" Minimum between top of conduit and pavement surface.
- Sawcut shall not exceed 1" in width and 1/8" longer than conduit to be installed.
- Conductors with 1/2" minimum slack inside conduit.
- Inductive loop detector saw slot.



CROSS SECTION



PLAN VIEW

SHOULDER TERMINATION DETAILS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(CURB TERMINATION
AND HANDHOLE)**
NO SCALE

RSP ES-5D DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5D DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

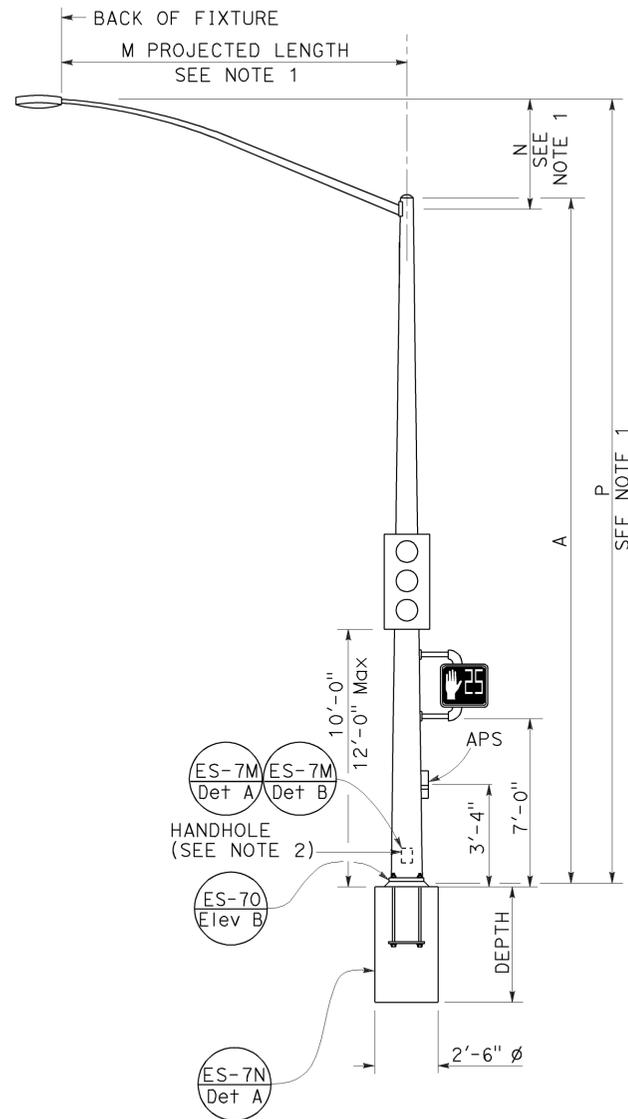
REVISED STANDARD PLAN RSP ES-5D

2010 REVISED STANDARD PLAN RSP ES-5D

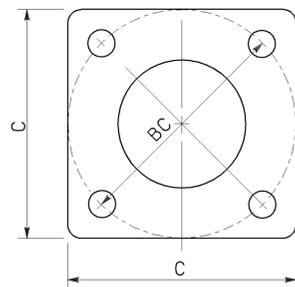
NOTES:

- For additional notes, details and data for Type 15TS and Type 21TS Standards, see Standard Plan ES-6A.
- Handhole shall be located on the downstream side of traffic.

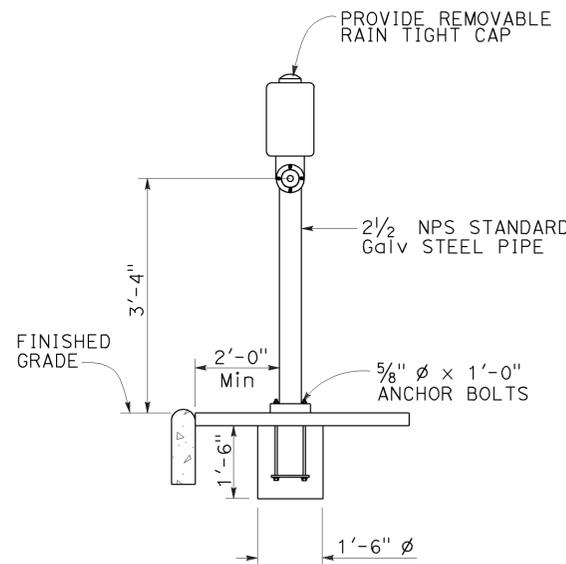
TO ACCOMPANY PLANS DATED 3-16-15



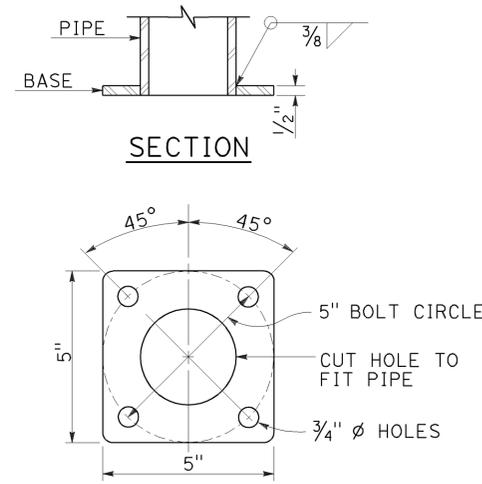
TYPE 15TS AND 21TS STANDARD
ELEVATION A
 (See Note 1)



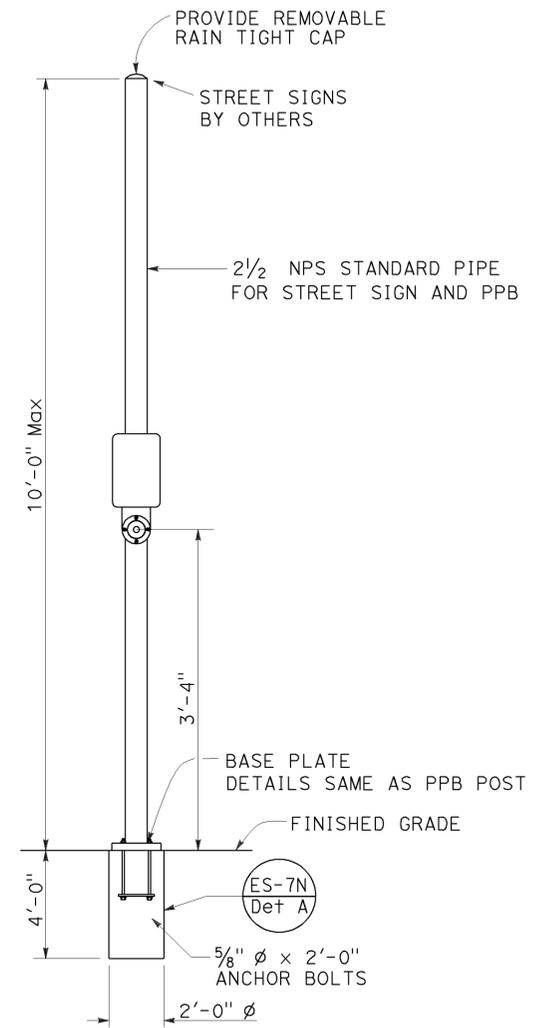
BASE PLATE
TYPE 15TS AND 21TS
DETAIL A



PUSH BUTTON ASSEMBLY POST
DETAIL B



BASE PLATE
PBA POST



COMBINED STREET SIGN
PUSH BUTTON ASSEMBLY POST
DETAIL C

POLE TYPE	POLE DATA			WALL THICKNESS	BASE PLATE DATA			CIDH DEPTH
	A HEIGHT	Min OD			C	BC = BOLT CIRCLE	THICKNESS	
15TS	30'-0"	8"	3 1/16"	0.1793"	1'-1 1/2"	1'-0"	1 1/2" ϕ x 42"	7'-6"
21TS	35'-0"	9 3/8"	3 3/16"		1'-3"	1'-2"		8'-6"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD, TYPE TS,
AND PUSH BUTTON ASSEMBLY POST)
 NO SCALE

RSP ES-7A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-7A DATED MAY 20, 2011 - PAGE 462 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-7A

2010 REVISED STANDARD PLAN RSP ES-7A

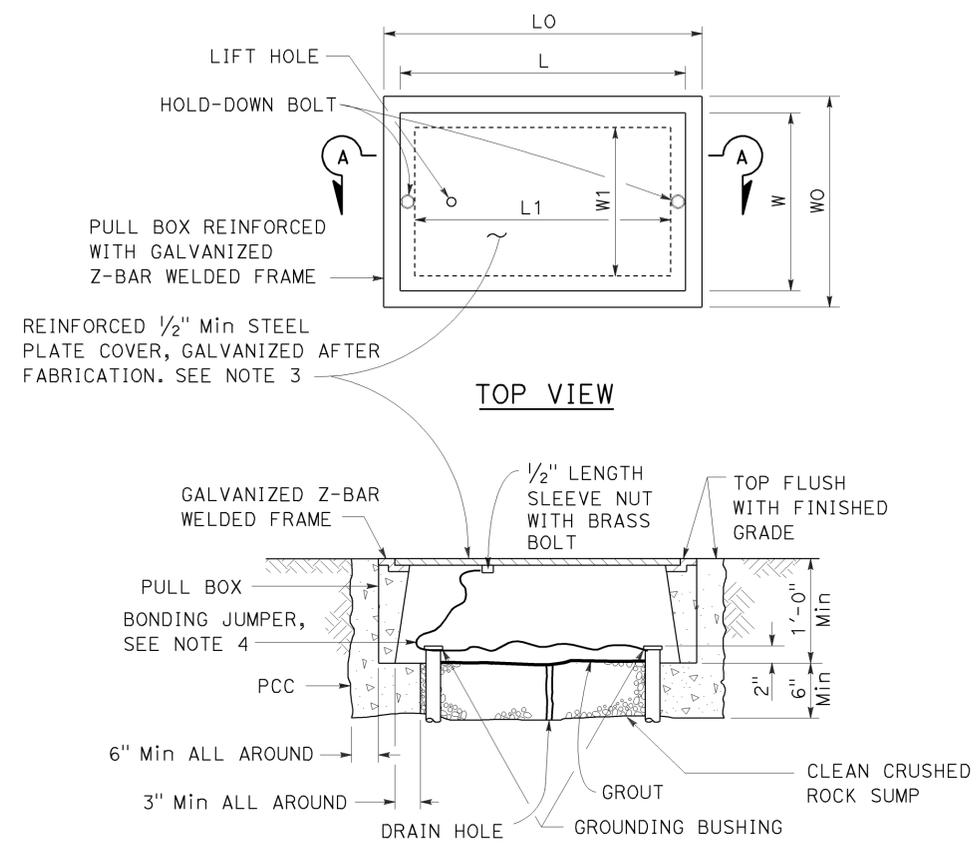
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Ama	49	4.0/7.0	80	80

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 3-16-15



SECTION A-A
No. 3 1/2(T), No. 5(T) AND
No. 6(T) TRAFFIC PULL BOX

NOTES:

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
 - No. 3 1/2(T) pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5(T) or 6(T) pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATION" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communications line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8".

DIMENSION TABLE											
PULL BOX	PULL BOX						COVER				
	MINIMUM * THICKNESS	MINIMUM DEPTH BOX AND EXTENSION	W0	L0	L1	W1	L **	W **	R	EDGE THICKNESS	EDGE TAPER
No. 3 1/2(T)	1 1/2"	1'-0"	1'-5"± 1"	1'-8 3/8"±	1'-2 1/2"±	10 5/8"± 1"	1'-8"±	1'-1 3/4"±	0"	1/2"	NONE
No. 5(T)	1 3/4"	1'-0"	1'-11 1/2"± 1"	2'-5 1/2"±	1'-7"±	1'-1"± 1"	2'-3"±	1'-4"±	0"	1/2"	NONE
No. 6(T)	2"	1'-0"	2'-6"± 1"	2'-11 1/2"±	1'-11 1/2"±	1'-5"± 1"	2'-9"±	1'-8"±	0"	1/2"	NONE

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(TRAFFIC PULL BOX)
 NO SCALE

RSP ES-8B DATED JULY 19, 2013 SUPERSEDES RSP ES-8B DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-8B

2010 REVISED STANDARD PLAN RSP ES-8B