

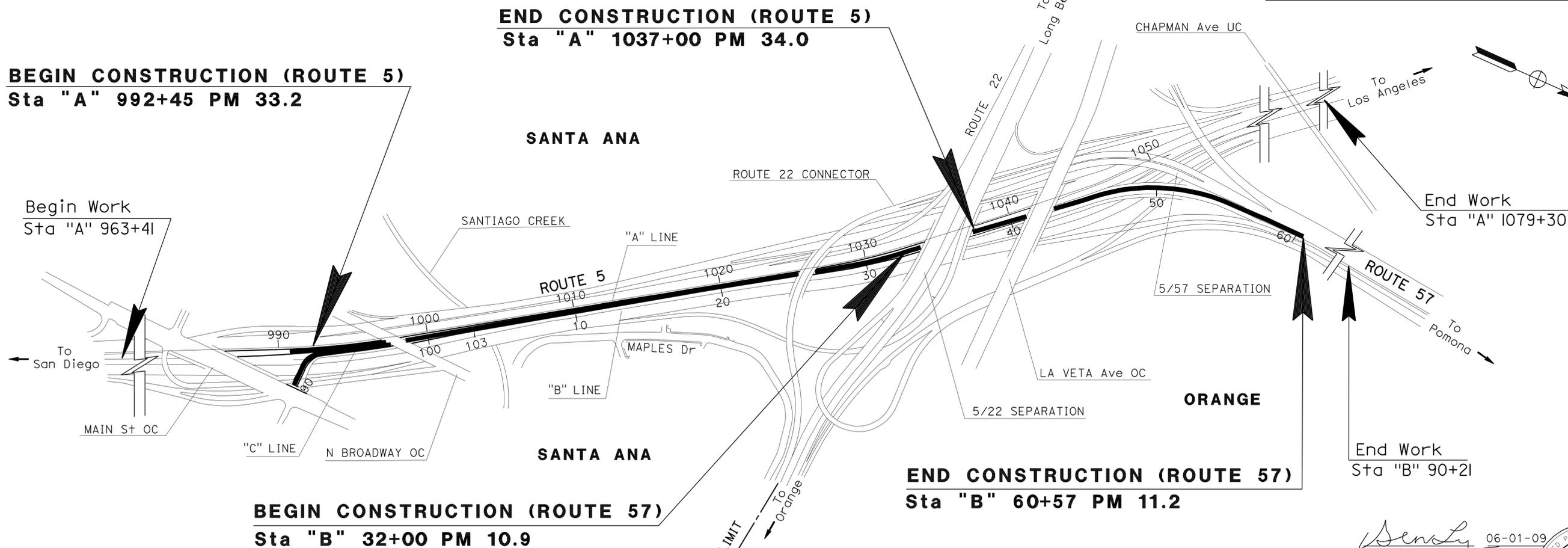
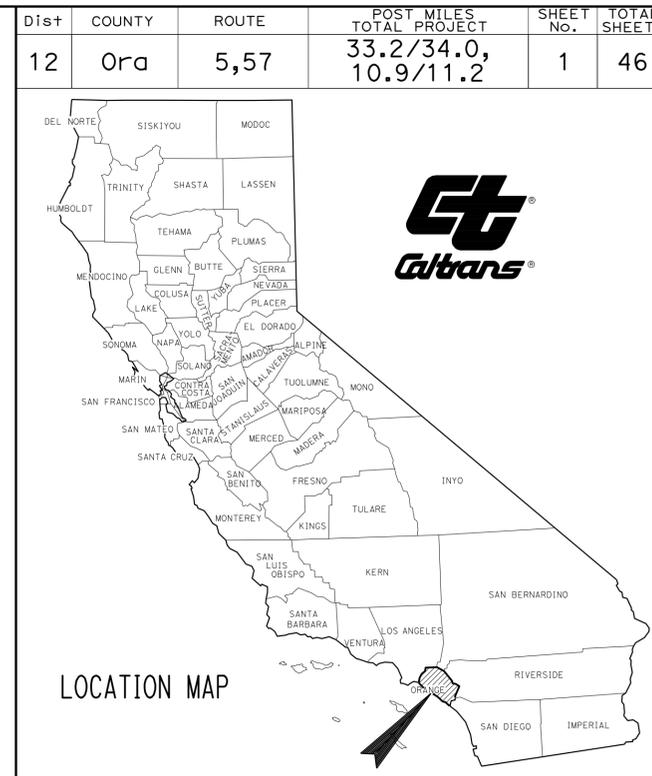
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LAYOUT
3-6	CONSTRUCTION DETAILS
7	EXISTING UTILITY PLAN
8	CONSTRUCTION AREA SIGNS
9-14	TRAFFIC HANDLING PLANS AND QUANTITIES
15-22	PAVEMENT DELINEATION AND SIGN PLANS AND PAVEMENT DELINEATION DETAILS AND QUANTITIES
23-26	SIGN DETAILS AND QUANTITIES
27	SUMMARY OF QUANTITIES
28-32	ELECTRICAL PLANS
33-46	REVISED AND NEW STANDARD PLANS

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

STATE OF CALIFORNIA **ACHSNHG-X059(050)E**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN ORANGE COUNTY
IN SANTA ANA AND ORANGE
ON ROUTE 5 FROM MAIN STREET OVERCROSSING TO
ROUTE 57 SEPARATION AND ON ROUTE 57 FROM
ROUTE 5 SEPARATION TO 0.7 MILE SOUTH
OF CHAPMAN AVENUE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER
MIKE VARIPAPA

DESIGN ENGINEER
BEN LY

PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER
 DATE 06-01-09
 July 13, 2009
 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."

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	2	46

06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 BEN LY
 No. C33278
 Exp. 06-30-10
 CIVIL
 STATE OF CALIFORNIA

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 COPIES OF THIS PLAN SHEET.

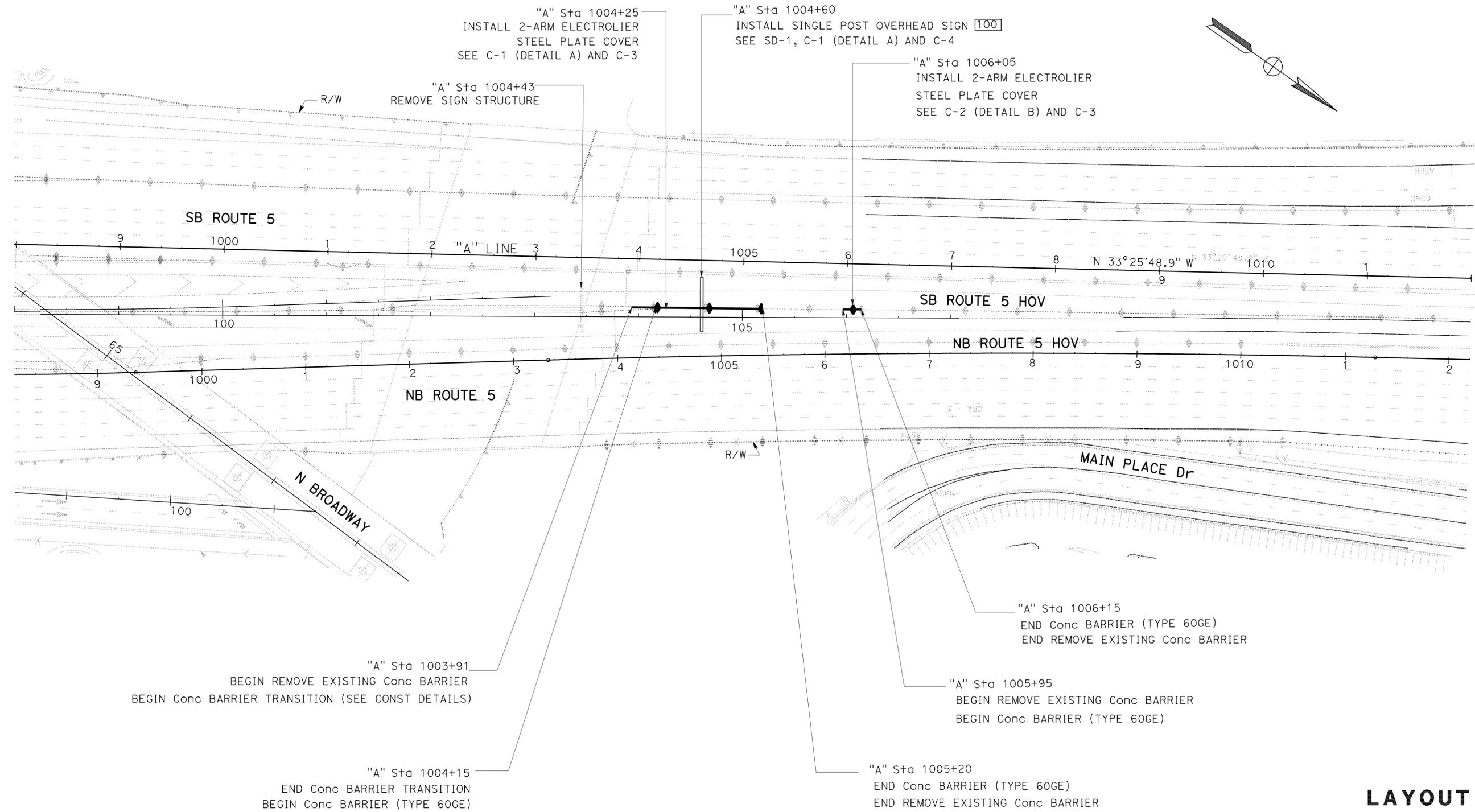
NOTES:

- FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON PORTIONS OF THESE PLANS.

ABBREVIATIONS:

HOV HIGH OCCUPANCY VEHICLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
 FUNCTIONAL SUPERVISOR ADEL MALEK
 CALCULATED-DESIGNED BY CHECKED BY
 BERNADETTE SURAWEEERA BEN LY
 REVISED BY DATE REVISED



LAYOUT
SCALE: 1"=50' **L-1**

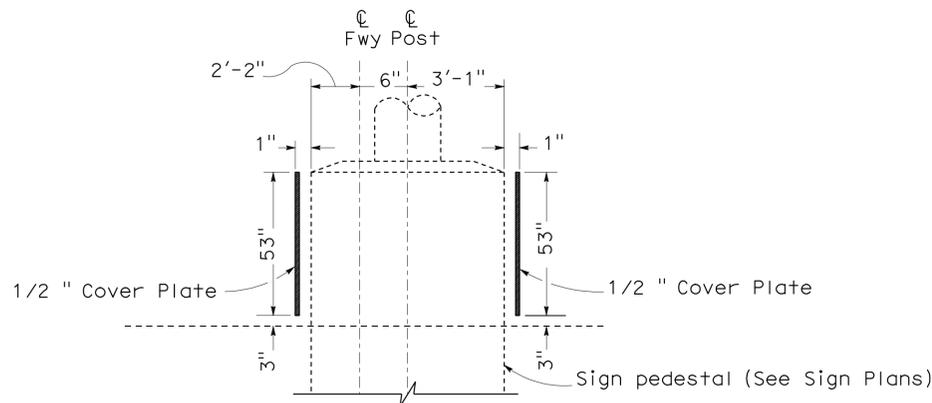
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

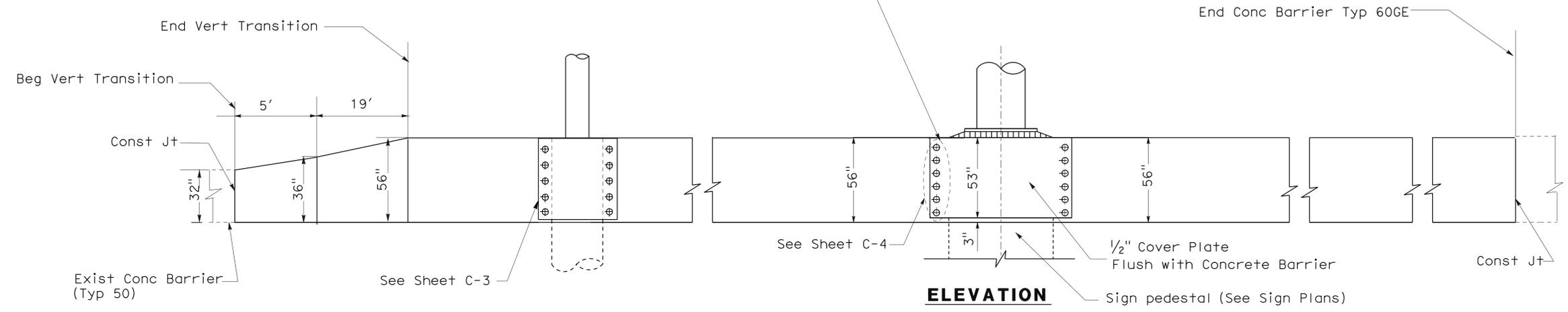
REGISTERED PROFESSIONAL ENGINEER
 BEN LY
 No. C33278
 Exp. 06-30-10
 CIVIL
 STATE OF CALIFORNIA

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.

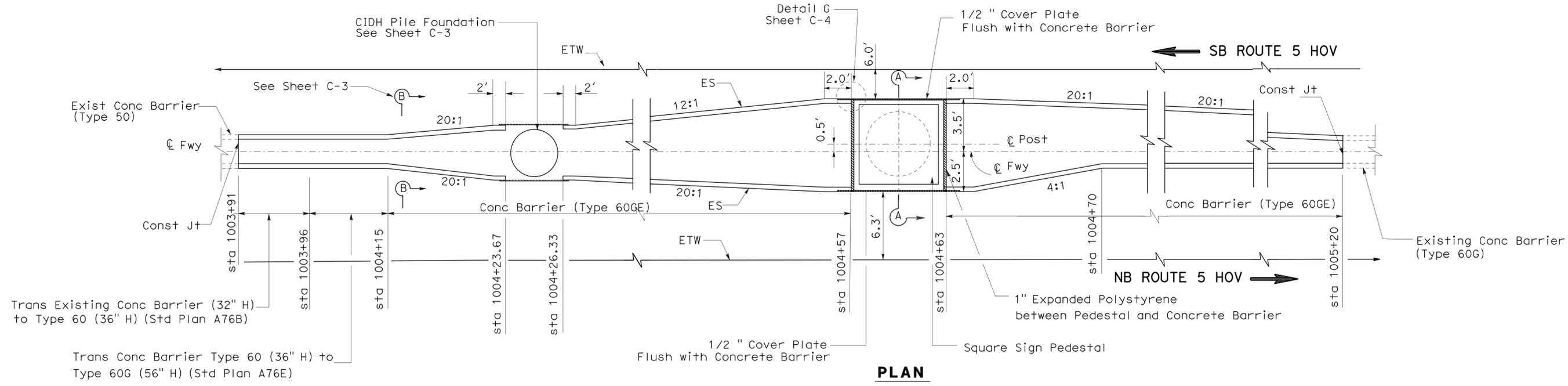


SECTION A-A

5/8" ϕ Sleeve Nut Anchorage
 or Resin Capsule Anchorage (See Sheet C-4 Sheet, Alternative Anchorage)
 A Total of 12 Anchorage Units Required Per Plate
 All Metal Plates to be Galvanized after Fabrication
 Hardware to be Galvanized or Non-Corrosive.



ELEVATION



PLAN

DETAIL A

**CONSTRUCTION DETAILS
 (CONCRETE BARRIER AT
 SIGN PEDESTAL AND ELECTROLIER)**

NOTES:

- SEE SHEET SD-1 FOR OVERHEAD SIGN PEDESTAL DETAILS.
- REINFORCING STEEL SHALL EXTEND THROUGH CONSTRUCTION JOINT.

NO SCALE

C-1

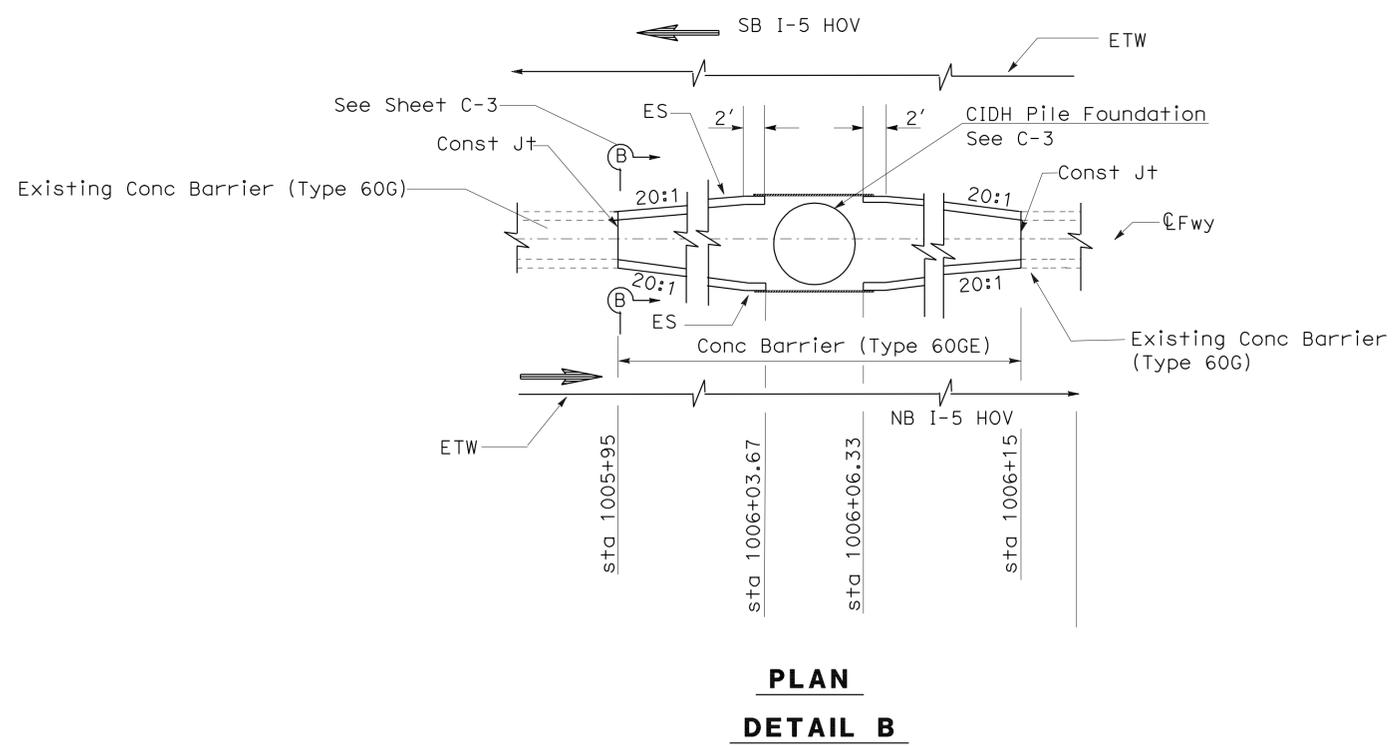
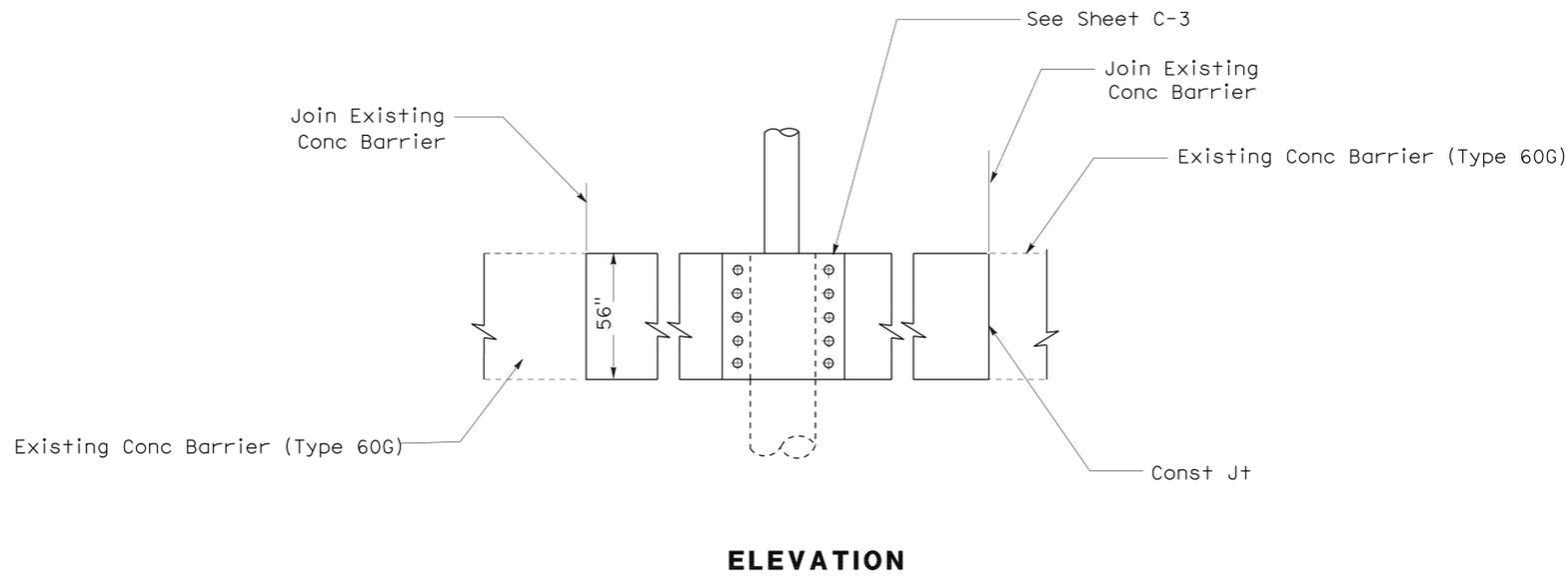
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 ADEL MALEK
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 BEN LY
 REVISOR
 BERNADETTE SURAWEEA
 DATE REVISOR
 DATE REVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	4	46

Ben Ly 06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BEN LY
 No. C33278
 Exp. 06-30-10
 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.



NOTE:
REINFORCING STEEL SHALL EXTEND THROUGH CONSTRUCTION JOINT.

**CONSTRUCTION DETAILS
(CONCRETE BARRIER AT ELECTROLIER)**

NO SCALE **C-2**

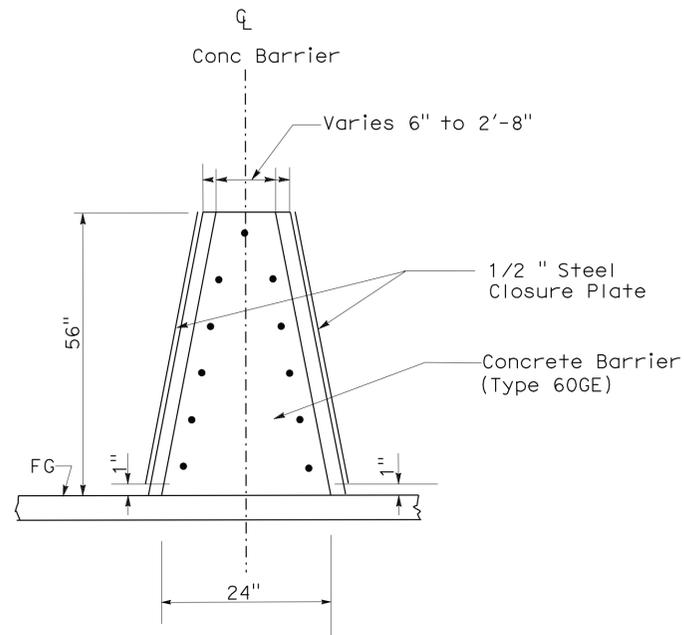
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 ADEL MALEK
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 BERNADETTE SURAWEEERA
 REVISOR
 BEN LY
 DATE REVISOR
 DATE REVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	5	46

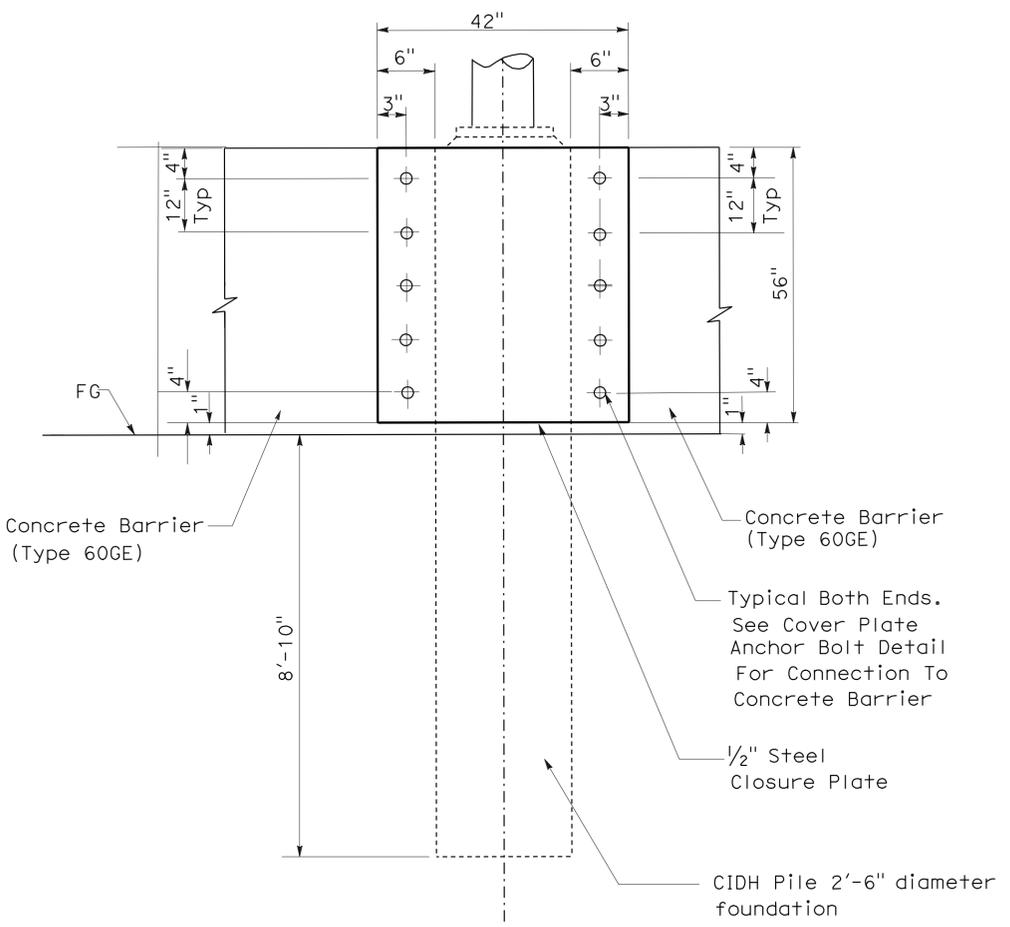
<i>Benny</i>	06-01-09
REGISTERED CIVIL ENGINEER	DATE
7-13-09	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
BEN LY
No. C33278
Exp. 06-30-10
CIVIL
STATE OF CALIFORNIA

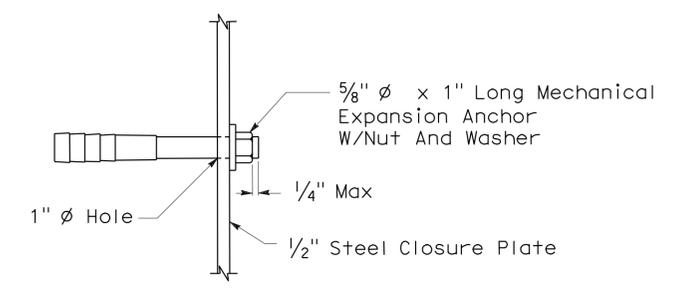
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SECTION B-B
(See Sheet C-1 and C-2)



STEEL PLATE COVER (ELEVATION)



COVER PLATE ANCHOR BOLT DETAIL

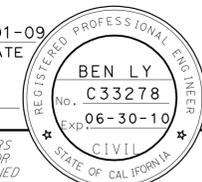
NOTE:
FOR CONCRETE BARRIER DETAILS NOT SHOWN, SEE STANDARD PLANS.

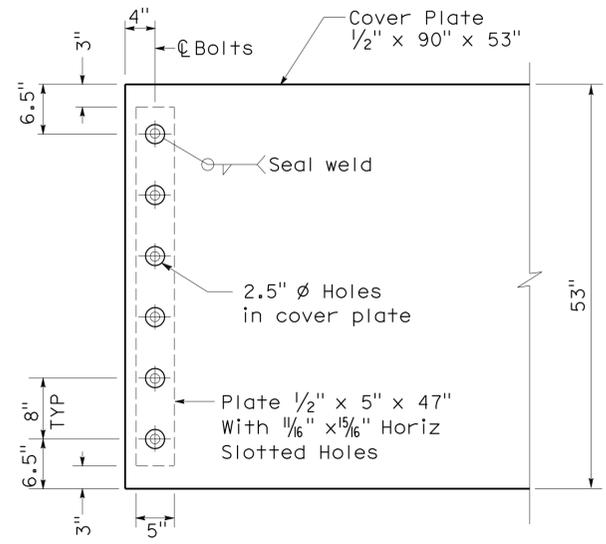
**CONSTRUCTION DETAILS
(CIDH PILE FOUNDATION FOR ELECTROLIER)**

NO SCALE

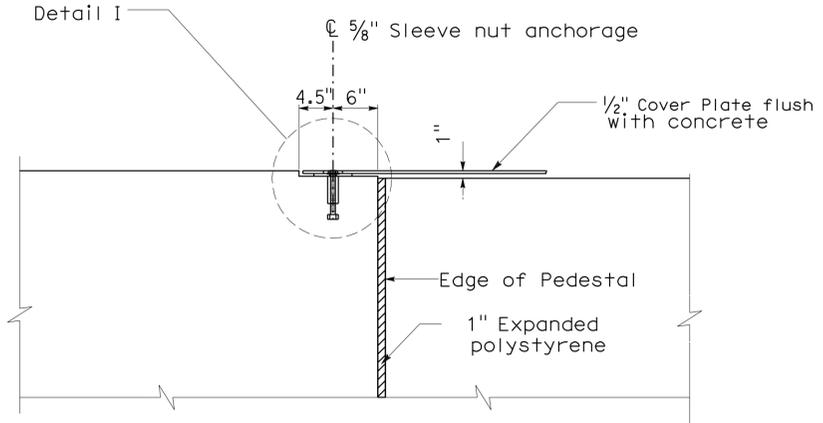
C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
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 ADEL MALEK
 BERNADETTE SURAWEEERA
 BEN LY
 REVISIONS:
 REVISION NO. DATE REVISION BY DATE REVISOR BY

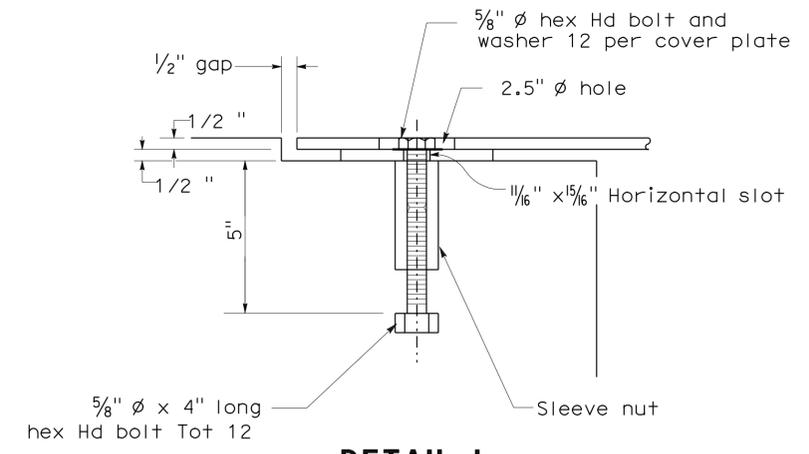
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	6	46
 REGISTERED CIVIL ENGINEER			06-01-09 DATE		
7-13-09 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



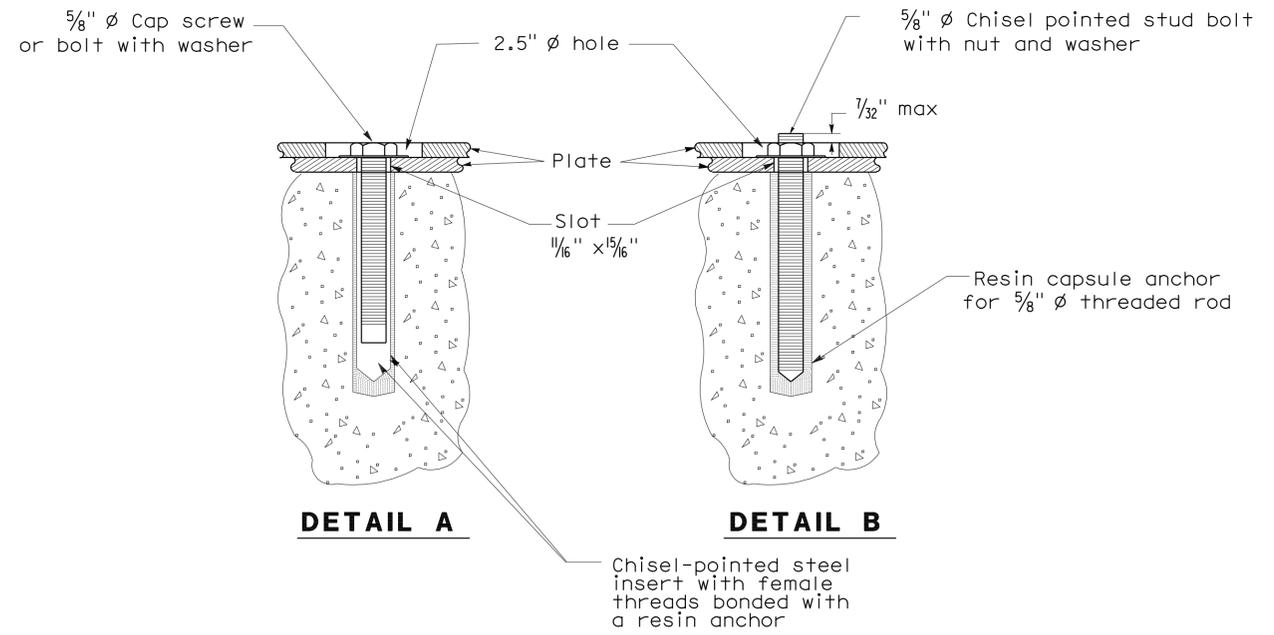
DETAIL F



DETAIL G



DETAIL I



ALTERNATIVE ANCHORAGE

SEE NOTES 1 & 2

NOTES:

1. Resin capsule anchorage is subjected to approval of the Engineer. Installation procedures shall comply with manufacturer's instructions.
2. Detail B similar to Detail A except for anchorage devices.
3. The Contractor shall verify all controlled field dimensions before ordering or fabricating any materials.

CONSTRUCTION DETAILS

NO SCALE

C-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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 FUNCTIONAL SUPERVISOR
 ADEL MALEK
 CALCULATED-DESIGNED BY
 CHECKED BY
 BERNADETTE SURAWEEERA
 BEN LY
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	7	46

06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 BEN LY
 No. C33278
 Exp. 06-30-10
 CIVIL
 STATE OF CALIFORNIA

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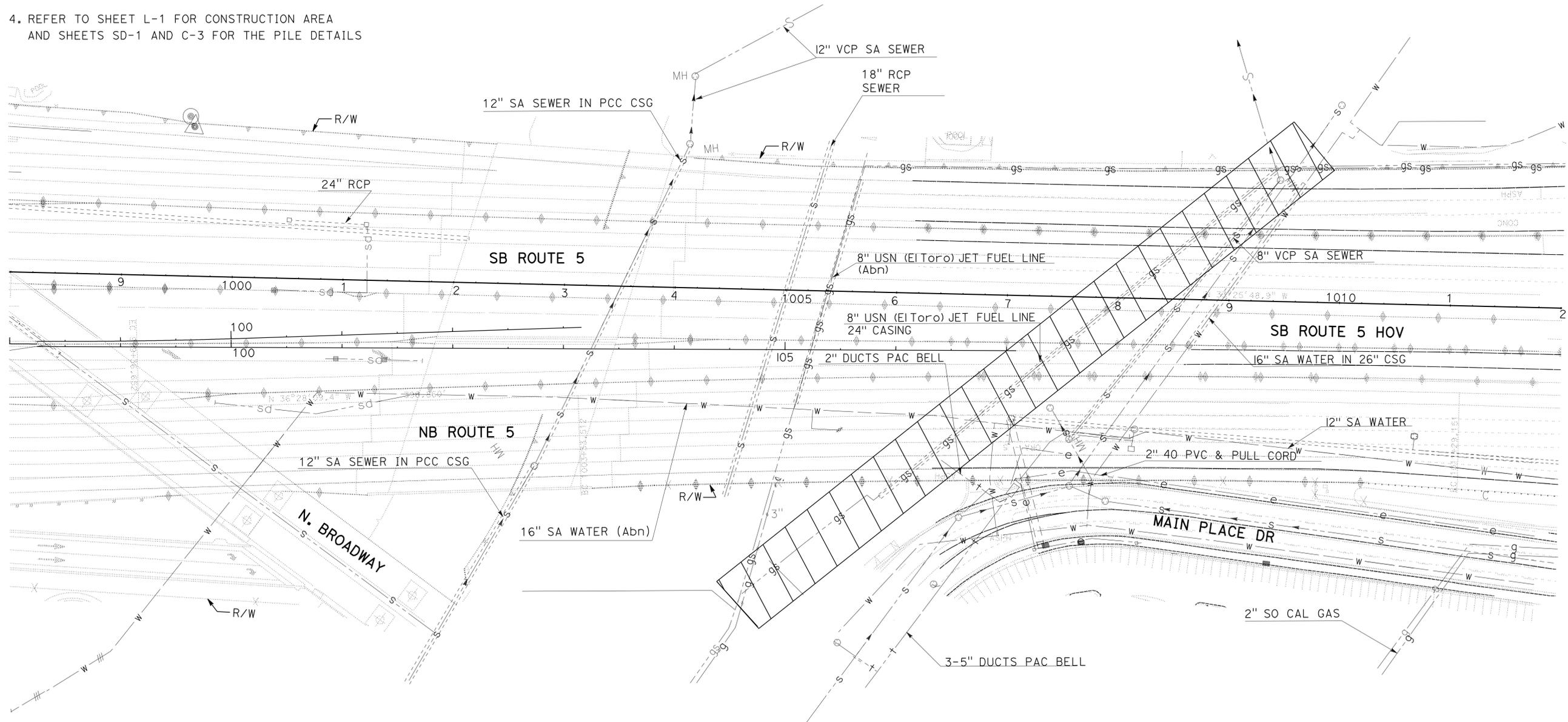
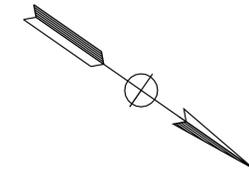
- LOCATIONS OF UTILITY FACILITIES ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION
- UTILITY OWNERSHIP ON THIS PROJECT:
 GAS - SOUTHERN CALIFORNIA GAS
 WATER - CITY OF SANTA ANA
 SEWER - CITY OF SANTA ANA
 ELECTRIC - SOUTHERN CALIFORNIA EDISON
 TELEPHONE - PACBELL
 JET FUEL - UNITED STATES NAVY
- MAINTAIN A MINIMUM 10' HORIZONTAL CLEARANCE BETWEEN THE PILES AND THE EXISTING SEWER AND STORM DRAINS
- REFER TO SHEET L-1 FOR CONSTRUCTION AREA AND SHEETS SD-1 AND C-3 FOR THE PILE DETAILS

LEGEND:

 NO DRILLING TO BE PERFORMED IN THIS AREA UNTIL WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER

ABBREVIATIONS:

SA CITY OF SANTA ANA
 SO CAL SOUTHERN CALIFORNIA
 PAC PACIFIC
 USN UNITED STATES NAVY
 CSG CASING

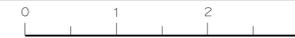


EXISTING UTILITY PLAN

NO SCALE **U-1**

THIS PLAN ACCURATE FOR UTILITY INFORMATION WORK ONLY

RELATIVE BORDER SCALE IS IN INCHES



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CU12368

EA 0H5501

BORDER LAST REVISED 4/11/2008

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ADEL MALEK
CALCULATED-DESIGNED BY	CHECKED BY
BERNADETTE SURAWEEERA	BEN LY
REVISED BY	DATE REVISED



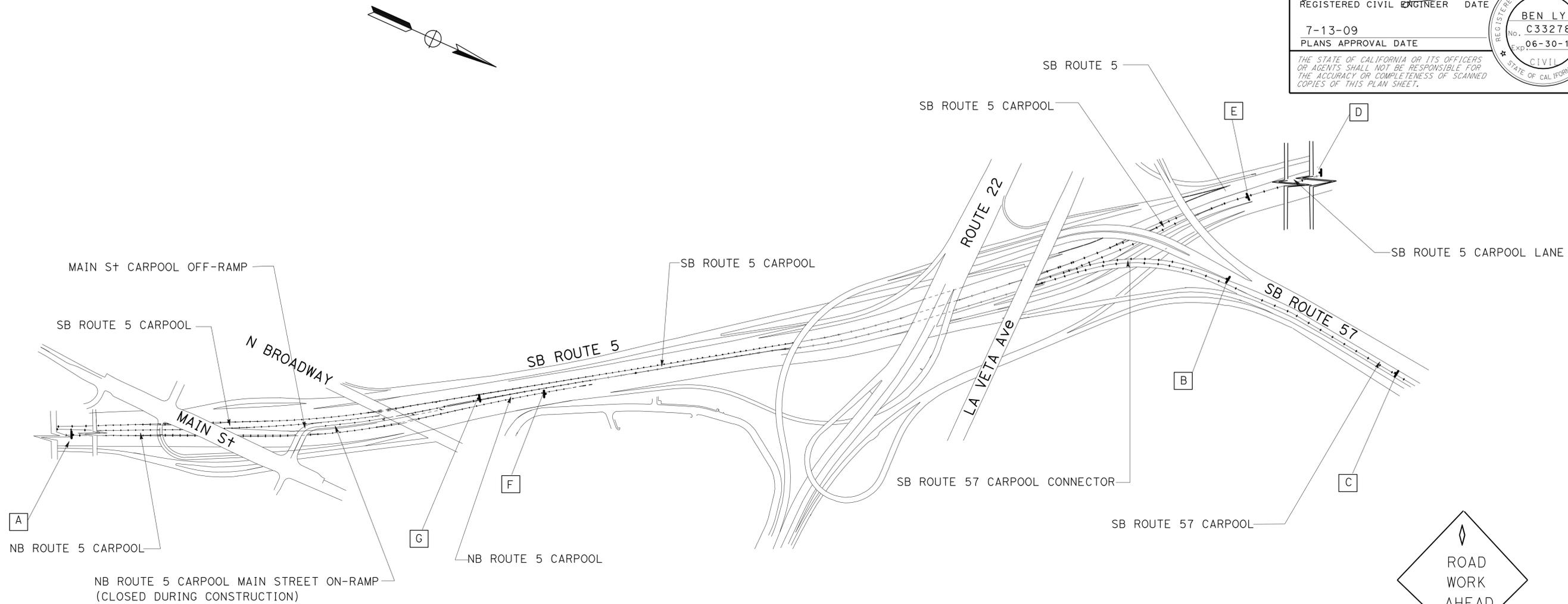
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 06-01-09
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Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	8	46

06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 BEN LY
 No. C33278
 Exp. 06-30-10
 CIVIL
 STATE OF CALIFORNIA

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CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE	STATION	TYPE 1 BARRICADE MOUNTED SIGNS	BARRIER MOUNTED SIGNS	REMARKS
					EA	EA	
A	W20-1MOD	35" x 35"	ROAD WORK AHEAD	"A" 963+00		1 (S)	FACING NB I-5 HOV RAMP TRAFFIC
B	W20-1MOD	35" x 35"	ROAD WORK AHEAD			1 (S)	FACING SB 57 HOV CONNECTOR TRAFFIC (AT THE BEGINNING)
C	W20-1MOD	35" x 35"	ROAD WORK AHEAD			1 (S)	FACING SB 57 HOV LANE TRAFFIC (BEFORE THE LAST INGRESS-EGRESS)
D	W20-1MOD	35" x 35"	ROAD WORK AHEAD		1		FACING SB 1-5 HOV LANE TRAFFIC (BEFORE THE LAST INGRESS-EGRESS)
E	W20-1MOD	35" x 35"	ROAD WORK AHEAD		1		FACING SB I-5 HOV RAMP TRAFFIC (AT THE BEGINNING)
F	G20-2	35" x 18"	END ROAD WORK	"A" 1006+35		1 (S)	FACING NB I-5 HOV RAMP TRAFFIC
G	G20-2	35" x 18"	END ROAD WORK	"A" 1003+65		1 (S)	FACING SB I-5 HOV RAMP TRAFFIC

(S) DENOTES STATIONARY MOUNTED SIGN

NOTES:

- SIGN LOCATIONS ARE APPROXIMATE. THE EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.
- FOR ADDITIONAL CONSTRUCTION AREA SIGNS SEE SHEET THD-1.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON PORTIONS OF THESE PLANS.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN IS ACCURATE FOR CONSTRUCTION AREA SIGNS ONLY

RELATIVE BORDER SCALE IS IN INCHES



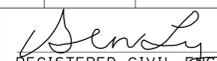
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EA 0H5501

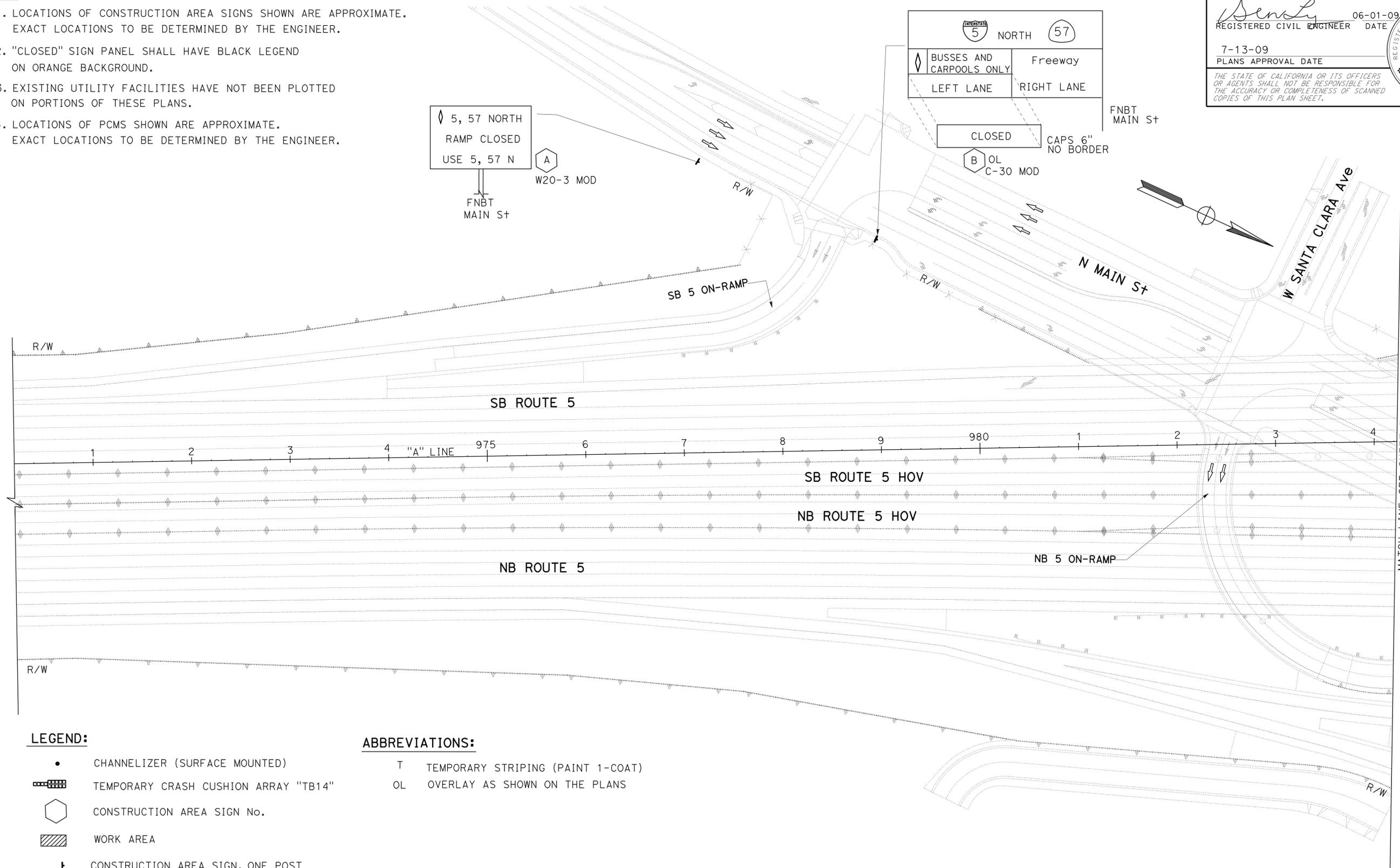
BORDER LAST REVISED 4/11/2008

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 ADEL MALEK
 BEN LY
 BERNADETTE SURAWEEERA
 REVISOR BY DATE
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 LAST REVISION DATE PLOTTED => 29-06-2009
 TIME PLOTTED => 06:59

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	9	46
			06-01-09	DATE	
REGISTERED CIVIL ENGINEER					
7-13-09			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
					

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. "CLOSED" SIGN PANEL SHALL HAVE BLACK LEGEND ON ORANGE BACKGROUND.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON PORTIONS OF THESE PLANS.
4. LOCATIONS OF PCMS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



LEGEND:

- CHANNELIZER (SURFACE MOUNTED)
-  TEMPORARY CRASH CUSHION ARRAY "TB14"
-  CONSTRUCTION AREA SIGN No.
-  WORK AREA
-  CONSTRUCTION AREA SIGN, ONE POST
-  PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
-  TRAFFIC DIRECTION
-  TEMPORARY PAVEMENT DELINEATION DETAIL

ABBREVIATIONS:

- T TEMPORARY STRIPING (PAINT 1-COAT)
- OL OVERLAY AS SHOWN ON THE PLANS

TRAFFIC HANDLING PLAN

SCALE: 1"=50'

TH-1

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY



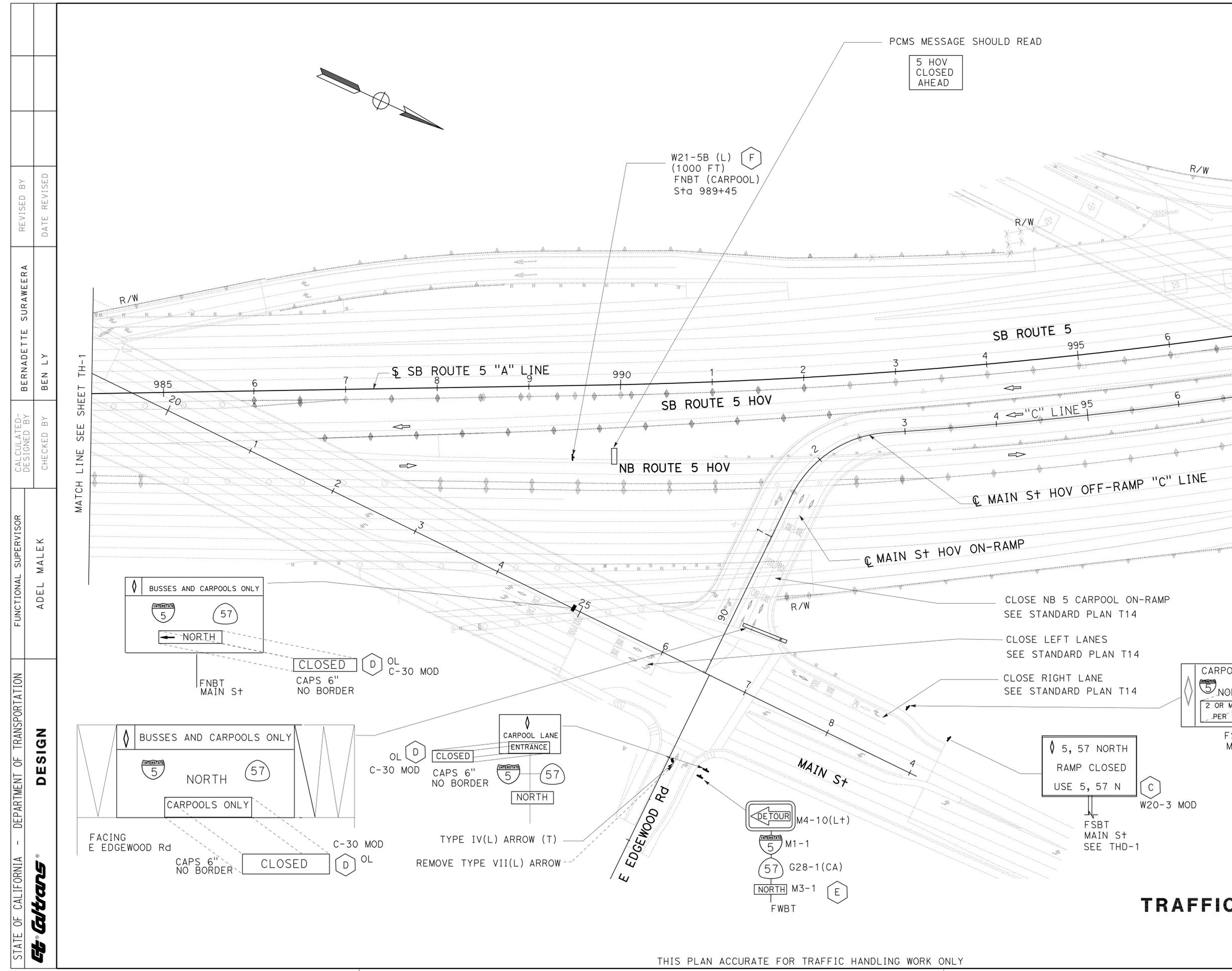
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DESIGN
 FUNCTIONAL SUPERVISOR: ADEL MALEK
 CALCULATED-DESIGNED BY: BERNADETTE SURAWEEERA
 CHECKED BY: BEN LY
 REVISED BY: BERNADETTE SURAWEEERA
 DATE REVISED:

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	10	46

06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

BENA LY
 No. C33278
 Exp. 06-30-10
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 DESIGN
 FUNCTIONAL SUPERVISOR ADEL MALEK
 CALCULATED/DESIGNED BY CHECKED BY BENA LY
 REVISIONS: SURAWEEA, BENA LY, MALEK

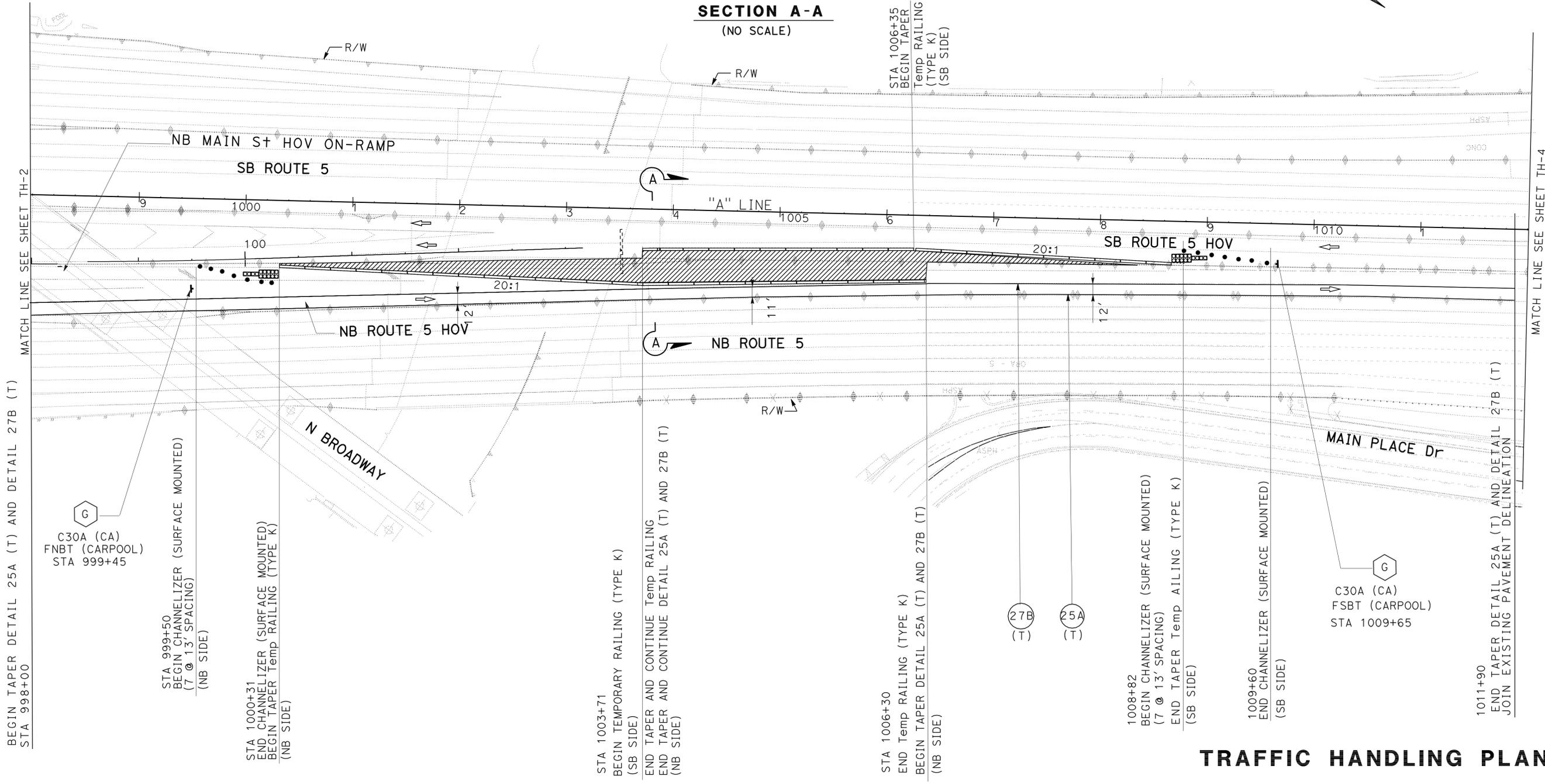
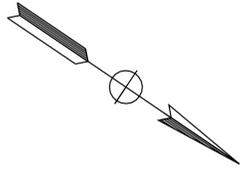
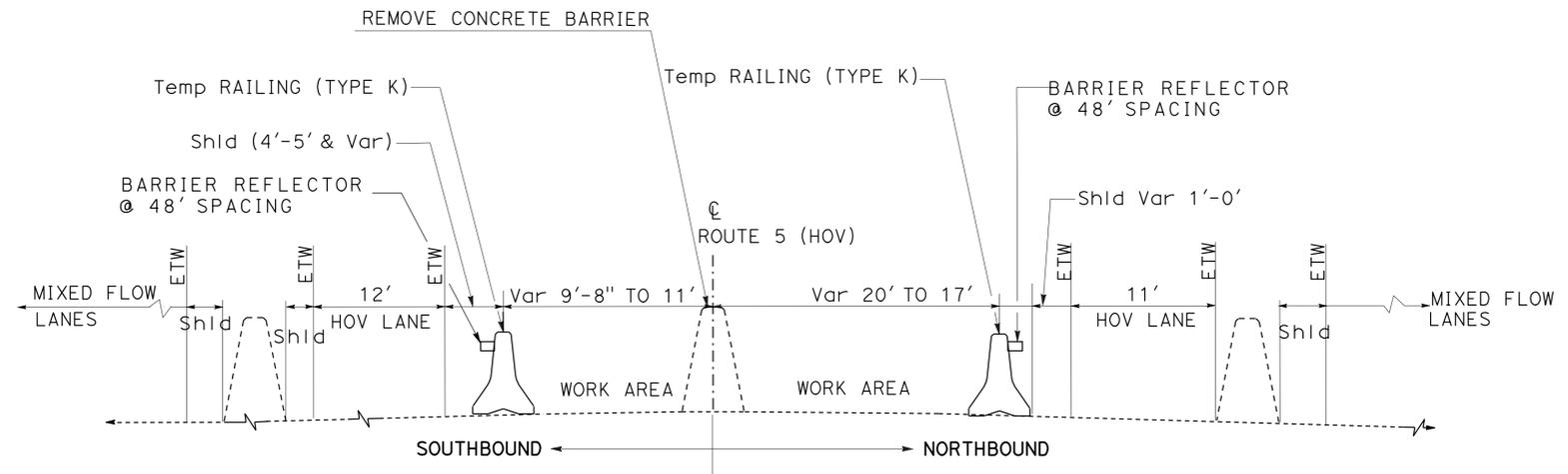
TRAFFIC HANDLING PLAN

SCALE: 1"=50'

TH-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	CHECKED BY	REVISOR	DATE
Caltrans		ADEL MALEK	BEN LY	BERNADETTE SURAWEEERA	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	11	46
			06-01-09	REGISTERED CIVIL ENGINEER DATE	
			7-13-09	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 BEN LY No. C33278 Exp. 06-30-10 CIVIL STATE OF CALIFORNIA					

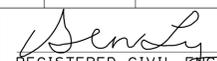
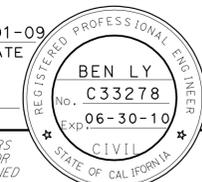


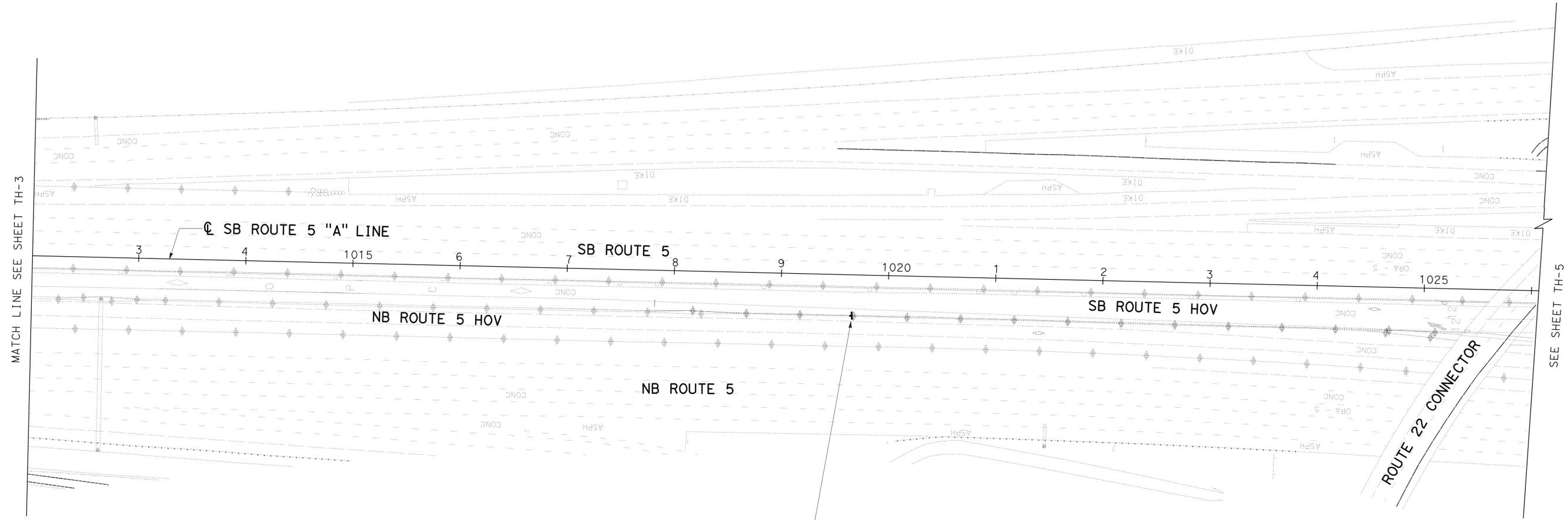
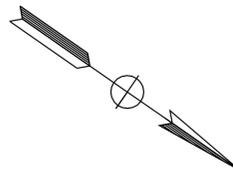
TRAFFIC HANDLING PLAN

SCALE: 1"=50'

TH-3

THIS PLAN IS ACCURATE FOR TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	12	46
 REGISTERED CIVIL ENGINEER			06-01-09 DATE		
7-13-09 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>					



H
 W21-5B (L)
 (1000 FT)
 FSBT (CARPOOL)
 STA 1019+65

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
Caltrans	ADEL MALEK	CHECKED BY	DATE REVISOR
DESIGN	BEN LY	BERNADETTE SURAWEEERA	

TRAFFIC HANDLING PLAN

SCALE: 1"=50'

TH-4

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY



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 DGN FILE => c0h550md004.dgn

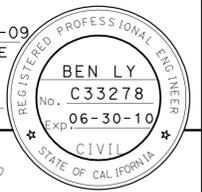
CU12368

EA 0H5501

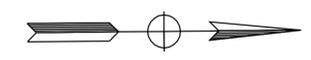
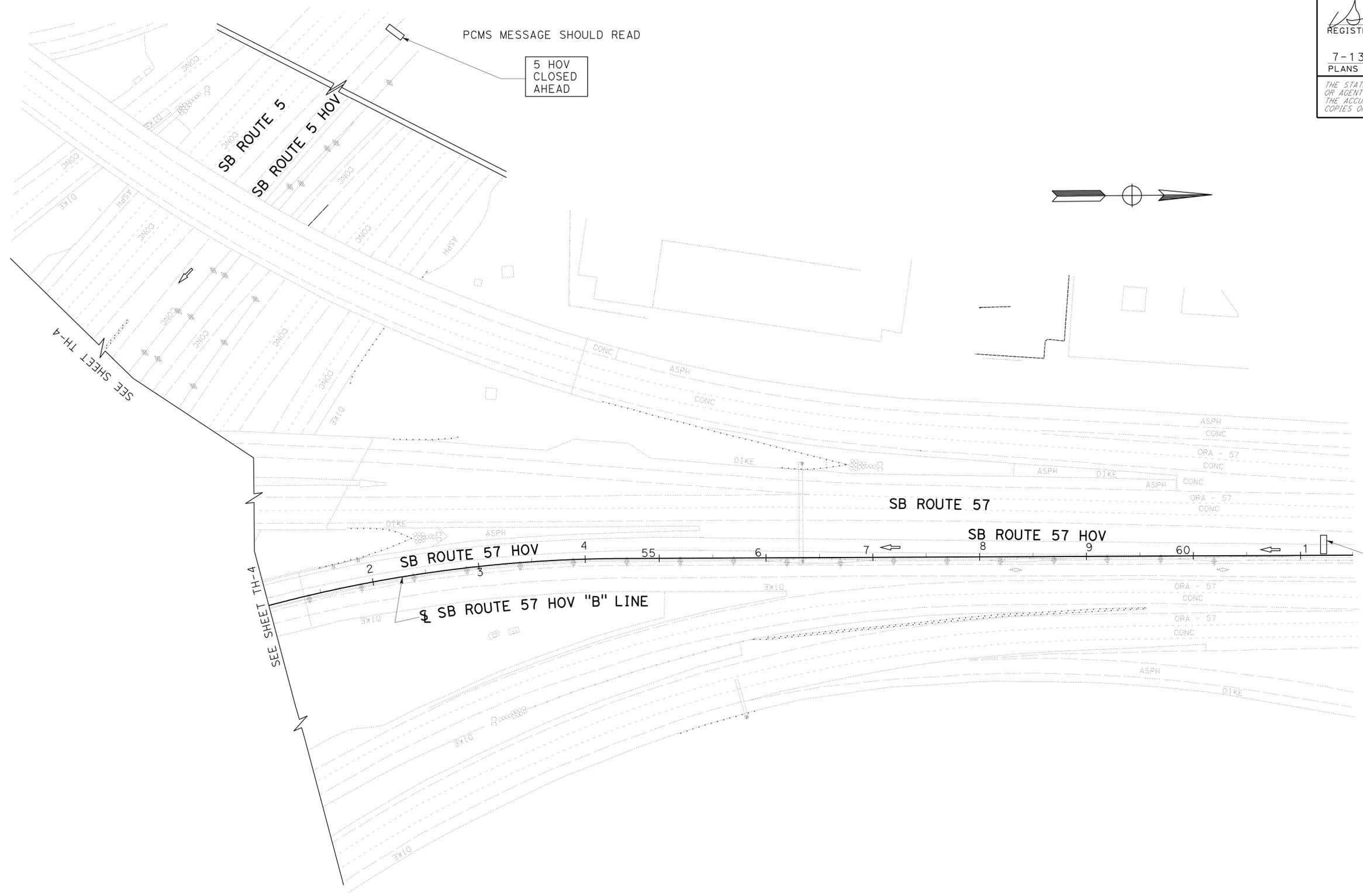
BORDER LAST REVISED 4/11/2008

LAST REVISION | DATE PLOTTED => 29-OCT-2009
 05-26-09 | TIME PLOTTED => 06:59

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	13	46
			06-01-09		
REGISTERED CIVIL ENGINEER			DATE		
7-13-09			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.					



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ADEL MALEK
CALCULATED-DESIGNED BY	CHECKED BY
BERNADETTE SURAWEEERA	BEN LY
REVISED BY	DATE REVISED



TRAFFIC HANDLING PLAN

SCALE: 1"=50'

TH-5

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY



USERNAME => trmikesi
DGN FILE => c0h550md005.dgn

CU12368

EA 0H5501

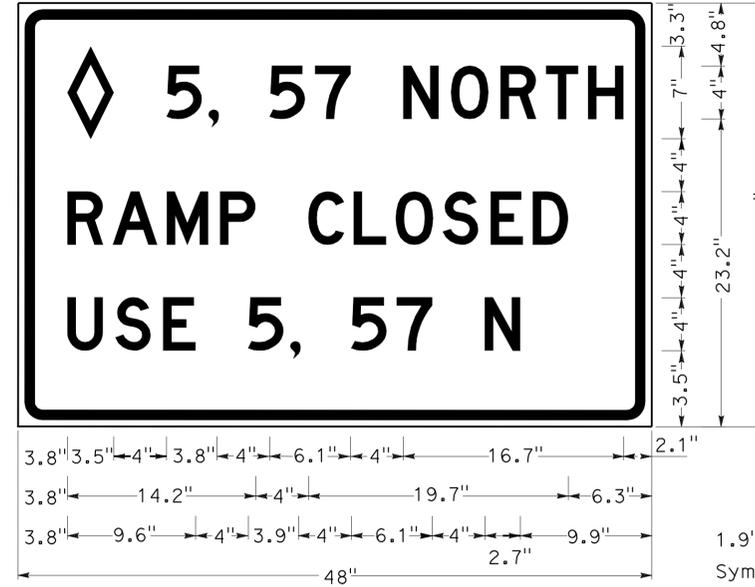
BORDER LAST REVISED 4/11/2008

LAST REVISION | DATE PLOTTED => 29-OCT-2009
05-28-09 TIME PLOTTED => 06:59

TRAFFIC HANDLING QUANTITIES

SHEET No.	"ALIGNMENT" STATION LIMITS	Temp RAILING (TYPE K)	Temp CRASH CUSHION (ARRAY 'TB14')	CHANNALIZERS (SURFACE MIONUTED)	TEMPORARY PAVEMENT MARKING (PAINT)	TEMPORARY TRAFFIC STRIPE		TEMPORARY PAVEMENT MARKER (RETROREFLECTIVE TYPE H)	CONCRETE * BARRIER REFLECTOR
		LF	EA	EA	SOFT	4" SOLID YELLOW 25A LF	4" SOLID WHITE 27B LF		
TH-2	E EDGEWOOD Rd				15				
TH-3	"A" STA 999+50 TO 1006+30 (NB)	599	14	7					14
	"A" STA 1003+71 TO 1009+60 (SB)	515	14	7					12
TH-3	"A" STA 998+00 TO 1011+90 (NB ROUTE 5 HOV)					1390	1390	59	
TOTAL		1114	28	14	15	2780		59	26

* NOT A PAY ITEM. ONLY FOR INFORMATION.



W20-3 MOD
SIGN (A)
FNBT MAIN St,
SIGN (C)
FSBT MAIN St

1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange;
Symbol RG005 White; [5, 57] White D;
[NORTH] White D; [RAMP CLOSED] White D;
[USE 5, 57 N] White D; [] White E;

NOTE:

FOR ADDITIONAL CONSTRUCTION AREA SIGNS SEE SHEET CS-1

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

PCMS	No. OF SIGNS
PCMS (SEE TH-2 & TH-5)	3

CONSTRUCTION AREA SIGNS

SHEET No.	SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE (IN X IN)	POST SIZE (SINGLE) (IN X IN)	NUMBER OF SIGNS (EA)	REMARKS	
TH-1	A	W20-3 MOD	SEE TH-1	48X30	4x6	1	FINISHED PAVEMENT TO THE BOTTOM OF THE SIGN PANEL IS 8 FT	
	B	C-30 MOD	CLOSED	VAR		1	OVERLAY AS SHOWN TO COVER THE WHOLE PANEL	
TH-2	C	W20-3 MOD	SEE TH-2	48X30	4x6	1	FINISHED PAVEMENT TO THE BOTTOM OF THE SIGN PANEL IS 8 FT	
	D	C-30 MOD	CLOSED	VAR		4	OVERLAY AS SHOWN TO COVER THE WHOLE PANEL	
	E	M4-10 (L+)		LEFT ARROW (DETOUR)	48x18	4x6	1	
		M1-1		RTE 5 INTERSTATE SHIELD	11.5x10		1	
		G28-1 (CA)		RTE 57 CALIFORNIA SHIELD	11.5x10		1	
		M3-1		NORTH	16x11		1	
F	W21-5B (L)		LEFT SHOULDER CLOSED 1000 FT	36x36		1	TYPE 1 BARRICADE MOUNTED	
TH-3	G	C30A (CA)	SHOULDER CLOSED	30x30		2 (S)	BARRIER MOUNTED	
TH-4	H	W21-5B (L)	LEFT SHOULDER CLOSED 1000 FT	36x36		1 (S)	BARRIER MOUNTED	

(S) DENOTES STATIONARY MOUNTED SIGN

TRAFFIC HANDLING QUANTITIES

NO SCALE

THD-1

CU12368

EA 0H5501

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

RELATIVE BORDER SCALE IS IN INCHES



USERNAME => trmikesi
DGN FILE => c:\h550me001.dgn

BORDER LAST REVISED 4/11/2008

LAST REVISION DATE PLOTTED => 29-06-2009
05-26-09 TIME PLOTTED => 07:00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR ADEL MALEK
CALCULATED-DESIGNED BY BERNADETTE SURAWEEERA
CHECKED BY BEN LY
REVISED BY BERNADETTE SURAWEEERA
DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	5,57	33.2/34.0, 10.9/11.2	14	46

Ben Ly
REGISTERED CIVIL ENGINEER DATE 06-01-09
7-13-09 PLANS APPROVAL DATE
No. C33278 Exp. 06-30-10
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
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.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	15	46

06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
BEN LY
 No. C33278
 Exp. 06-30-10
 CIVIL
 STATE OF CALIFORNIA

NOTES:

1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. ALL CHEVRON MARKINGS SHALL BE 45 DEGREE ANGLE FROM MEDIAN ISLAND STRIPING.
3. TRAFFIC STRIPE AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC, UNLESS OTHERWISE NOTED.
4. REMOVE ALL CONFLICTING TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS.
5. EXACT LOCATIONS FOR PAVEMENT MARKINGS TO BE DETERMINED BY THE ENGINEER.
6. PROTECT EXISTING ELECTRICAL LOOPS IN PLACE DURING REMOVAL OF EXISTING TRAFFIC STRIPE AND PAVEMENT MARKINGS ON EXIT RAMP INTERSECTION.
7. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON PORTIONS OF THESE PLANS.
8. NB ROUTE 5 HOV STRIPING WILL BE AS EXISTING.

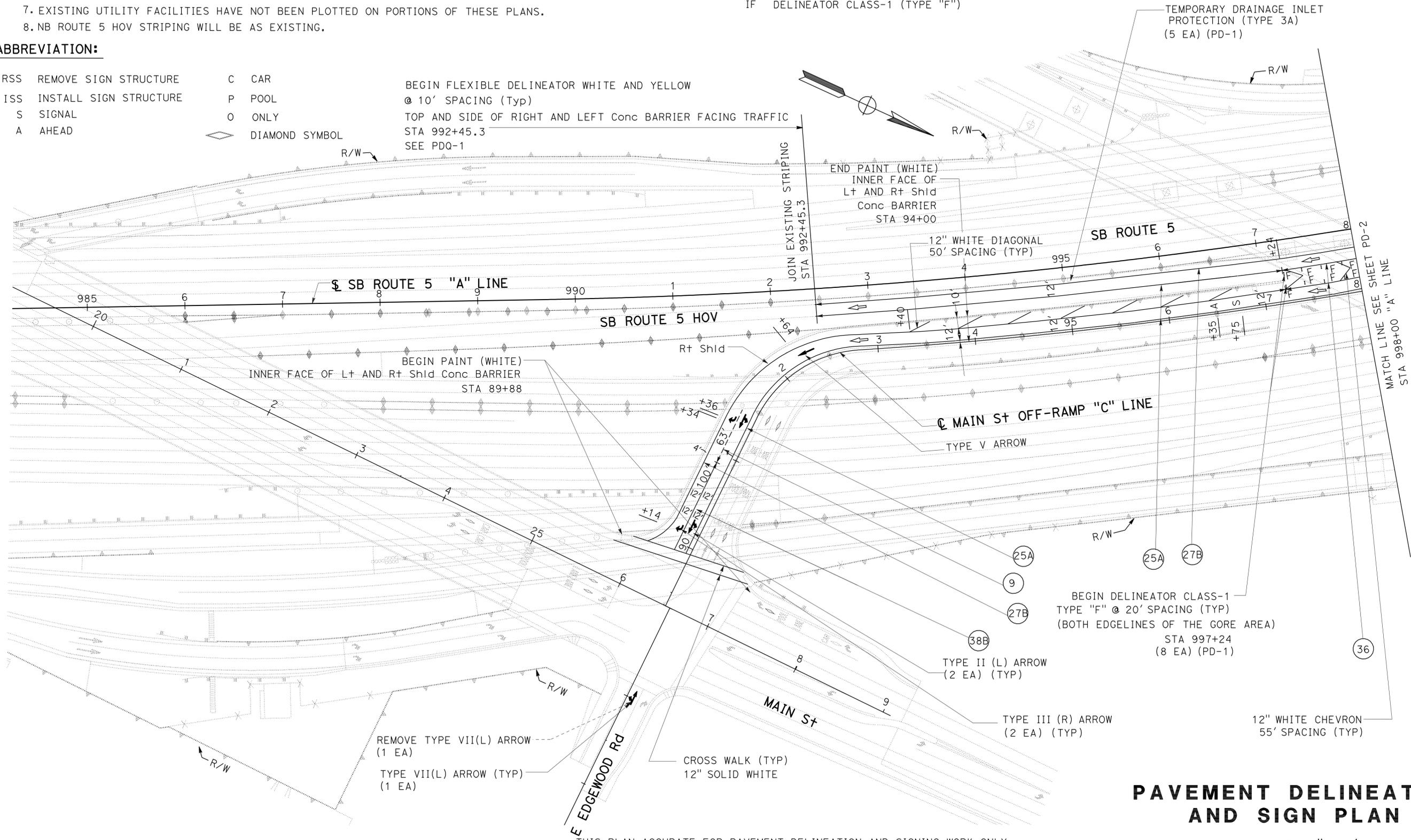
ABBREVIATION:

- | | | | |
|-----|------------------------|---|----------------|
| RSS | REMOVE SIGN STRUCTURE | C | CAR |
| ISS | INSTALL SIGN STRUCTURE | P | POOL |
| S | SIGNAL | O | ONLY |
| A | AHEAD | ◇ | DIAMOND SYMBOL |

BEGIN FLEXIBLE DELINEATOR WHITE AND YELLOW @ 10' SPACING (Typ)
 TOP AND SIDE OF RIGHT AND LEFT Conc BARRIER FACING TRAFFIC
 STA 992+45.3
 SEE PDQ-1

LEGENDS:

- ⊗ PAVEMENT DELINEATION DETAIL
- +— CHANGE OF PAVEMENT DELINEATION DETAIL
- ⊠ SIGN IDENTIFICATION NUMBER
- ⌊ TEMPORARY DRAINAGE INLET PROTECTION
- ↔ TRAFFIC DIRECTION
- IF DELINEATOR CLASS-1 (TYPE "F")



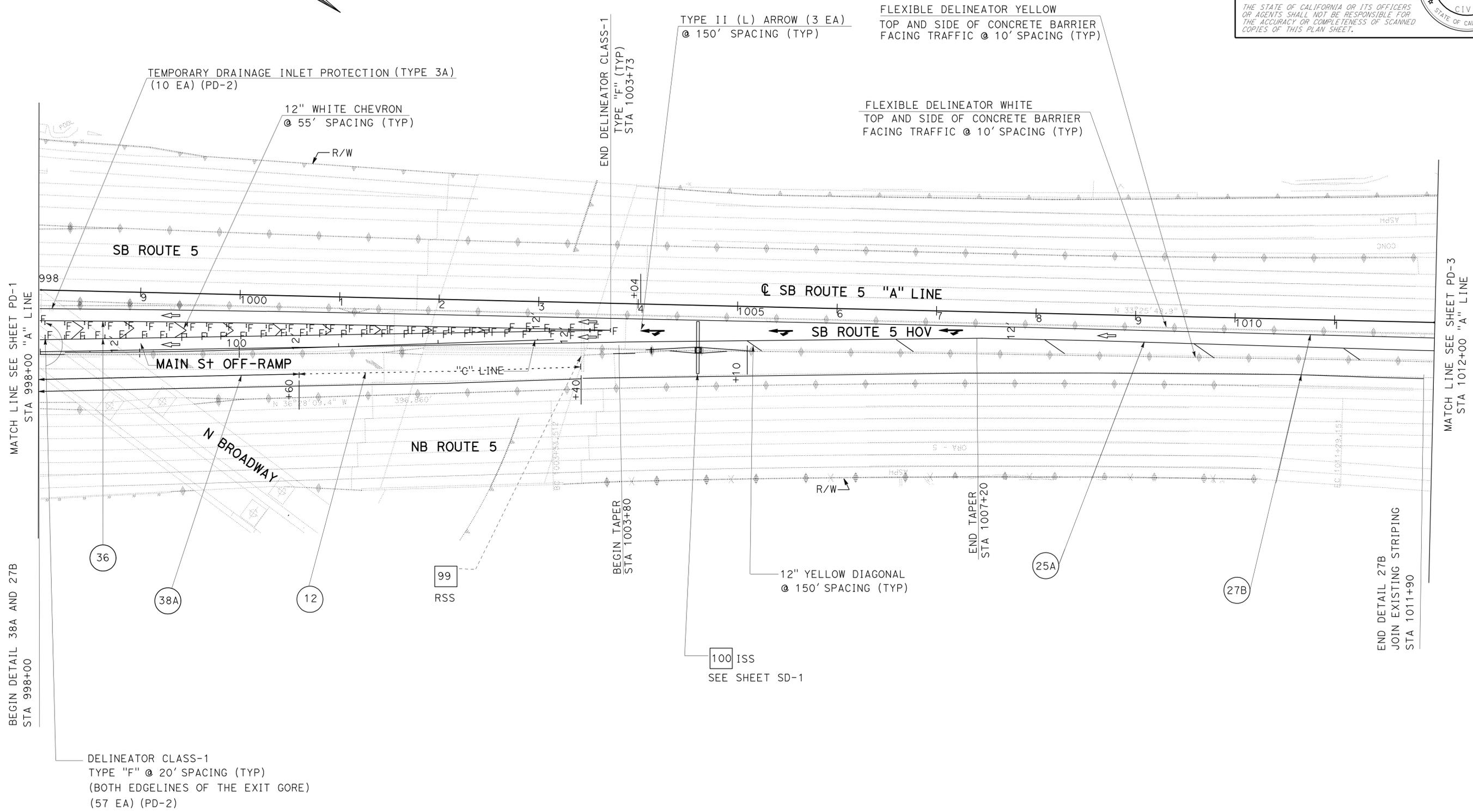
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	16	46

06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 BEN LY
 No. C33278
 Exp. 06-30-10
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ADEL MALEK
CALCULATED-DESIGNED BY	CHECKED BY
BERNADETTE SURAWEEERA	BEN LY
REVISOR	DATE



PAVEMENT DELINEATION AND SIGN PLAN

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGNING WORK ONLY

SCALE: 1"=50'

PD-2

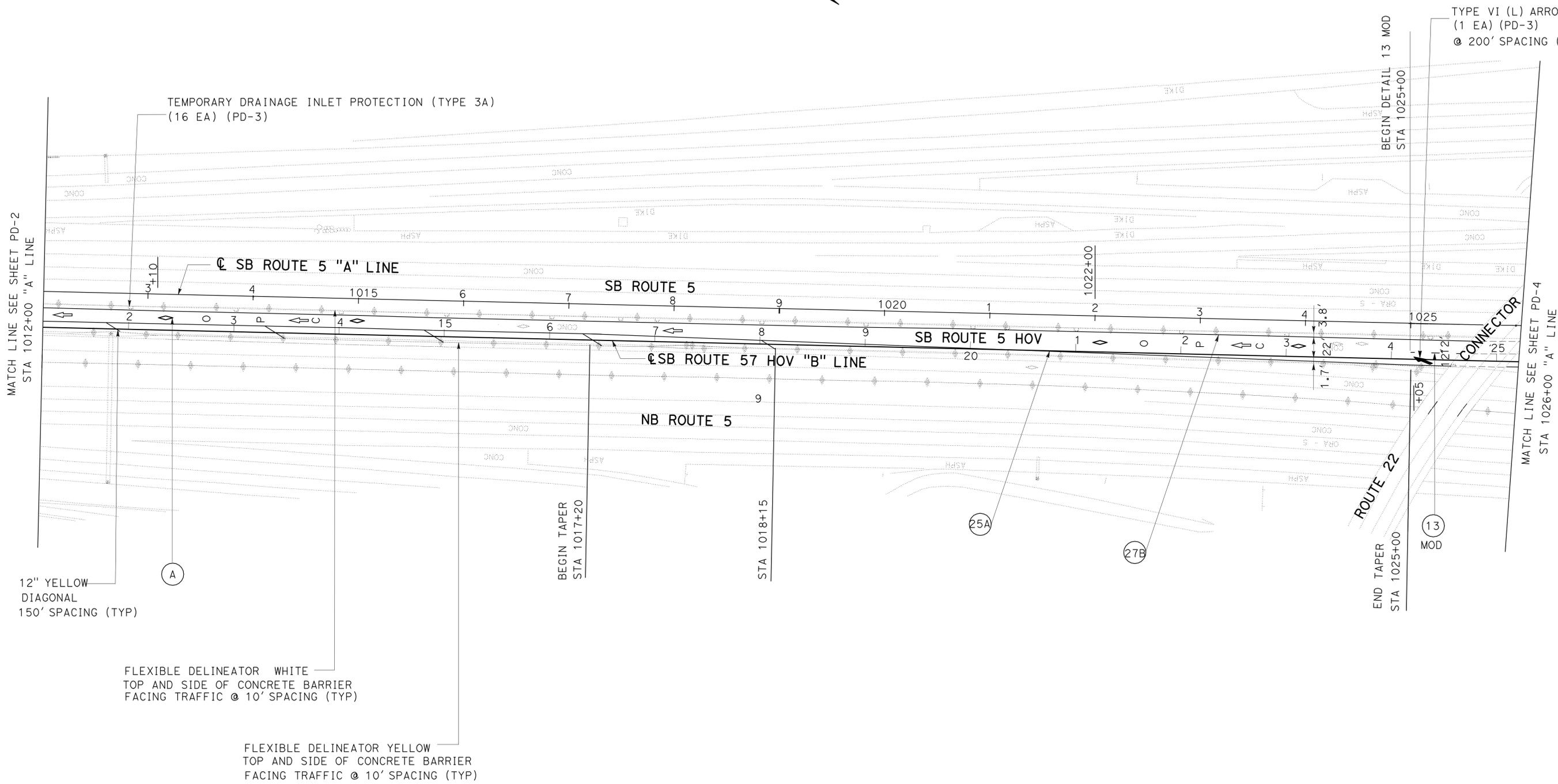
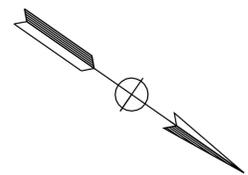


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	17	46

<i>Benny</i>	06-01-09
REGISTERED CIVIL ENGINEER	DATE
7-13-09	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
BEN LY
No. C33278
Exp. 06-30-10
CIVIL
STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN

FUNCTIONAL SUPERVISOR
ADEL MALEK

CALCULATED/DESIGNED BY
BERNADETTE SURAWEEERA

CHECKED BY
BEN LY

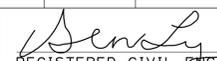
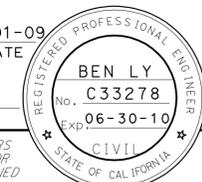
REVISED BY
DATE REVIS

PAVEMENT DELINEATION AND SIGN PLAN

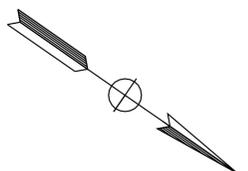
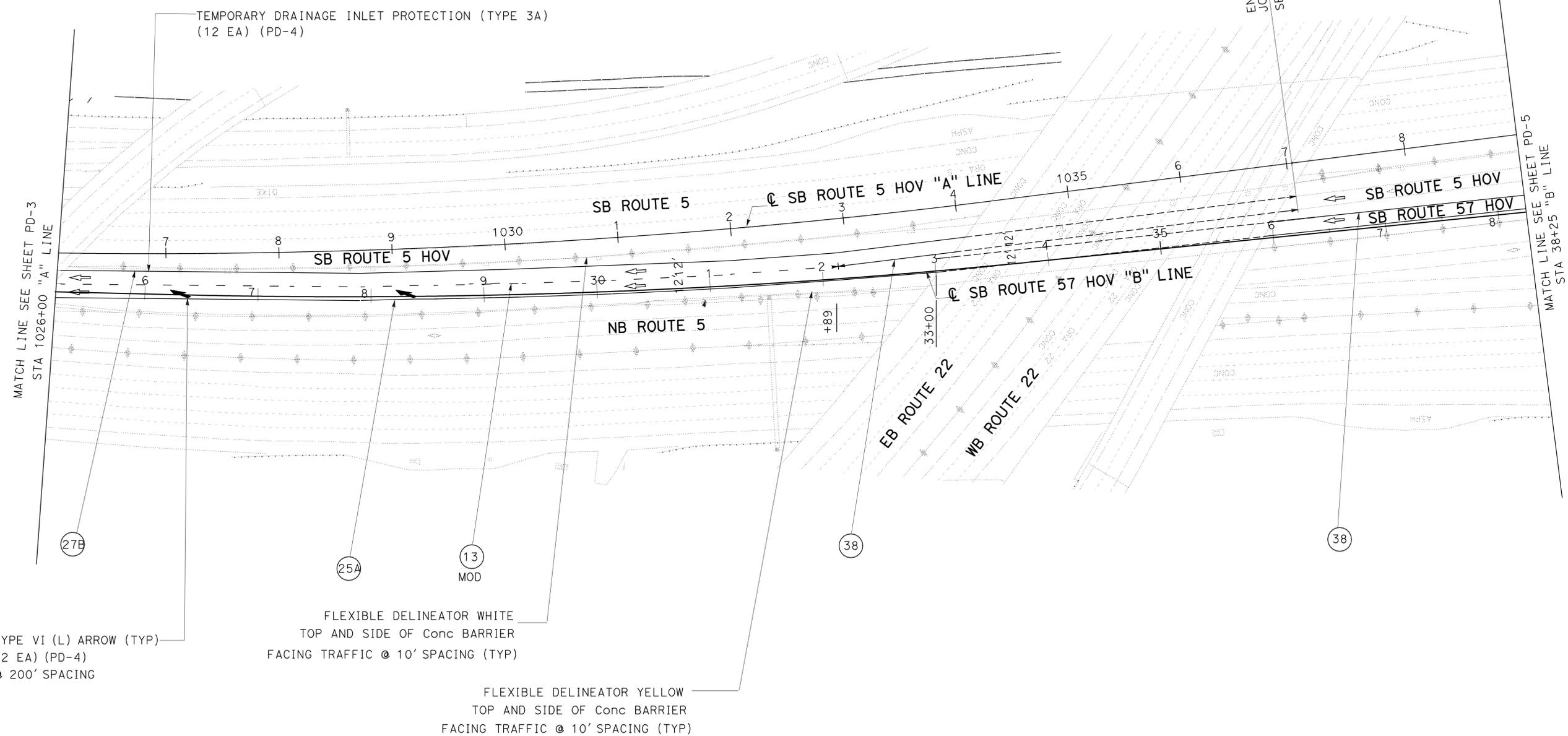
SCALE: 1"=50'

PD-3

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGNING WORK ONLY

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5, 57	33.2/34.0, 10.9/11.2	18	46
 REGISTERED CIVIL ENGINEER DATE 06-01-09					
7-13-09			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>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
	
FUNCTIONAL SUPERVISOR	ADEL MALEK
CALCULATED-DESIGNED BY	CHECKED BY
BERNADETTE SURAWEEERA	BEN LY
REVISED BY	DATE REVISED



PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=50'

PD-4

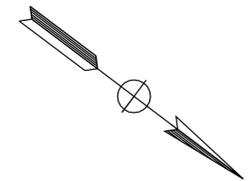
THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGNING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	19	46

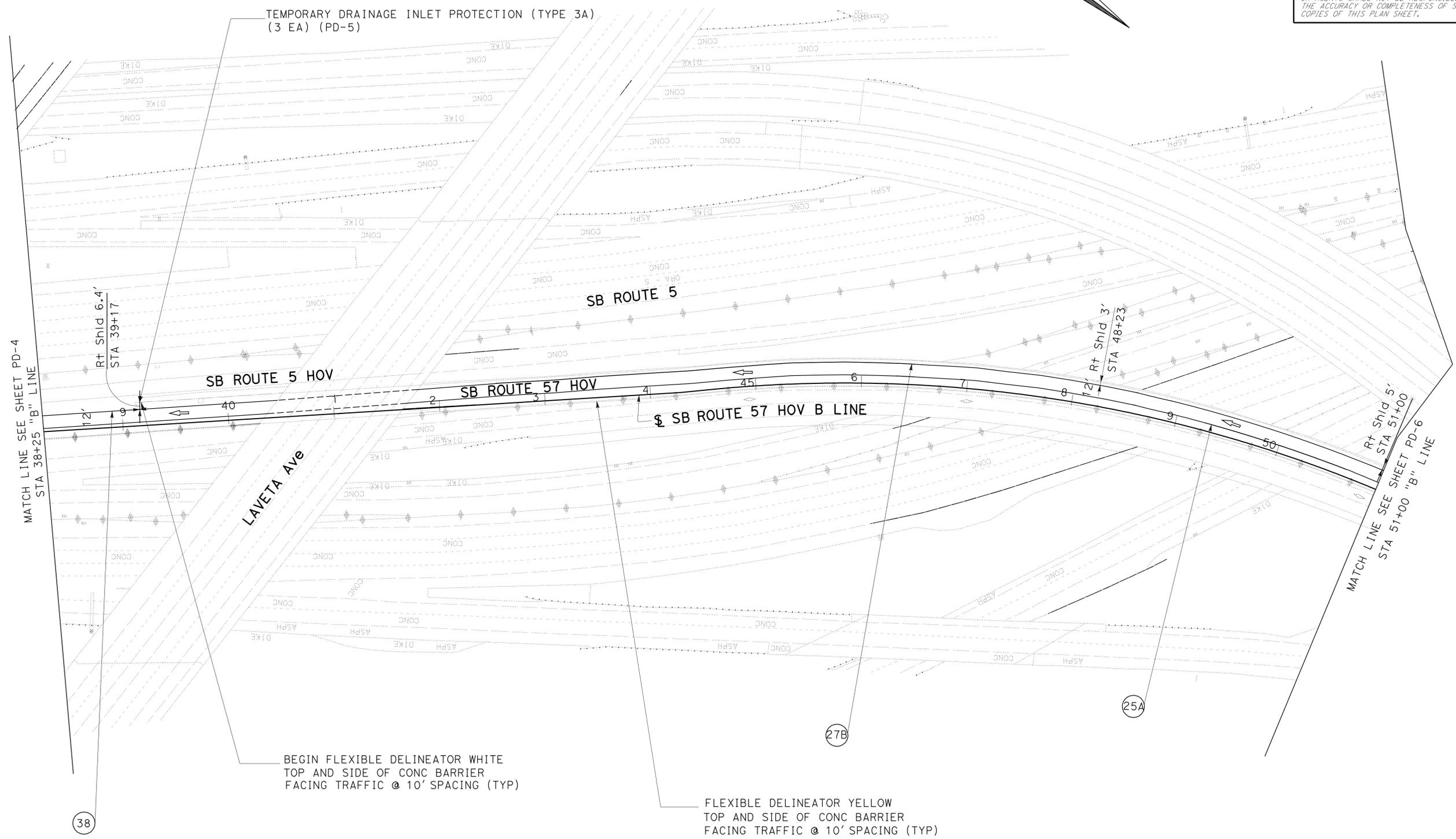
06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BEN LY
 No. C33278
 Exp. 06-30-10
 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	ADDEL MALEK	CALCULATED- DESIGNED BY	BERNADETTE SURAWEEERA	REVISED BY	
Caltrans				CHECKED BY	BEN LY	DATE REVISD	



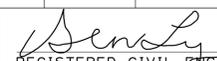
PAVEMENT DELINEATION AND SIGN PLAN

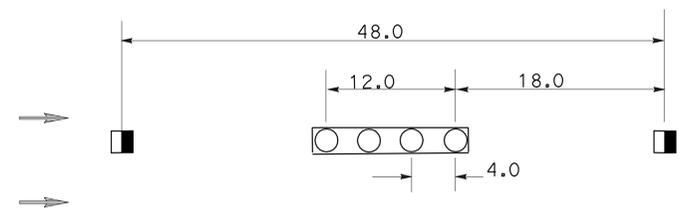
SCALE: 1"=50'

PD-5

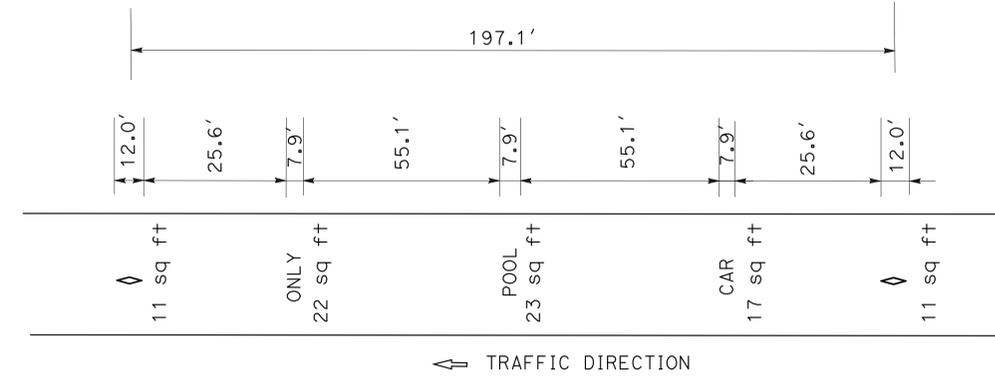
THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGNING WORK ONLY



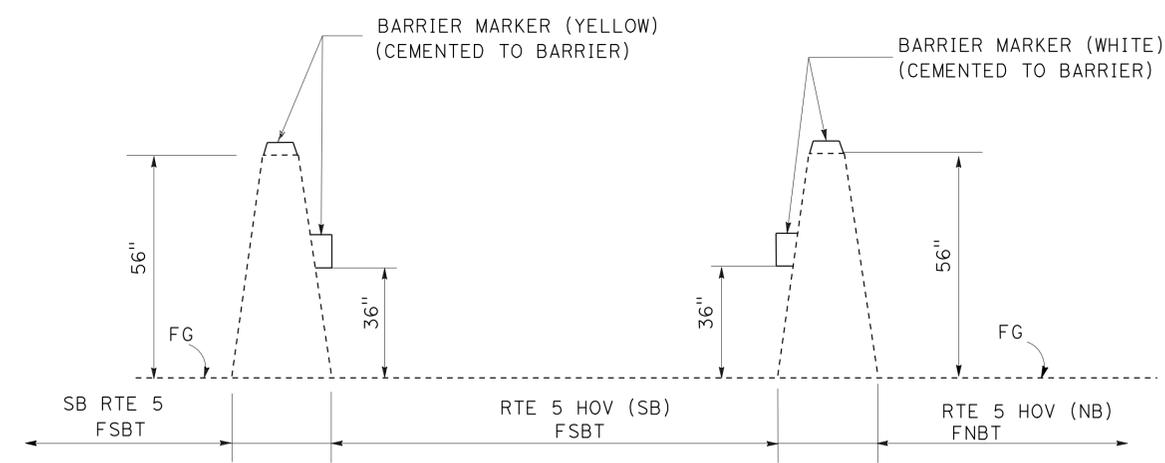
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	21	46
 REGISTERED CIVIL ENGINEER DATE			06-01-09		
PLANS APPROVAL DATE			7-13-09		
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



DETAIL 13 MOD



DETAIL A



FLEXIBLE DELINEATOR DETAIL

NOTE:
SEE STANDARD PLANS A76A AND A76D FOR FLEXIBLE DELINEATOR INSTALLATION

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
	ADEL MALEK	BERNADETTE SURAWEEERA	
DESIGN	CHECKED BY	REVISOR	DATE
	BEN LY	BEN LY	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	22	46

06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

BENE LY
 No. C33278
 Exp. 06-30-10
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 STATE OF CALIFORNIA

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PAVEMENT DELINEATION AND REMOVAL QUANTITIES

SHEET NO.	STATION LIMITS	DIRECTION	THERMOPLASTIC TRAFFIC STRIPE									PAVEMENT MARKING					PAVEMENT MARKER			REMOVE							
			4"					8"				THERMOPLASTIC				PAINT (2-COAT)	RETROREFLECTIVE		DELINEATOR (CLASS 1) TYPE F	FLEXIBLE DELINEATOR (YELLOW)	FLEXIBLE DELINEATOR (WHITE)	YELLOW THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC TRAFFIC STRIPE	YELLOW THERMOPLASTIC PAVEMENT MARKING	THERMOPLASTIC PAVEMENT MARKING	PAINTED PAVEMENT MARKING	PAVEMENT MARKER
			SOLID YELLOW DETAIL 25A	SOLID WHITE DETAIL 27B	BROKEN (17-7) WHITE DETAIL 9	BROKEN (36-12) WHITE DETAIL 12	BROKEN (36-12) WHITE DETAIL 13 MOD	SOLID WHITE DETAIL 36	SOLID WHITE DETAIL 38 AND 38A	SOLID WHITE DETAIL 38B	CROSS WALK/CHEVRON/ DIAGONAL WHITE	ARROW WHITE	SYMBOL AND WORDS WHITE	12" DIAGONAL YELLOW	ARROW WHITE	NON REFLECTIVE TYPE A	RETROREFLECTIVE TYPE G	RETROREFLECTIVE TYPE H									
			LF	LF	LF	LF	LF	LF	LF	LF	SQFT	SQFT	SQFT	SQFT	SQFT	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
PD-1	MAIN St OFF-RAMP Sta 89+75 TO 98+00	SB	815	845	63		79	100	466	273	63					20	35	4	166			815	1222		736		55
	E EDGEWOOD Rd													27												27	
PD-2	ROUTE 5 HOV Sta 992+45 TO 998+00	SB	555	555			79		75							5	24	4		112	555	713			37		24
	MAIN St OFF-RAMP Sta 98+00 TO 103+73	SB	576				576									25	25	28	114		426	852					38
	ROUTE 5 HOV Sta 998+00 TO 1012+00	SB	830	1400			576		220	135		123				25	36	29	166	280	980	2252	123	406			140*
PD-3	ROUTE 5 HOV Sta 998+00 TO 1011+90	NB		1390		280		260								10						2000					
	ROUTE 5 HOV Sta 1012+00 TO 1026+00	SB	1400	1400			105			42	168	112			10	5	60		300	280	1400	1400	112	126			50*
PD-4	ROUTE 5 HOV Sta 1026+00 TO 1037+00	SB	628	1100			684	416			84				60	33	28			220	628	2110					61
	ROUTE 57 HOV Sta 32+00 TO 38+25	SB	625				525									23	27		126		625	640					50
PD-5	ROUTE 57 HOV Sta 38+25 TO 51+00	SB	1275	1193			95									5	55		252	238	1257	1383					60
PD-6	ROUTE 57 HOV Sta 51+00 TO 60+57	SB	957	957													41		10	10	957	957					41
SUBTOTAL			7661	8840	63	280	789	1310	1296	100	761	534	231	235	27	70	151	331	65	1134	1140	7643	13529	235	1305	27	519
TOTAL			16501		63	1069		2706			1761			27	70		482		65	2274	7643	13529	235	1305	27	519	

NOTE:

*THIS INCLUDES REMOVING NON-REFLECTIVE TYPE "AY" YELLOW MARKERS ON YELLOW DIAGONALS

PAVEMENT DELINEATION QUANTITIES

PDQ-1

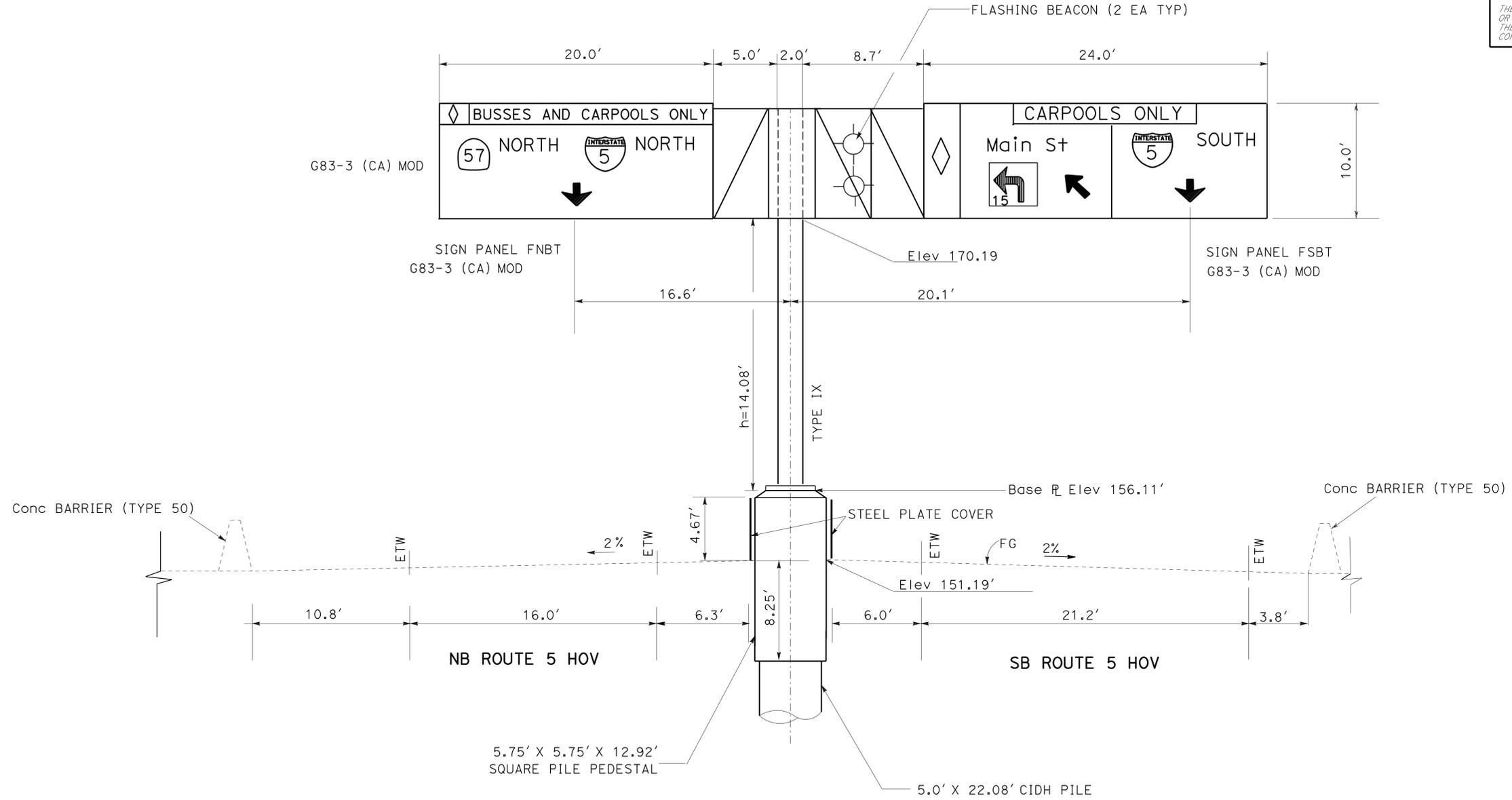


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	23	46

Benny 06-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 No. C33278
 Exp. 06-30-10
 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.



NOTE:
 THE DEPTH OF THE SQUARE PEDESTAL PILE FOUNDATION IS 35' (CIDH AND PEDESTAL)

SIGN 100
SB I-5 STA "A" 1004+60
(ILLUMINATED)

SIGN DETAILS
 NO SCALE **SD-1**

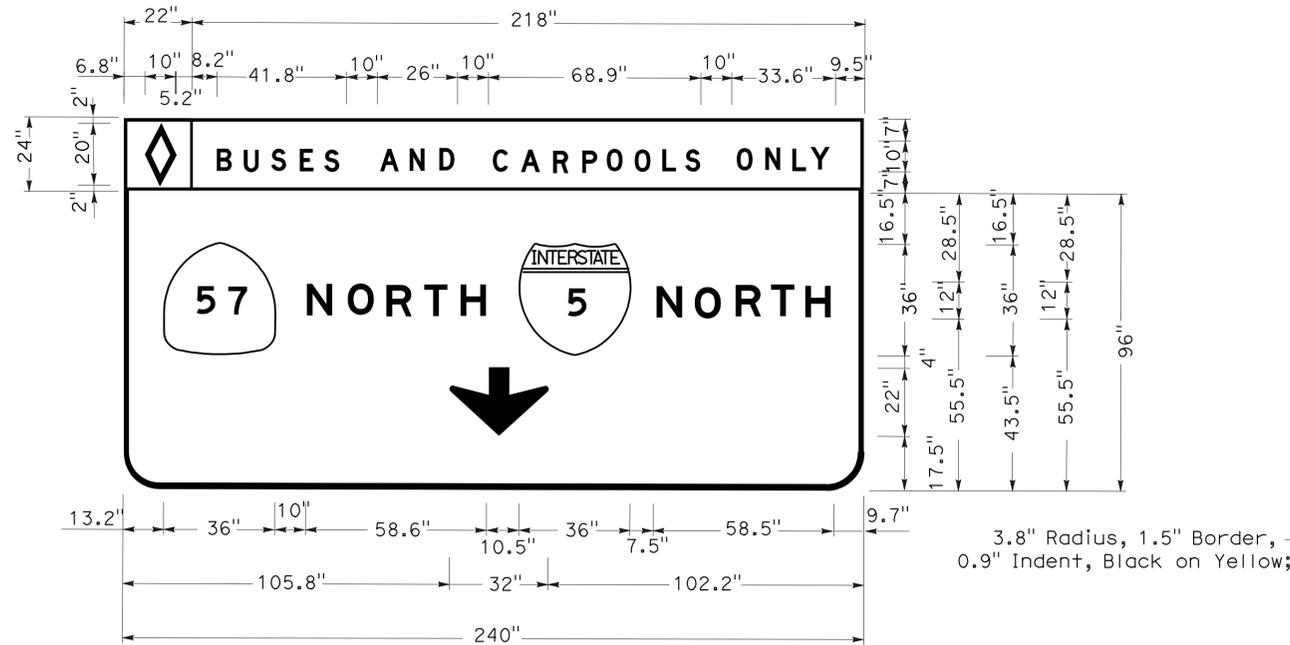
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 ADEL MALEK
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 BERNADETTE SURAWEEERA
 REVISOR
 DATE REVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	24	46

06-29-09
 REGISTERED CIVIL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

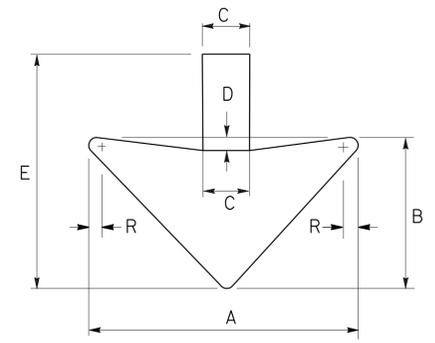
BEN LY
 No. C33278
 Exp. 06-30-10
 CIVIL
 STATE OF CALIFORNIA

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**G83-3 (CA) MOD
SIGN 100 FNBT**

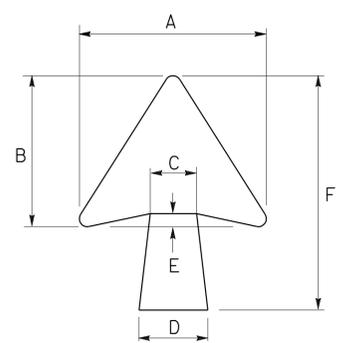
- 1.1" Radius, 1.0" Border, White on Black; Symbol RG005;
- 1.5" Radius, 1.0" Border, 0.4" Indent, Black on White; [BUSES AND CARPOOLS ONLY] D;
- 12.0" Radius, 2.0" Border, White on Green; [NORTH] E; [NORTH] E; Down Arrow 22.0"



DIMENSION IN INCHES

A	B	C	D	E	R
32	16	6-1/2	3	22	1

VERTICAL DOWN ARROW DETAIL

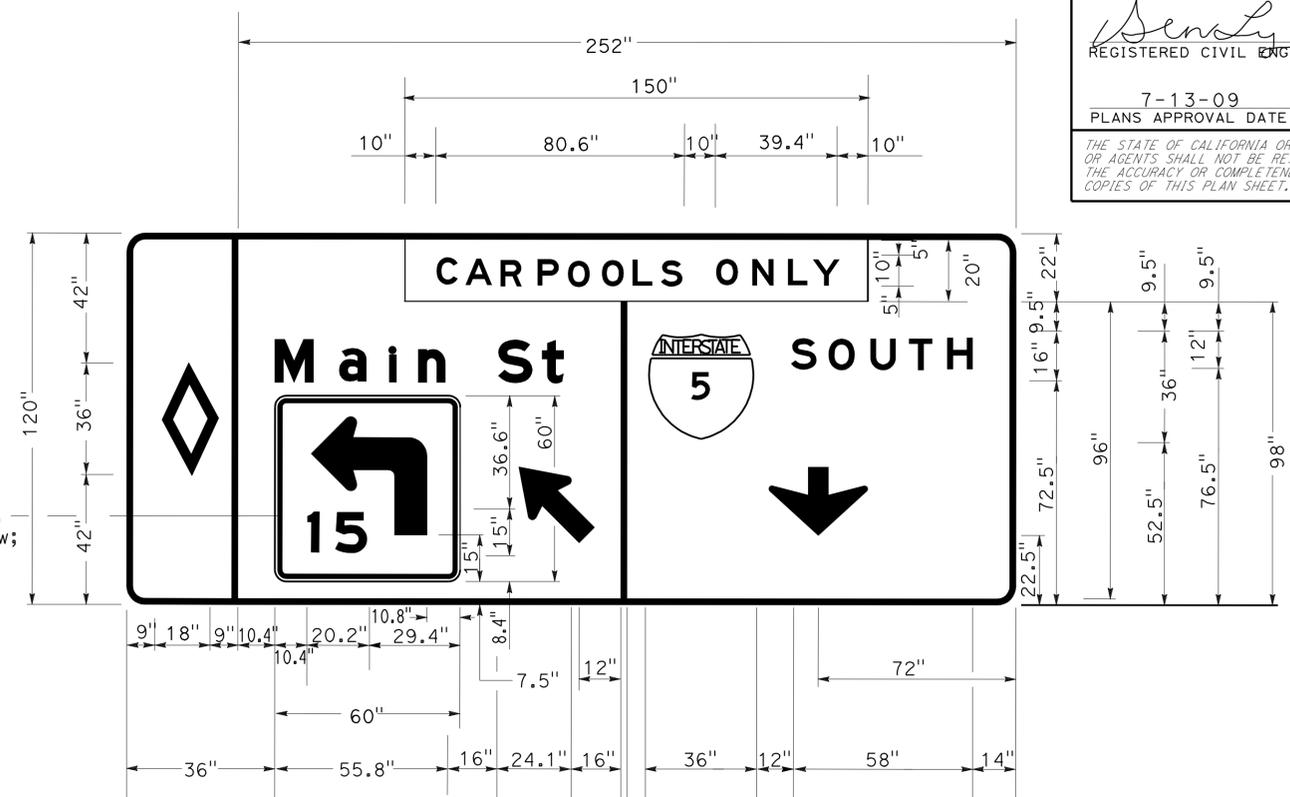


ONE LINE HORIZONTAL, VERTICAL OR DIAGONAL ARROW

DIMENSION IN INCHES

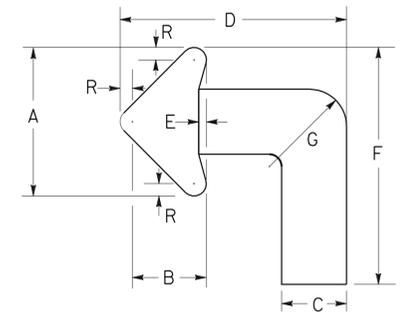
A	B	C	D	E	F
22-1/4	17	5-3/8	6-3/16	1-3/4	25

DIAGONAL ARROW DETAIL



**G83-3 (CA) MOD
SIGN 100 FSBT**

- No border, White; [CARPOOLS ONLY] Black E;
- 6.0" Radius, 2.0" Border, White on Black; [15] E Mod; Symbol RG005;
- 6.0" Radius, 2.0" Border, White on Green; [Main St] E Mod; [SOUTH] E;



DIMENSION IN INCHES

A	B	C	D	E	F	G	R
24	19	8-3/4	40	1-1/2	39	10-3/4	1-1/2

ADVANCE ARROW DETAIL

SIGN PANEL DETAILS

NO SCALE **SD-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 ADEL MALEK
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 BERNADETTE SURAWEEA
 REVISOR
 BEN LY
 DATE REVISOR

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	25	46

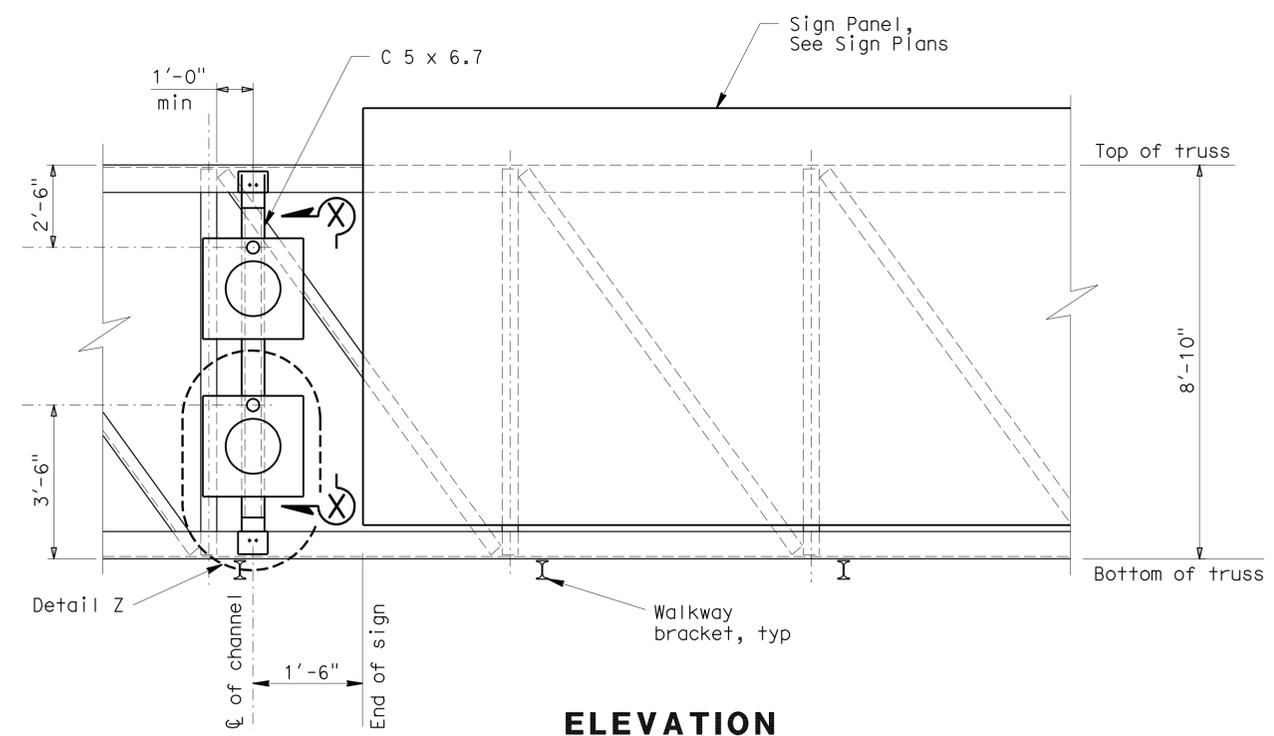
K.C. Liu 6-1-09
 REGISTERED CIVIL ENGINEER DATE

7-13-09
 PLANS APPROVAL DATE

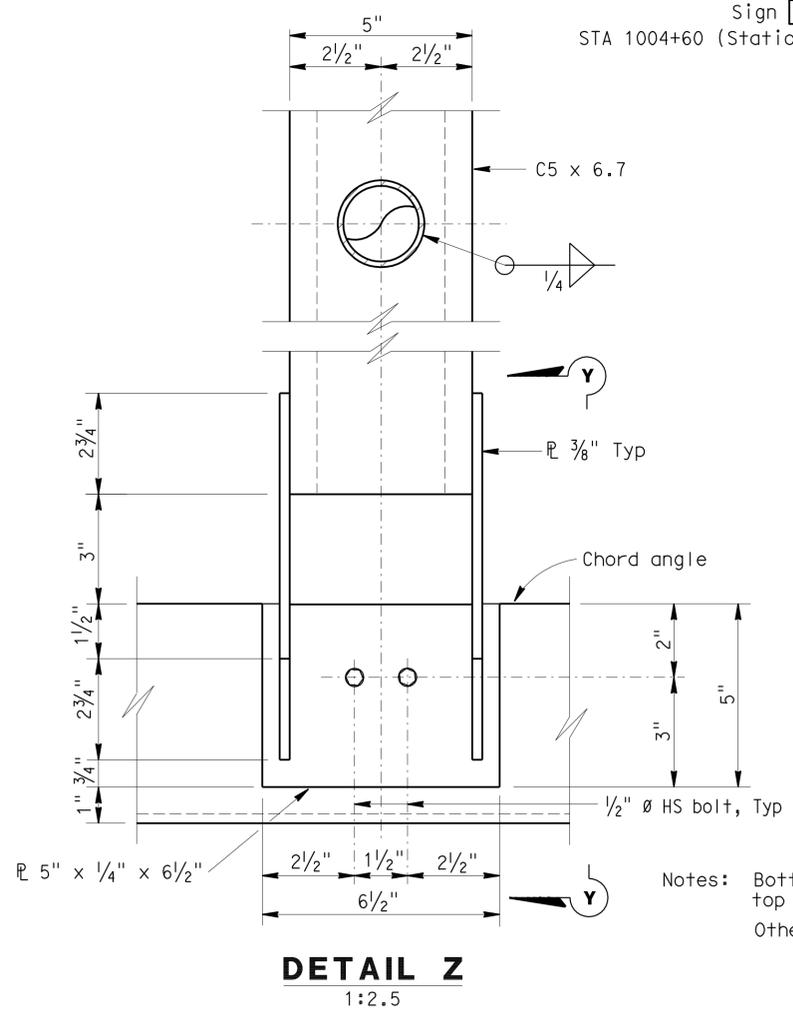
K.C. LIU
 No. C 50291
 Exp. 06-30-11
 CIVIL
 STATE OF CALIFORNIA

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

- NOTES:**
- All holes in members shall be drilled. Thermal cutting and torch cutting not allowed.
 - For details not shown, see Standard Plans.
 - Unless otherwise shown, all steel shall be galvanized after fabrication.

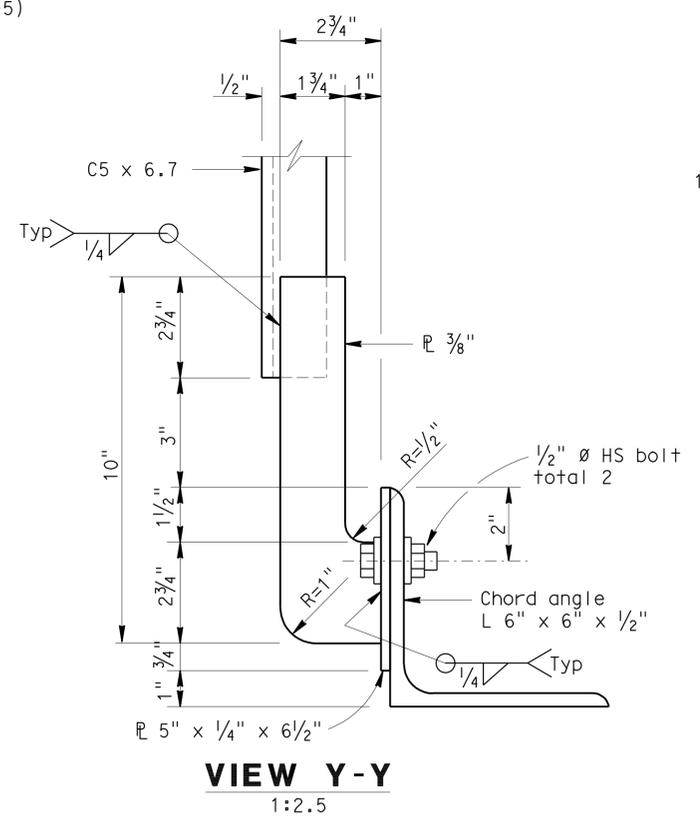


ELEVATION
 No Scale
 Sign 100
 STA 1004+60 (Station refers to § SB I-5)

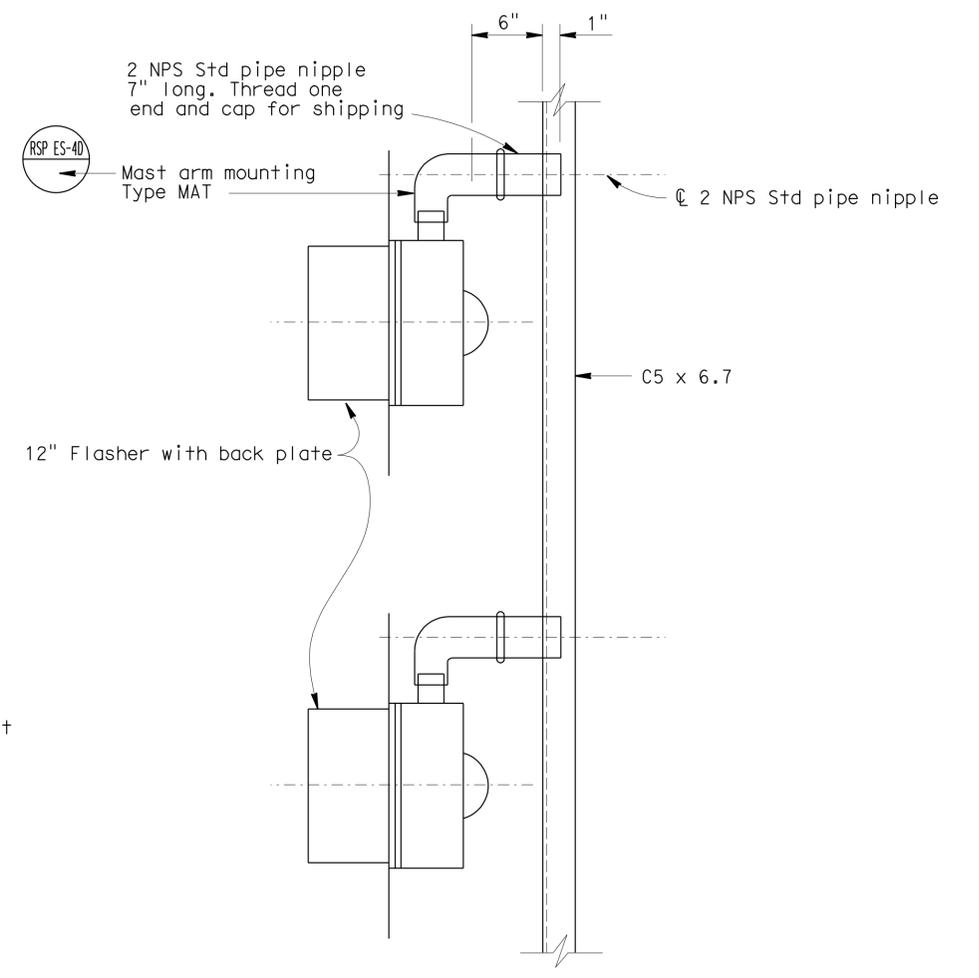


DETAIL Z
 1:2.5

Notes: Bottom chord connection shown. top chord connection similar. Other framing not shown for clarity.



VIEW Y-Y
 1:2.5



VIEW X-X
 No Scale

OH SIGN 100
FLASHING BEACON DETAILS

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	26	46

Benny 06-01-09
 REGISTERED CIVIL ENGINEER DATE

7-13-09
 PLANS APPROVAL DATE

No. C33278
 Exp. 06-30-10

REGISTERED PROFESSIONAL ENGINEER
 BEN LY
 No. C33278
 Exp. 06-30-10
 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.

OVERHEAD SIGN QUANTITIES

SHEET NO.	SIGN NO. XXX	LOCATION	FURNISH SIGN STRUCTURE (TRUSS)	INSTALL SIGN STRUCTURE (TRUSS)	60" DIA CIDH CONCRETE PILE (SIGN FOUNDATION)	REMOVE SIGN STRUCTURE
			LB	LB	LF	EA
SD-1	100 (TRUSS)	SB 5 HOV/Main Street HOV off-ramp	27,000	27,000	35	1

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGN)

SIGN NO.	CODE	PANEL SIZE (INCH X INCH)	SIGN AREA (SQFT)	SINGLE FACE	BACKGROUND		LEGEND		FURNISH LAMINATED SIGN PANEL (1" - TYPE A)	REMARKS
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE		
100	G83-3 (CA) MOD	240X120	200	X	BLACK, YELLOW, GREEN, BLUE, RED	IV	WHITE/BLACK	IV	200	FACING NB TRAFFIC
	G83-3 (CA) MOD	288X120	240	X	BLACK, YELLOW, GREEN, BLUE, RED	IV	WHITE/BLACK	IV	240	FACING SB TRAFFIC
TOTAL									440	

SIGN QUANTITIES

SQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	27	46

Ben Ly 06-01-09
 REGISTERED CIVIL ENGINEER DATE

7-13-09
 PLANS APPROVAL DATE

No. C33278
 Exp. 06-30-10

REGISTERED PROFESSIONAL ENGINEER
 BEN LY
 No. C33278
 Exp. 06-30-10
 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
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 ADEL MALEK
 CALCULATED-DESIGNED BY
 CHECKED BY
 BERNADETTE SURaweera
 BEN LY
 REVISED BY
 DATE REVISED

CONCRETE BARRIER

STATION	LOCATION	REMOVE CONC BARRIER (TYPE 50)	CONCRETE BARRIER		PREPARE AND PAINT CONCRETE BARRIER
			60G	60GE	
		LF	LF	LF	SQFT
"A" 1003+91 TO 1004+15	MEDIAN Conc BARRIER BETWEEN SB 5 HOV AND NB 5 HOV	24	24		
"A" 1004+15 TO 1005+20	MEDIAN Conc BARRIER BETWEEN SB 5 HOV AND NB 5 HOV	105		105	
"A" 1005+95 TO 1006+15	MEDIAN Conc BARRIER BETWEEN SB 5 HOV AND NB 5 HOV	20		20	
"C" 89+88 TO 94+00	INNER FACE OF RIGHT SHOULDER Conc BARRIERS				2500
	TOTAL	149	24	125	2500

TEMPORARY WATER POLLUTION CONTROL

TEMPORARY DRAINAGE INLET PROTECTION	TEMPORARY CONCRETE WASHOUT (PORTABLE)
EA	EA
52	1

CIDH PILE (FOR ELECTROLIER)

STATION	30" Dia CIDH CONCRETE PILE (N)
	LF
"A" 1004+25	13.5
"A" 1006+05	13.5
TOTAL	27.0

(N) NOT A SEPARATE PAY ITEM. THE LENGTH IS GIVEN FOR INFORMATION ONLY. PAYMENT IS INCLUDED UNDER FLASHING BEACONS, MODIFY LIGHTING AND SIGN ILLUMINATION.

NOTES:

- SEE PD-1 TO PD-6 FOR DRAINAGE INLETS
- SEE C-1, C-2 AND C-3 FOR FOUNDATION DETAILS FOR LIGHT POLES

SUMMARY OF QUANTITIES

Q-1

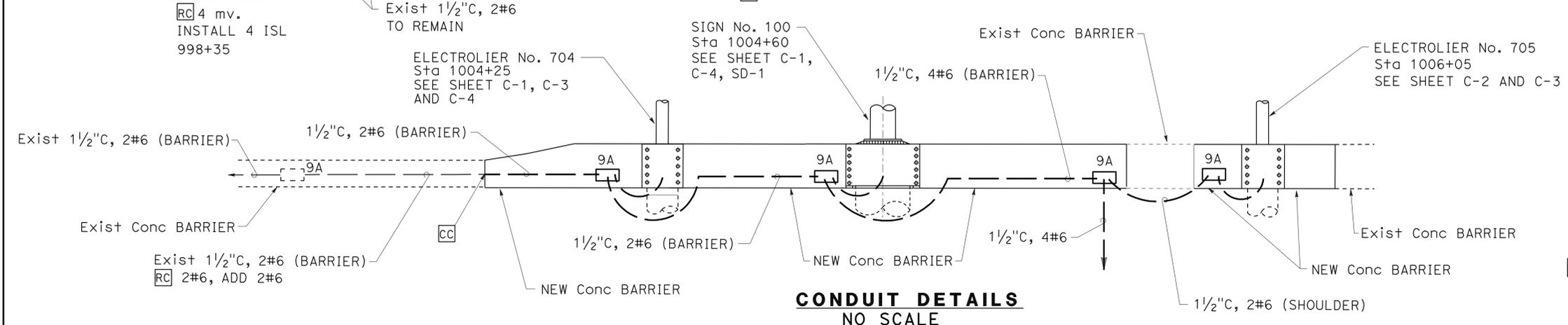
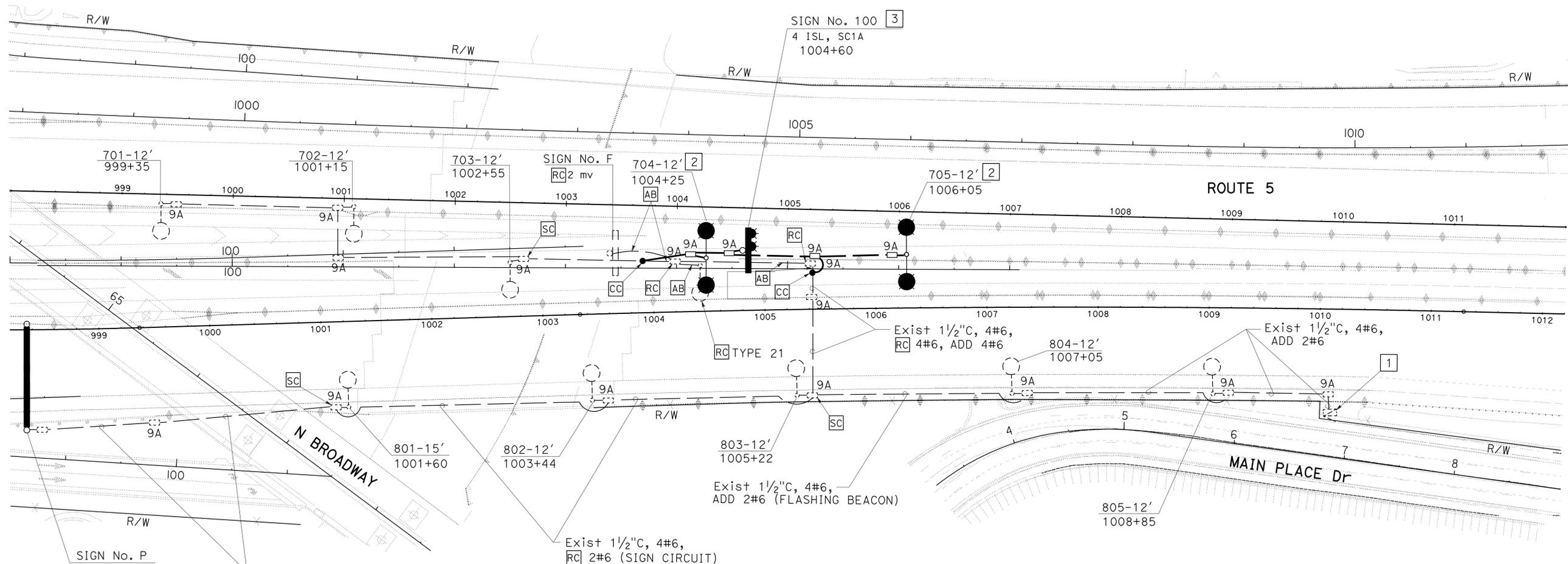
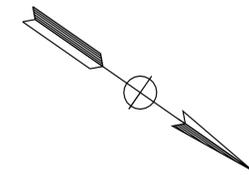
LAST REVISION | DATE PLOTTED => 29-OCT-2009 | 05-28-09 | TIME PLOTTED => 07:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	5,57	33.2/34.0, 10.9/11.2	28	46

Vanessa Van Truong 06-01-09
 REGISTERED ELECTRICAL ENGINEER DATE
 7-13-09
 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)

- EXISTING 120/240 V TYPE III-CF SERVICE EQUIPMENT ENCLOSURE. INSTALL 1-15 A, 120 V, 1P, CB FOR FLASHING BEACON.
- TYPE 21D DOUBLE ARM LIGHTING STANDARD WITH 310 W HPS AT GROUND LEVEL BETWEEN BARRIER GAP.
- INSTALL LED FLASHING BEACON CONTROL ASSEMBLY. SEE ES-3B. INSTALL 2-12" YELLOW LED LAMP.
- SEE SHEET E-2 FOR WIRING DIAGRAM.
- SEE CONDUIT DETAILS FOR ADDITIONAL INSTALLATION DETAILS.
- FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORDS AT DISTRICT OFFICE.



**FLASHING BEACONS,
MODIFY LIGHTING AND
SIGN ILLUMINATION**

SCALE: 1"=50'

E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: SHAHRAM SHAHRIARI
 CALCULATED-DESIGNED BY: SHAHRAM SHAHRIARI
 CHECKED BY: SHAHRAM SHAHRIARI
 VANESSA TRUONG
 REVISED BY: SHAHRAM SHAHRIARI
 DATE REVIS:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	5,57	33.2/34.0, 10.9/11.2	29	46

Vanessa Van Truong 06-01-09
 REGISTERED ELECTRICAL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

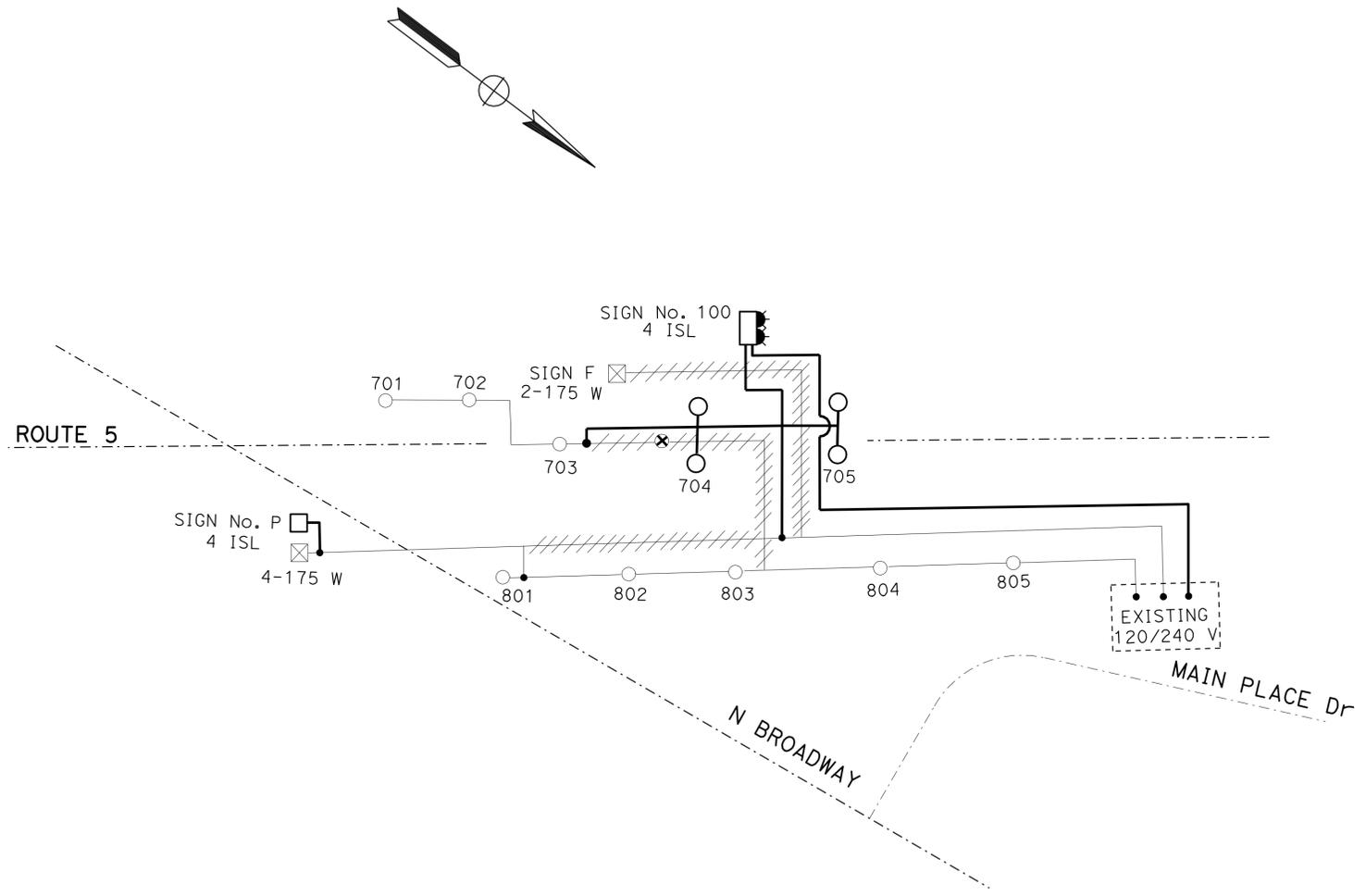
REGISTERED PROFESSIONAL ENGINEER
 VANESSA VAN TRUONG
 No. E 13983
 Exp. 6/30/10
 ELECTRICAL
 STATE OF CALIFORNIA

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
Caltrans ELECTRICAL DESIGN	SHAHRAM SHAHRIARI	SHAHRAM SHAHRIARI	VANESSA TRUONG
		CHECKED BY	DATE REVISED
			SHAHRAM SHAHRIARI

WIRING DIAGRAM LEGEND

- EXISTING 2#6 TO REMAIN
- EXISTING 310 W hps TO REMAIN
- ⊗ EXISTING 310 W hps TO BE REMOVED
- ⊠ EXISTING SIGN ILLUMINATION EQUIPMENT TO BE REMOVED
- //// EXISTING 2#6 TO BE REMOVED
- NEW 310 W HPS
- ⊠ NEW ISL AND FLASHING BEACON
- NEW ISL
- SPLICE
- NEW 2#6



**FLASHING BEACONS,
MODIFY LIGHTING AND
SIGN ILLUMINATION
WIRING DIAGRAM**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

E - 2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5, 57	33.2/34.0, 10.9/11.2	30	46

Vanessa Van Truong
 REGISTERED ELECTRICAL ENGINEER DATE _____
 7-13-09
 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.

WIRING DIAGRAM LEGEND (TEMPORARY)

- EXISTING 2#6 TO REMAIN
- EXISTING SIGN ILLUMINATION EQUIPMENT TO REMAIN
- EXISTING 310 W hps TO REMAIN
- SPLICE
- OH— NEW TEMPORARY OVERHEAD 2#6
- NEW TEMPORARY 2#6

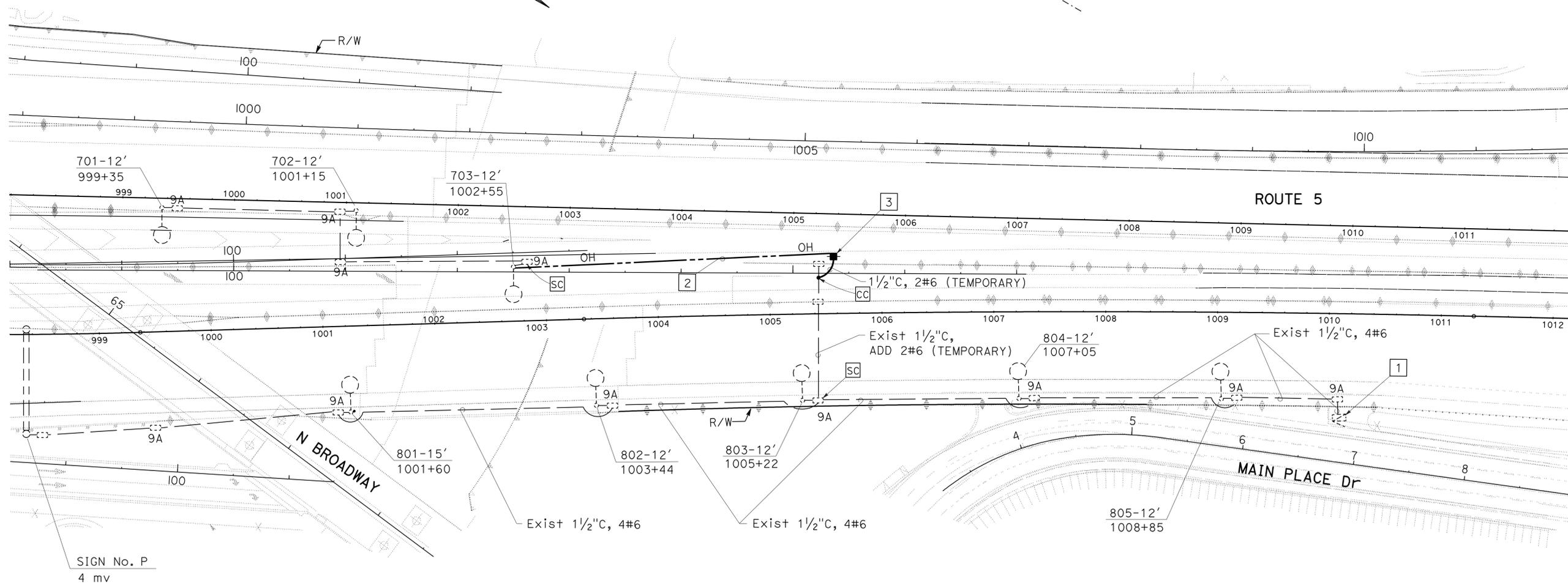
ROUTE 5

SIGN No. P
4-175 W

EXISTING
120/240 V

WIRING DIAGRAM (TEMPORARY)

NO SCALE



NOTES: (THIS SHEET ONLY)

- 1 EXISTING 120/240 V TYPE III-CF SERVICE EQUIPMENT ENCLOSURE.
- 2 INSTALL TEMPORARY OVERHEAD 2#6 WITH 3/8" SPAN-WIRE, 20' CLEARANCE.
- 3 INSTALL TEMPORARY WOOD POLE WITH TYPE H RISER.
4. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORDS AT DISTRICT OFFICE.

LIGHTING (TEMPORARY)

SCALE: 1"=50'

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: SHAHRAM SHAHRIARI
 CALCULATED/DESIGNED BY: SHAHRAM SHAHRIARI
 CHECKED BY: SHAHRAM SHAHRIARI
 VANESSA TRUONG
 SHAHRAM SHAHRIARI
 REVISED BY: _____ DATE REVISED: _____

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	31	46

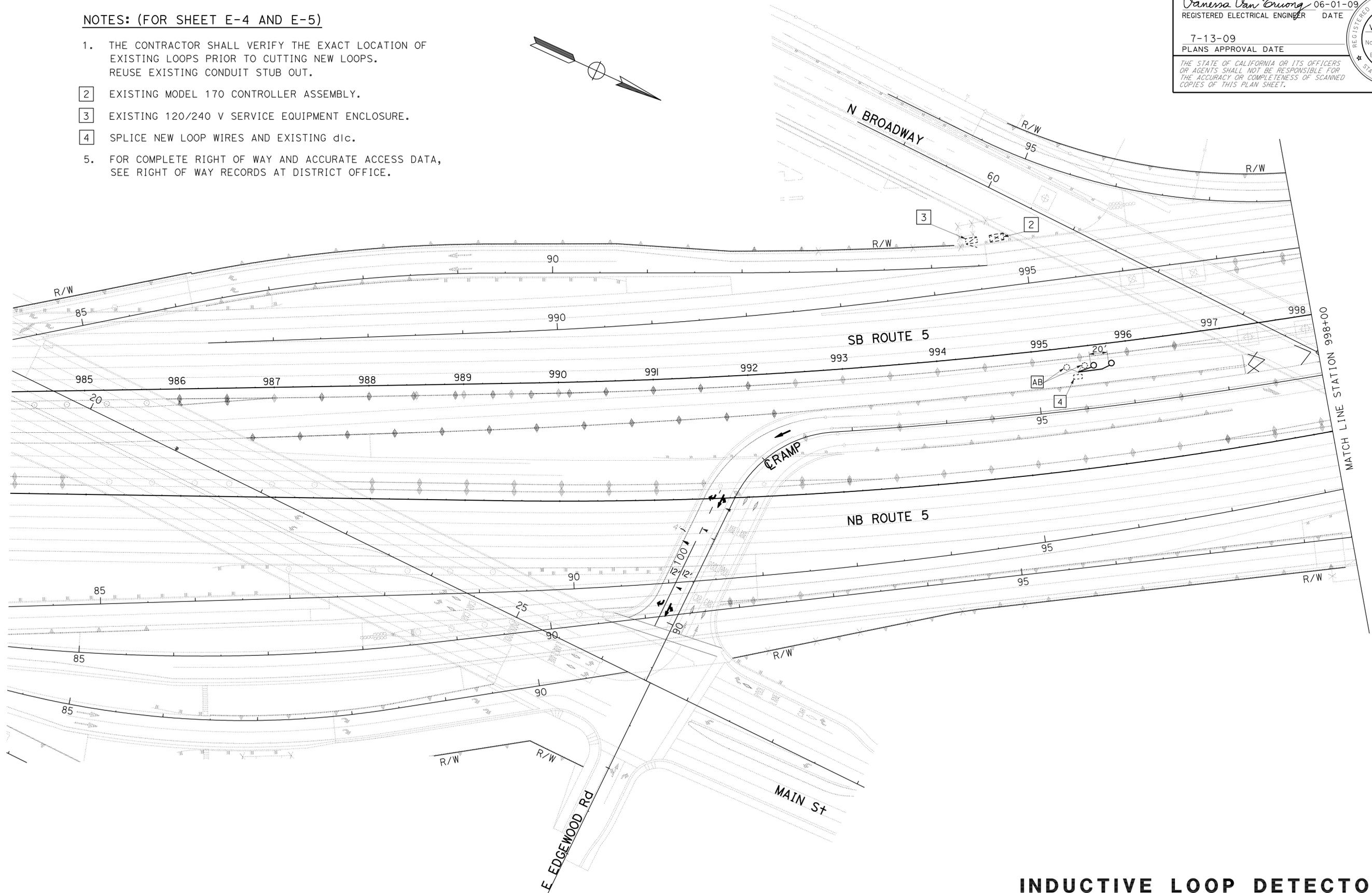
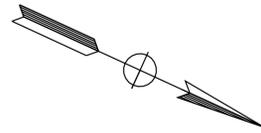
Vanessa Van Truong 06-01-09
 REGISTERED ELECTRICAL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
VANESSA VAN TRUONG
 No. E 13983
 Exp. 6/30/10
 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 SHEET E-4 AND E-5)

1. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING LOOPS PRIOR TO CUTTING NEW LOOPS. REUSE EXISTING CONDUIT STUB OUT.
2. EXISTING MODEL 170 CONTROLLER ASSEMBLY.
3. EXISTING 120/240 V SERVICE EQUIPMENT ENCLOSURE.
4. SPLICE NEW LOOP WIRES AND EXISTING dlc.
5. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORDS AT DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
Caltrans	SHAHRAM SHAHRIARI	SHAHRAM SHAHRIARI	VANESSA TRUONG
ELECTRICAL DESIGN	SHAHRAM SHAHRIARI	CHECKED BY	SHAHRAM SHAHRIARI
			DATE REVISOR

INDUCTIVE LOOP DETECTOR

SCALE: 1"=50'

E - 4

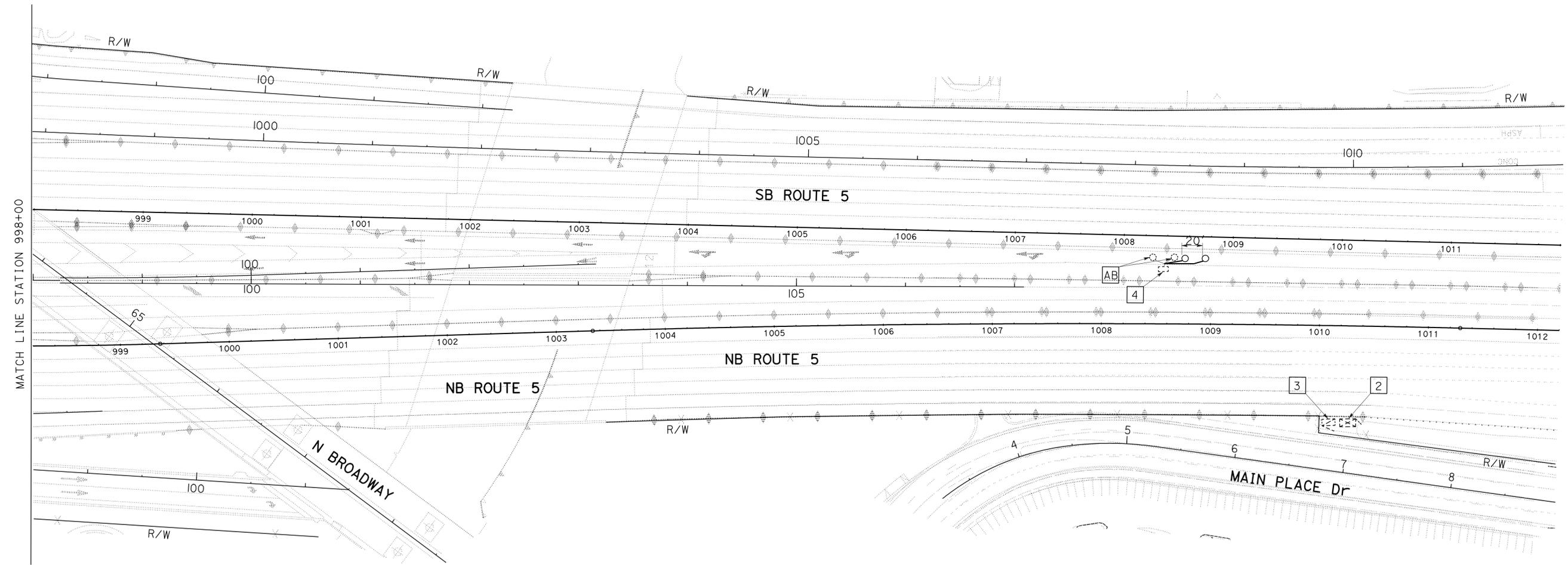
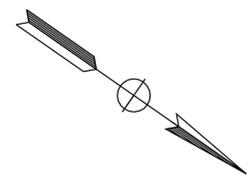
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	32	46

Vanessa Van Truong 06-01-09
 REGISTERED ELECTRICAL ENGINEER DATE
 7-13-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
VANESSA VAN TRUONG
 No. E 13983
 Exp. 6/30/10
 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.



FOR NOTES SEE SHEET E-4

INDUCTIVE LOOP DETECTOR

SCALE: 1"=50'

E - 5

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

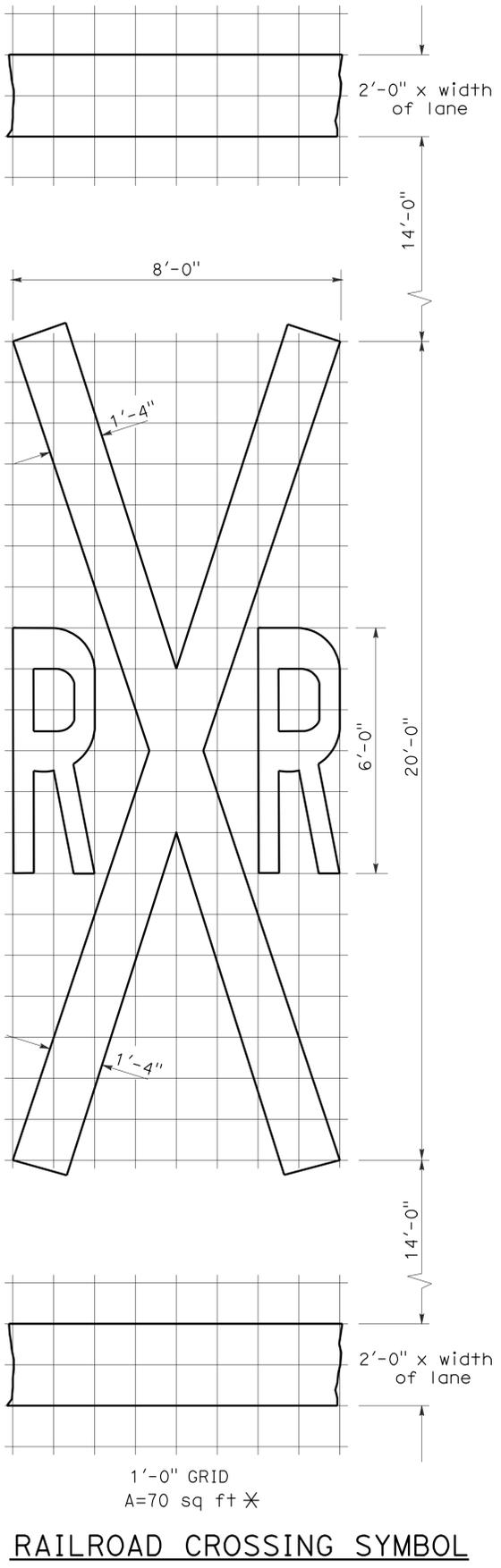
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	VANESSA TRUONG	REVISOR BY	
Caltrans ELECTRICAL DESIGN	SHAHRAM SHAHRIARI	CHECKED BY	SHAHRAM SHAHRIARI	DATE REVISED	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	33	46

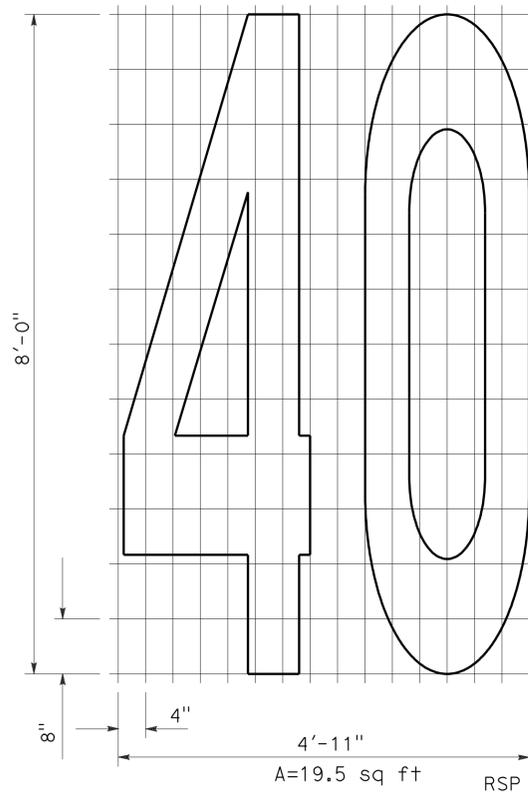
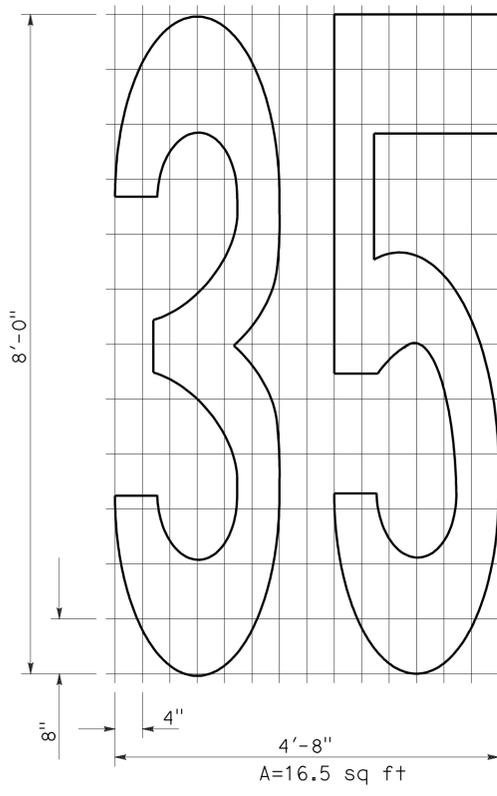
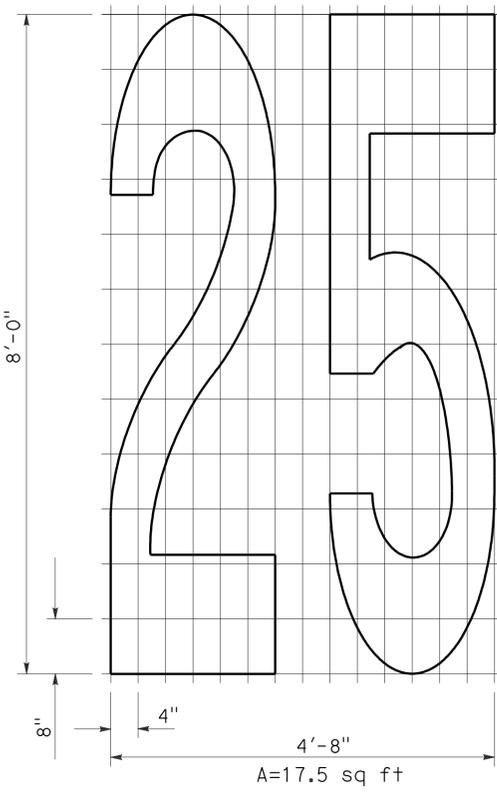
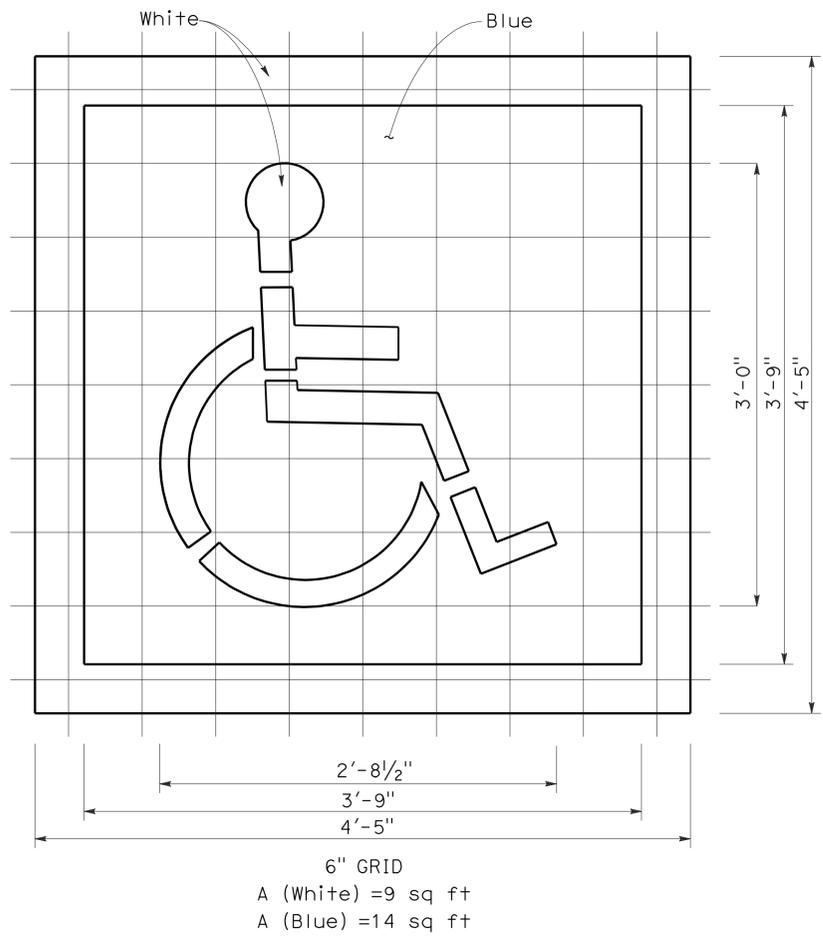
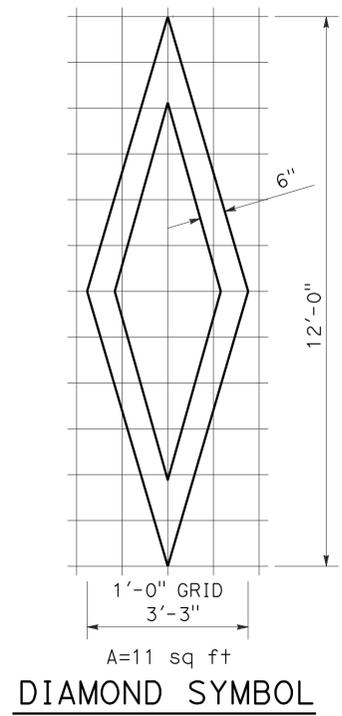
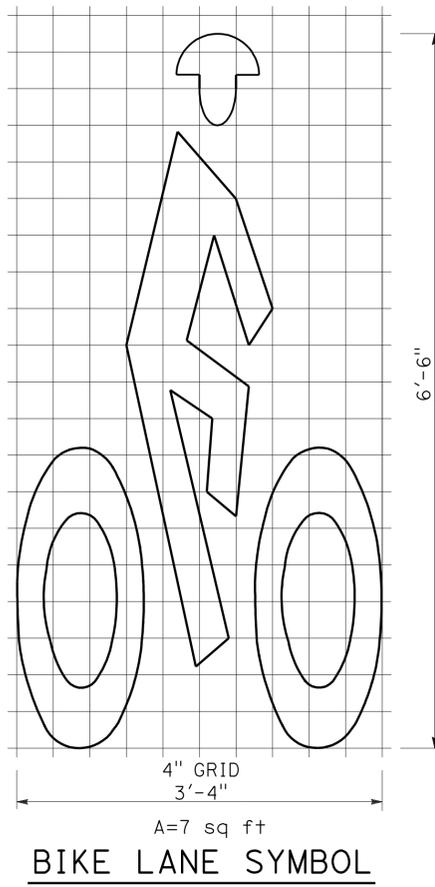
Donald E. Howe
 REGISTERED CIVIL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
 Donald E. Howe
 No. C46402
 Exp. 3-31-09
 CIVIL
 STATE OF CALIFORNIA

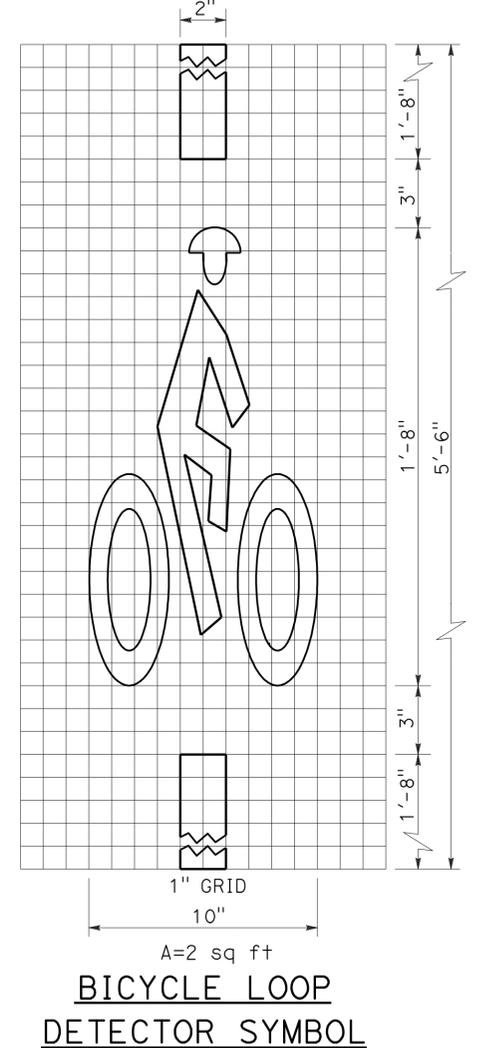
To accompany plans dated 7-13-09



*70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.



NUMERALS



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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
SYMBOLS AND NUMERALS**

NO SCALE

RSP A24C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A24C DATED MAY 1, 2006 - PAGE 11 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A24C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	34	46

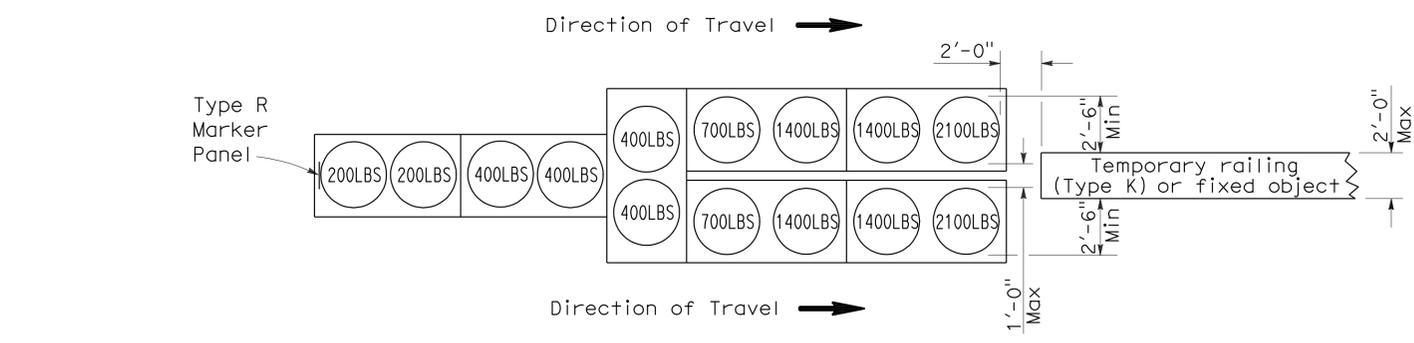
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

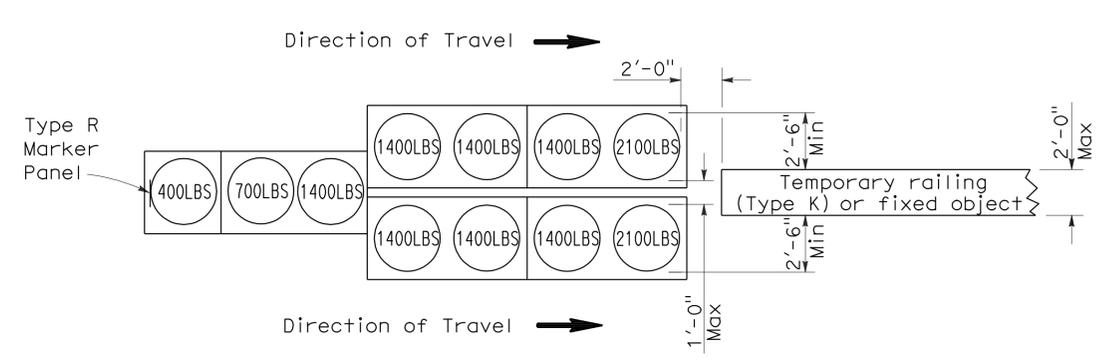
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 7-13-09



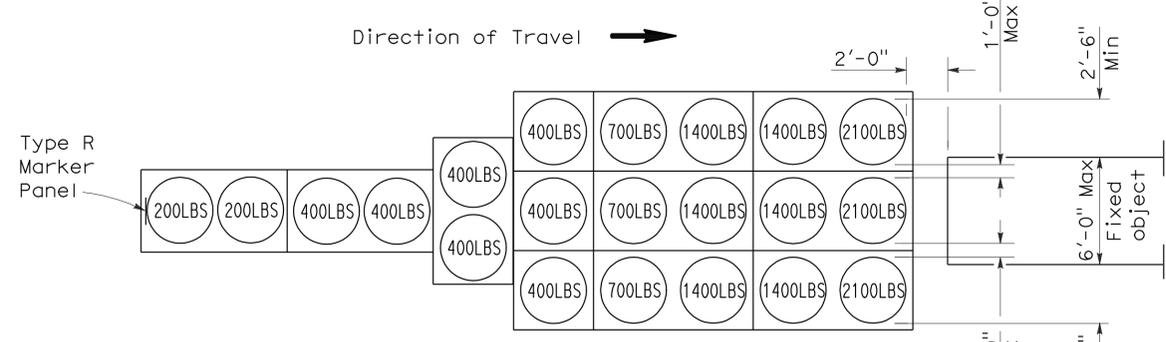
ARRAY 'TU14'

Approach speed 45 mph or more



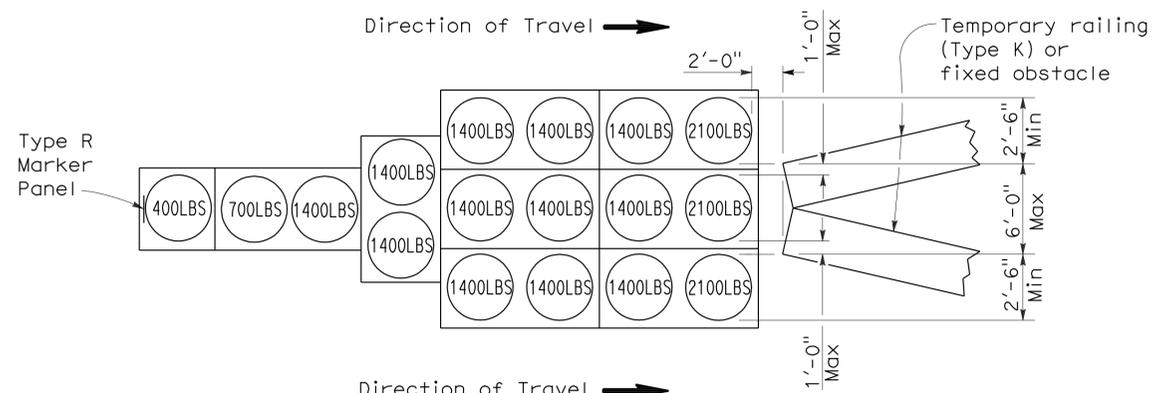
ARRAY 'TU11'

Approach speed less than 45 mph



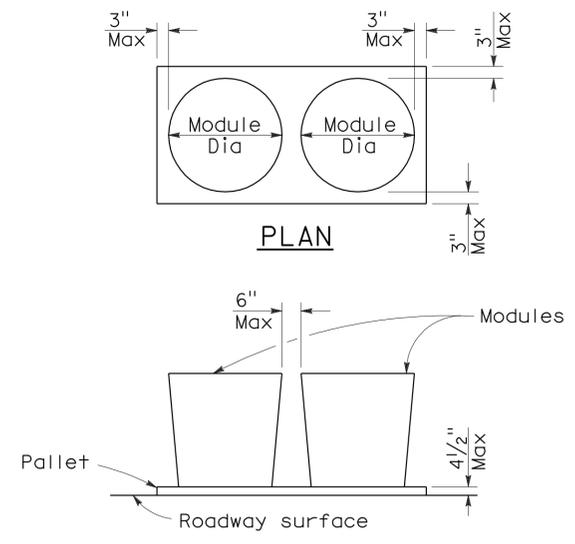
ARRAY 'TU21'

Approach speed 45 mph or more



ARRAY 'TU17'

Approach speed less than 45 mph



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	35	46

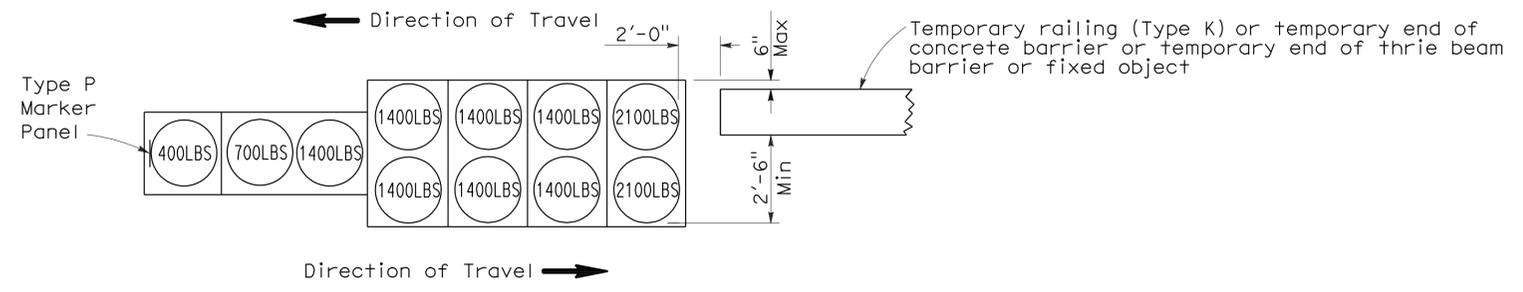
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

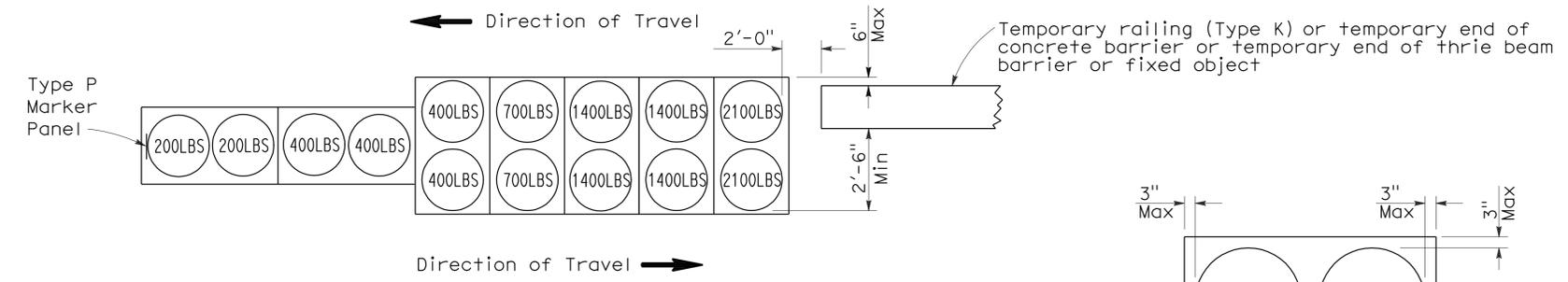
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 7-13-09



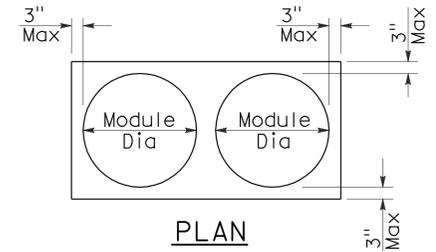
ARRAY 'TB11'

Approach speed less than 45 mph

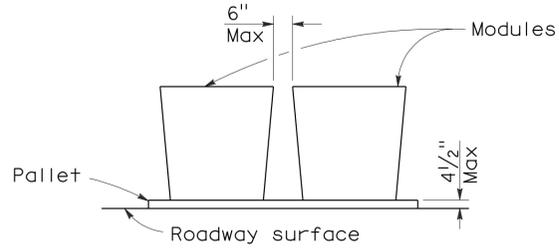


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	36	46

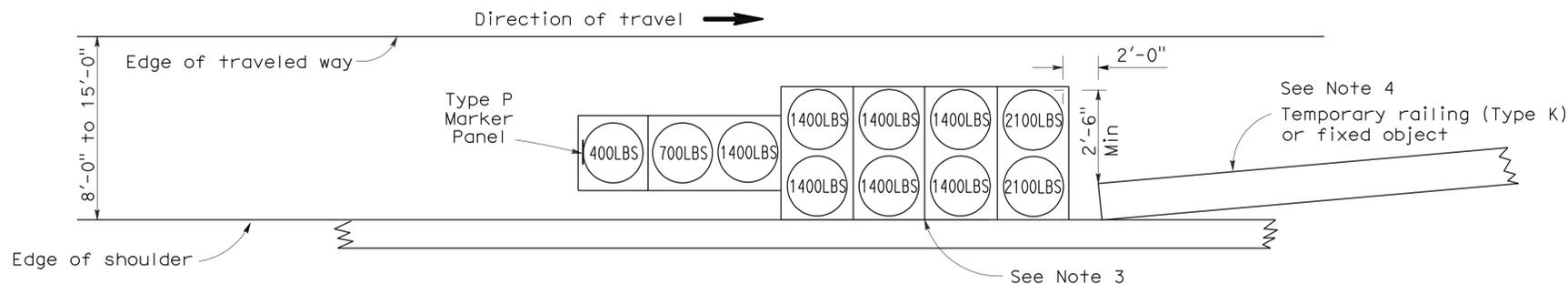
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

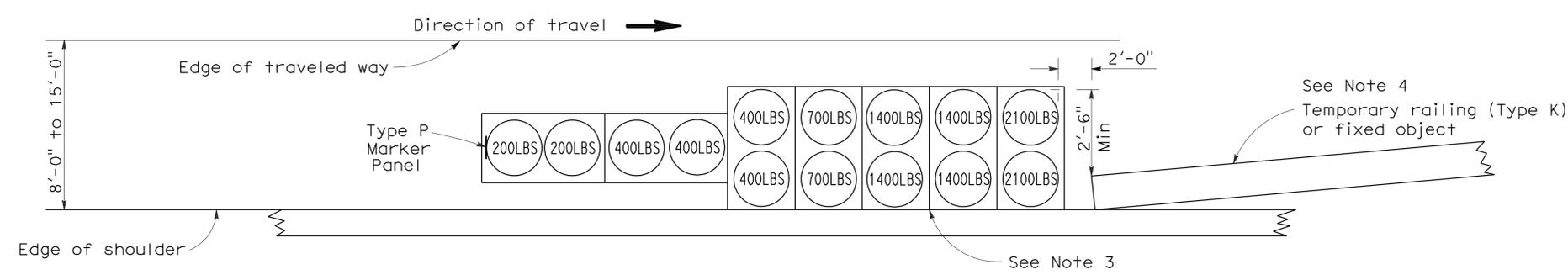
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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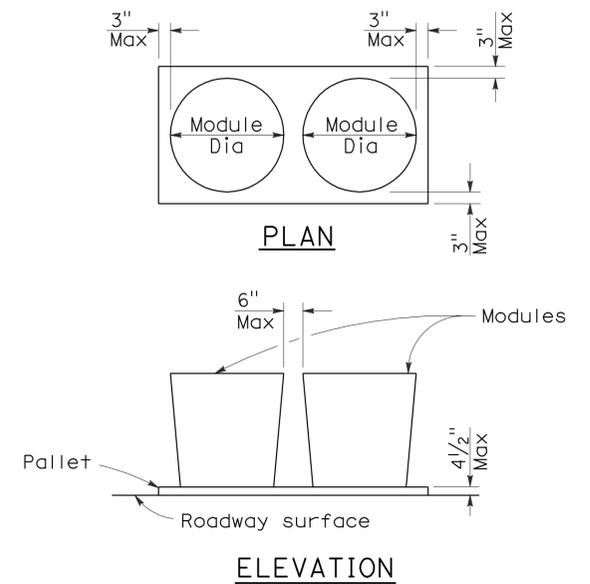
To accompany plans dated 7-13-09



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

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

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

NO SCALE
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	37	46

Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

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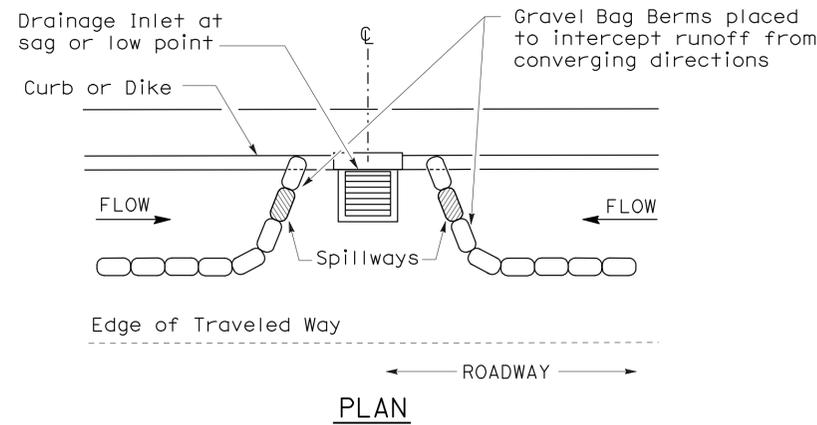
To accompany plans dated 7-13-09

STATE OF CALIFORNIA
LICENSED LANDSCAPE ARCHITECT
Robert B. Schott
11-04-08
08-11-08
Date

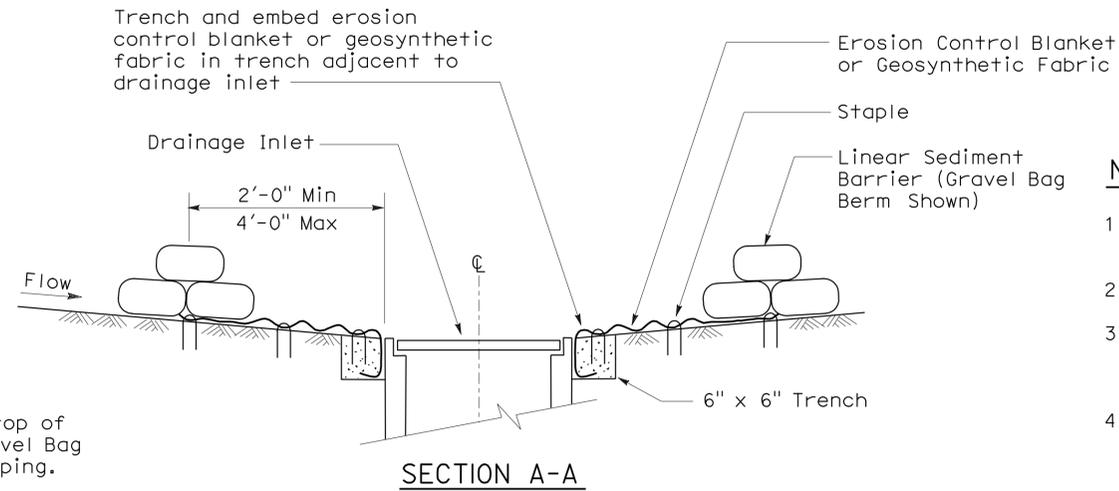
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



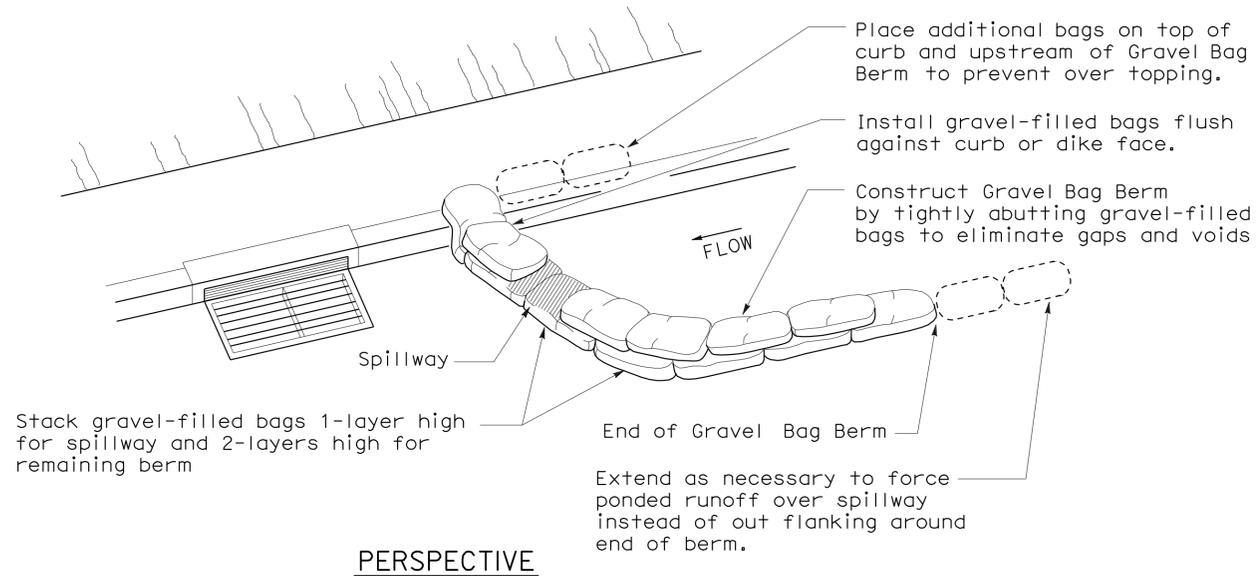
PLAN
CONFIGURATION FOR SAG POINT INLET
(GRAVEL BAG BERM)



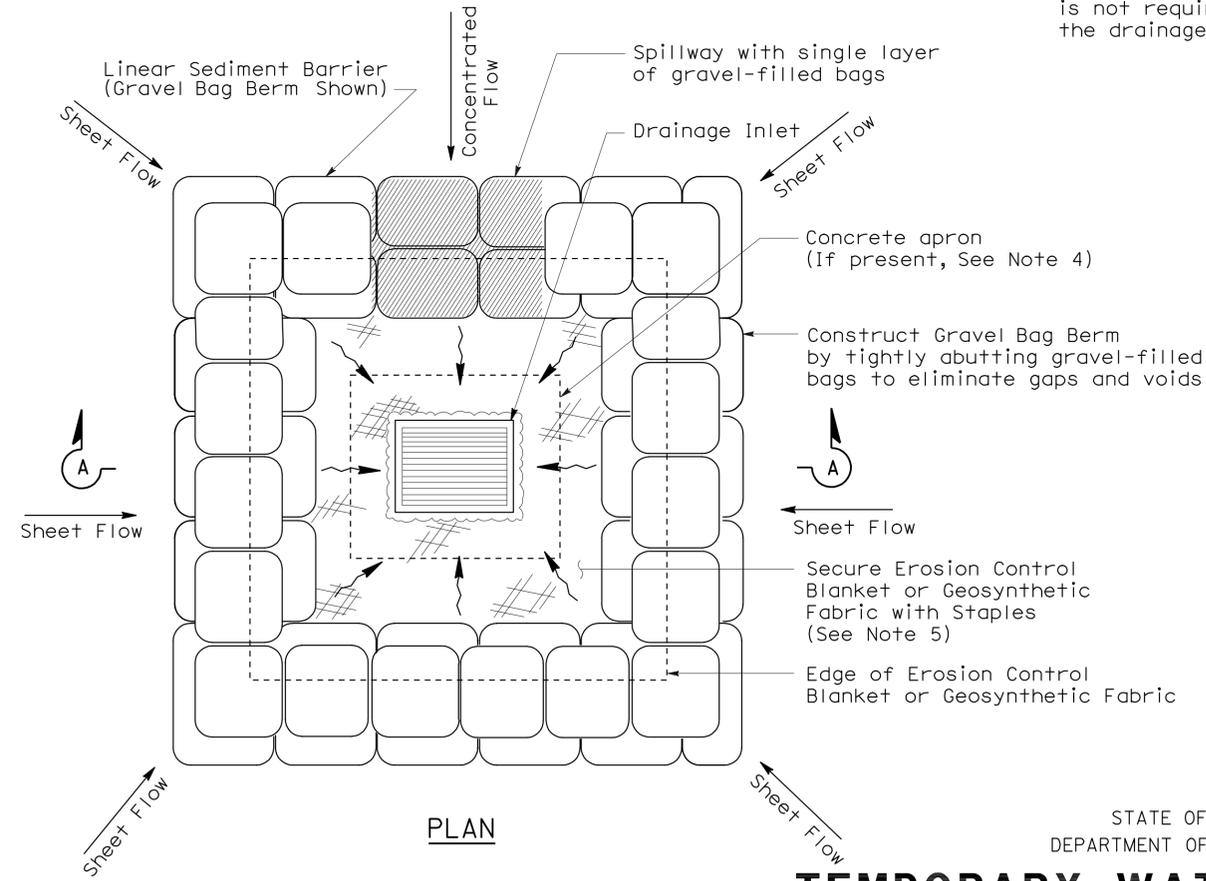
SECTION A-A

NOTES:

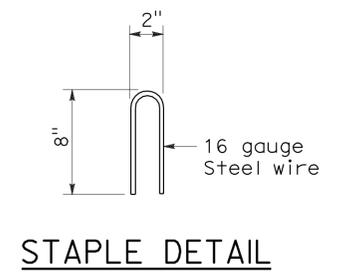
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



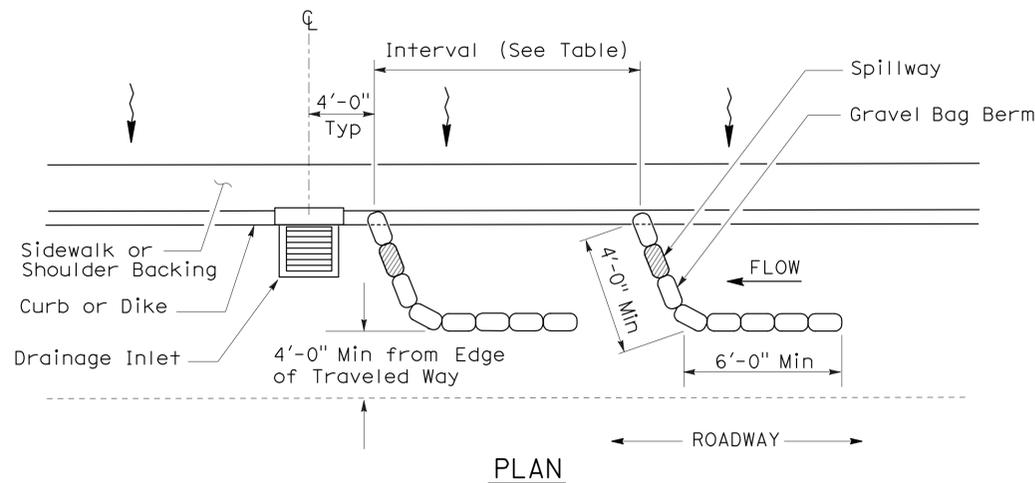
PERSPECTIVE



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



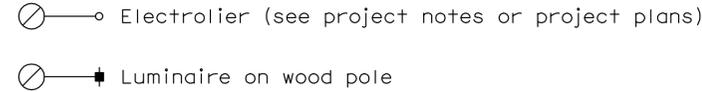
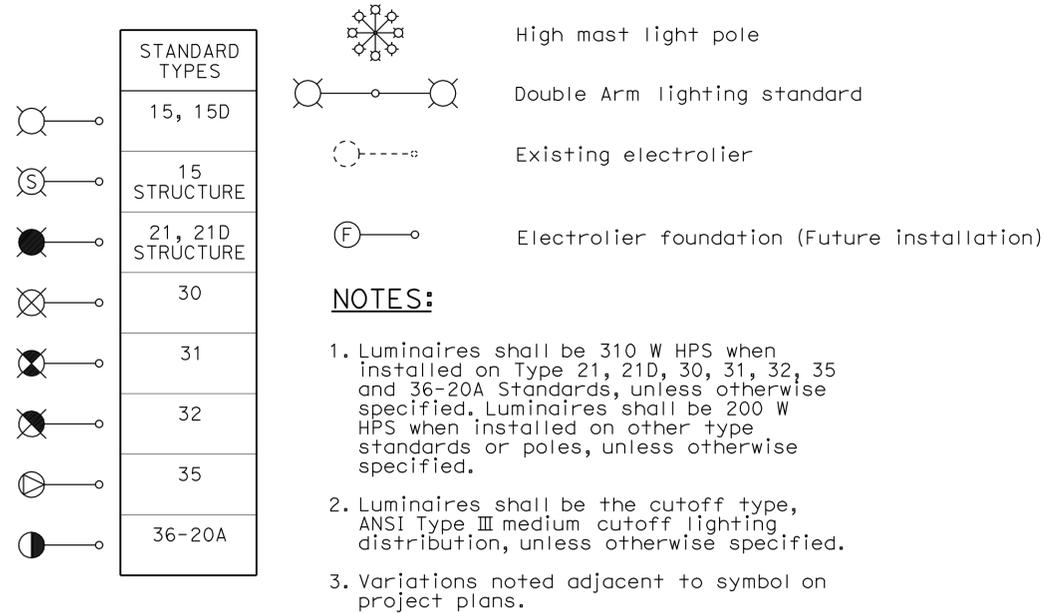
PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3A)
(GRAVEL BAG BERM)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T62

ELECTROLIERS



STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	38	46

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

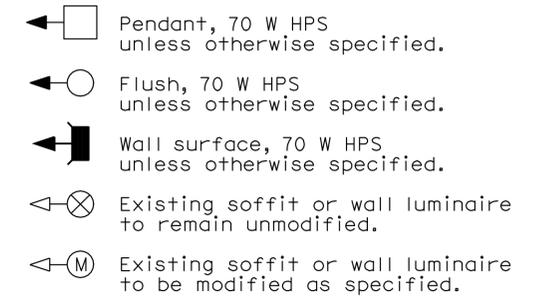
October 5, 2007
PLANS APPROVAL DATE

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

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

To accompany plans dated 7-13-09

SOFFIT AND WALL MOUNTED LUMINAIRES



NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	39	46

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

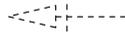
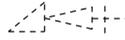
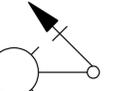
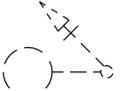
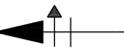
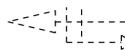
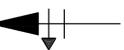
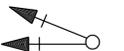
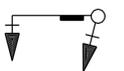
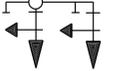
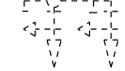
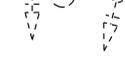
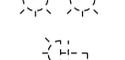
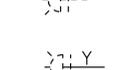
October 5, 2007
 PLANS APPROVAL DATE

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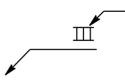
CONDUIT

PROPOSED	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 in/on structure or service pole

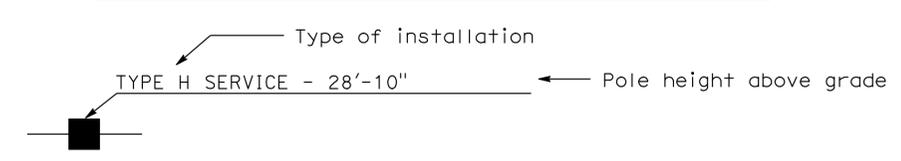
SIGNAL EQUIPMENT

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

SERVICE EQUIPMENT

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

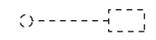
POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT Cont

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

NOTES:

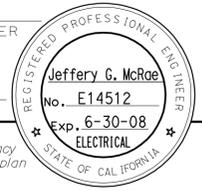
- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

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

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

REVISED STANDARD PLAN RSP ES-1B

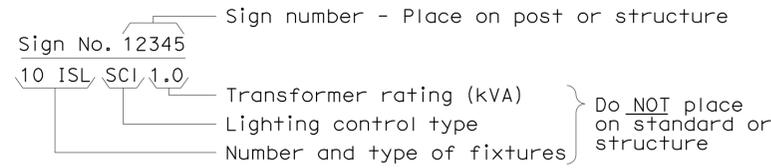
2006 REVISED STANDARD PLAN RSP ES-1B



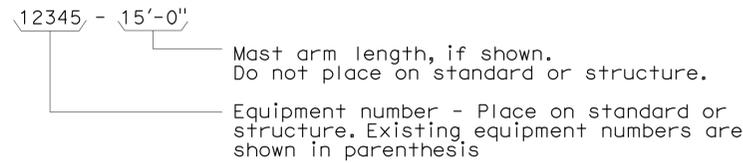
To accompany plans dated 7-13-09

EQUIPMENT IDENTIFICATION

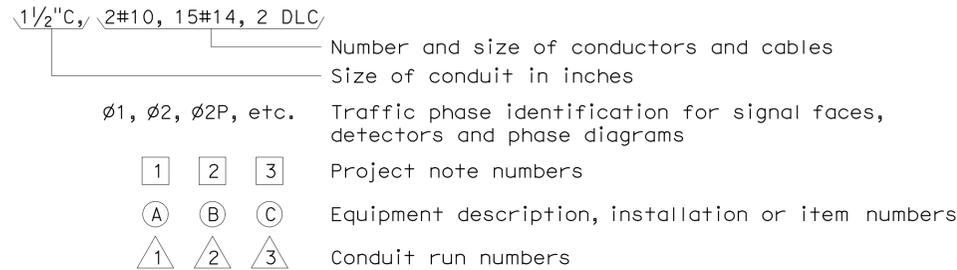
ILLUMINATED SIGN IDENTIFICATION NUMBER:



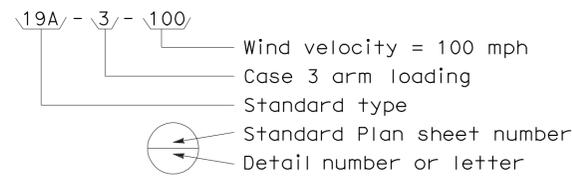
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



CONDUIT AND CONDUCTOR IDENTIFICATION:



SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
CMS	cms	Changeable message sign
		Closed circuit television camera
EMS	ems	Highway advisory radio pole and antenna
		Extinguishable message sign
M V	m v	Detection device M = Microwave sensor V = Video image sensor

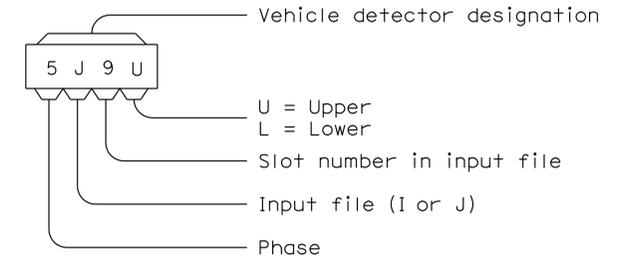
WIRING DIAGRAM LEGEND

P Pole	---- External conductor
CB Circuit breaker	— Conductor or bus
A Ampere	• Tie point
V Volt	— Contactor coil
M Metered	— Contactor, Contact NO
UM Unmetered	⊗ Terminal blocks
NB Neutral bus	— Contactor, Contact NC
GB Ground bus	— Enclosure bond
G Equipment grounding conductor	⋮ Grounding electrode
N Grounded conductor (Neutral)	— Circuit breaker
	Ⓜ Receptacle

PULL BOXES

PROPOSED	EXISTING	
		Pull box-No. 5 unless otherwise indicated or noted.
		Pull box-Additional designations or descriptions
3 = No. 3 1/2 pull box		(C) = Communications pull box
5 = No. 5 pull box		(E) = Pull box with extension
6 = No. 6 pull box		(S) = Sprinkler control pull box
7 = No. 7 (Ceiling pull box)		(21) = Anchor bolts and conduit for future installation of Type 21 Standard
8 = No. 8 (Pendant soffit pull box)		(T) = Traffic pull box
9 = No. 9 pull box		
9A = No. 9A pull box		

VEHICLE DETECTORS



PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
		Detector handhole
		Microwave or video detection zone

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

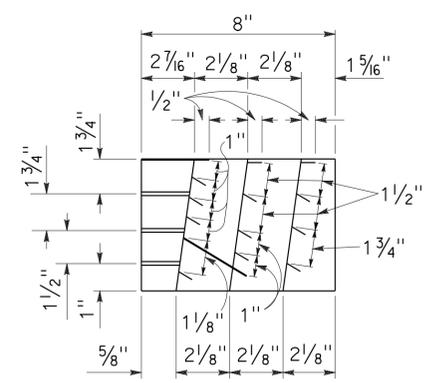
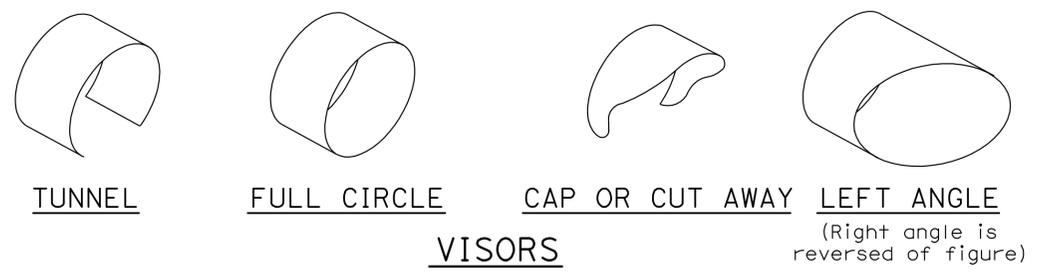
RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-1C

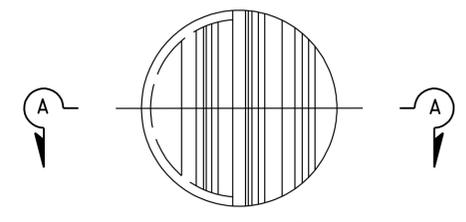
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	41	46

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.
 REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-10
 ELECTRICAL
 STATE OF CALIFORNIA

To accompany plans dated 7-13-09



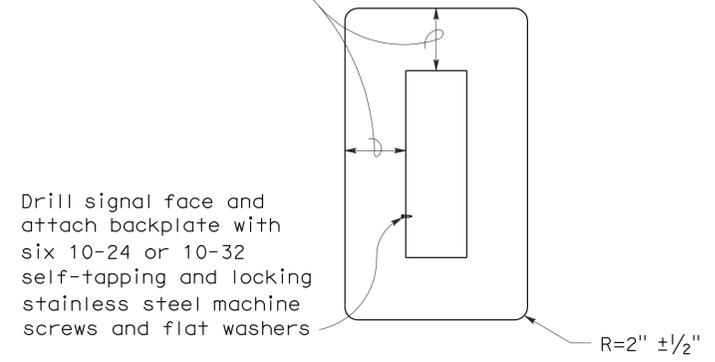
SECTION A-A



FRONT VIEW
DIRECTIONAL LOUVER

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

8" ± 1/2" for 8" sections
 5 1/2" ± 1/2" for 12" sections

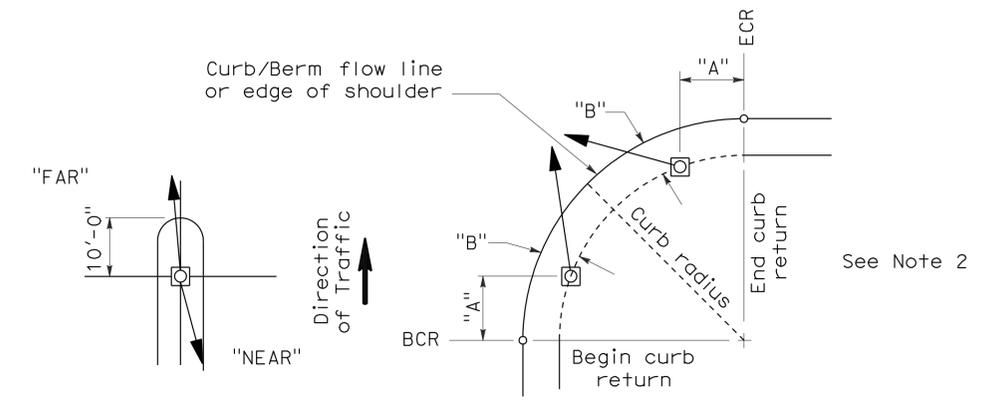


Drill signal face and attach backplate with six 10-24 or 10-32 self-tapping and locking stainless steel machine screws and flat washers

8" AND 12" SECTIONS

BACKPLATE

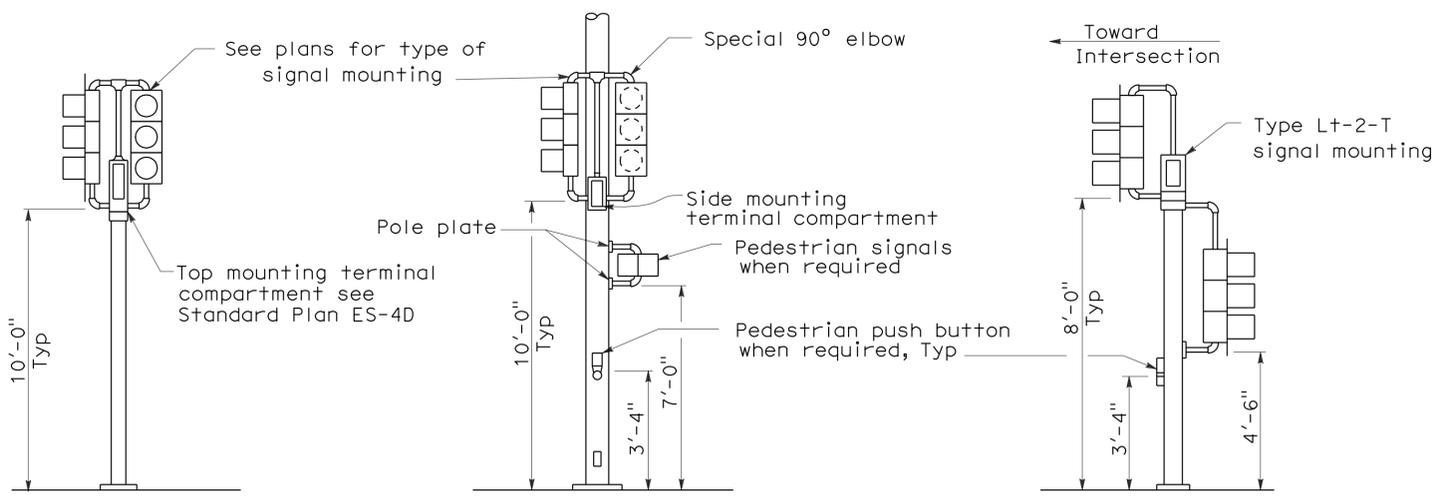
1/16" minimum thickness
 3001-14 aluminum, or plastic when specified



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.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS



TOP MOUNTED SIGNALS (TV)

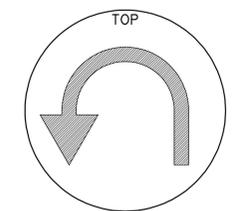
Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

SIDE MOUNTED SIGNALS (SV AND SP)

Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL

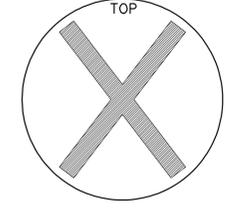
Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans



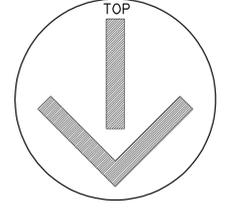
U-TURN SIGNAL FACE



BICYCLE SIGNAL FACE



LANE CONTROL SIGNAL FACE



LANE CONTROL SIGNAL FACE

TYPICAL SIGNAL INSTALLATIONS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN ES-4C DATED MAY 1, 2006 - PAGE 420 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4C

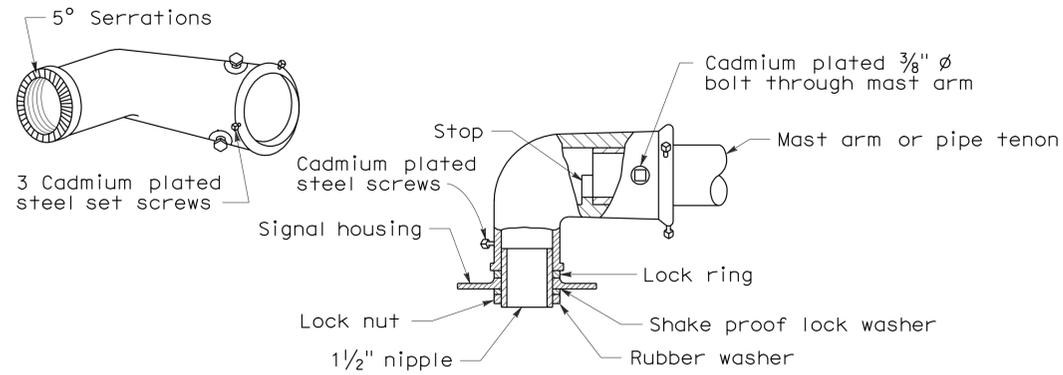
2006 REVISED STANDARD PLAN RSP ES-4C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	42	46

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
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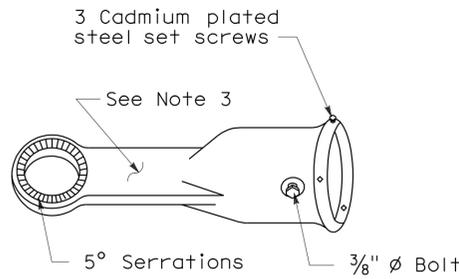
REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-10
 ELECTRICAL
 STATE OF CALIFORNIA

To accompany plans dated 7-13-09



MAST ARM MOUNTING - TYPE "MAT"

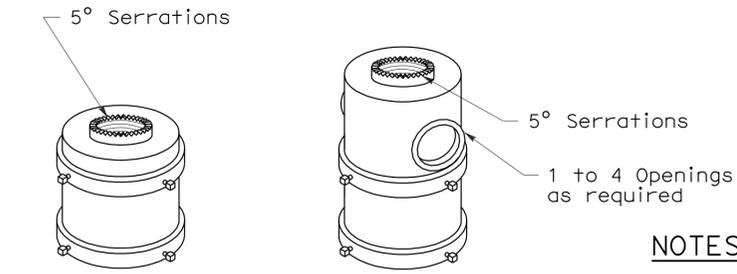
For 2 NPS pipe, see Note 1.



MAST ARM MOUNTING - TYPE "MAS"

For 2 NPS pipe. See Note 1.

SIGNAL SLIP FITTERS



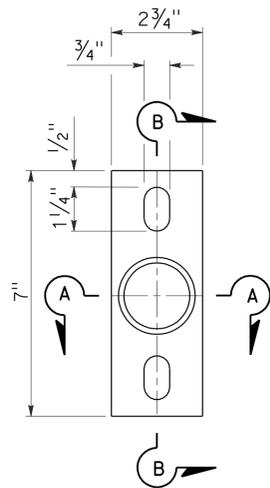
For one mounting For multiple mountings

TOP MOUNTINGS

For 4 NPS pipe, see Note 2.

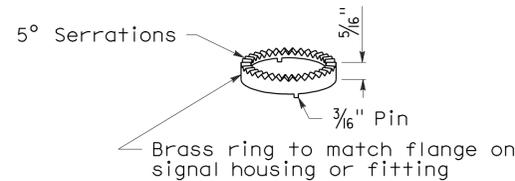
NOTES:

- After mast arm signal has been plumbed and secured, drill 1/16" hole through mast arm tenon in line with slip fitter hole. Place a cadmium plated 3/8" diameter galvanized bolt with washer under bolt head through hole and secure with washer, nut, and locknut. Seal openings between mast arm mountings and mast arm with mastic.
- (a) Threaded top mounted slip fitter openings shall be 1/2 NPS.
(b) Serrations in fittings shall match those on bottom of signal heads or in lock ring.
(c) Top opening shall be offset when backplate is used.
- Wireway shall have a cross section area of 0.95 square inch minimum. Minimum width of 1/2".



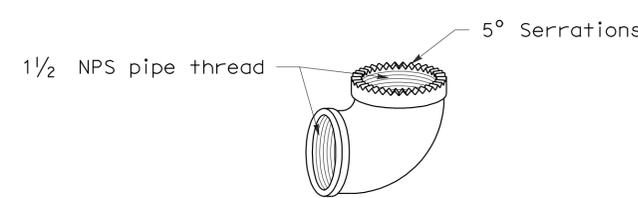
POLE PLATE

For side mountings



LOCK RING

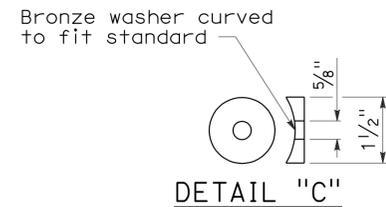
Use where locking ring is not integral with signal housing or fitting.



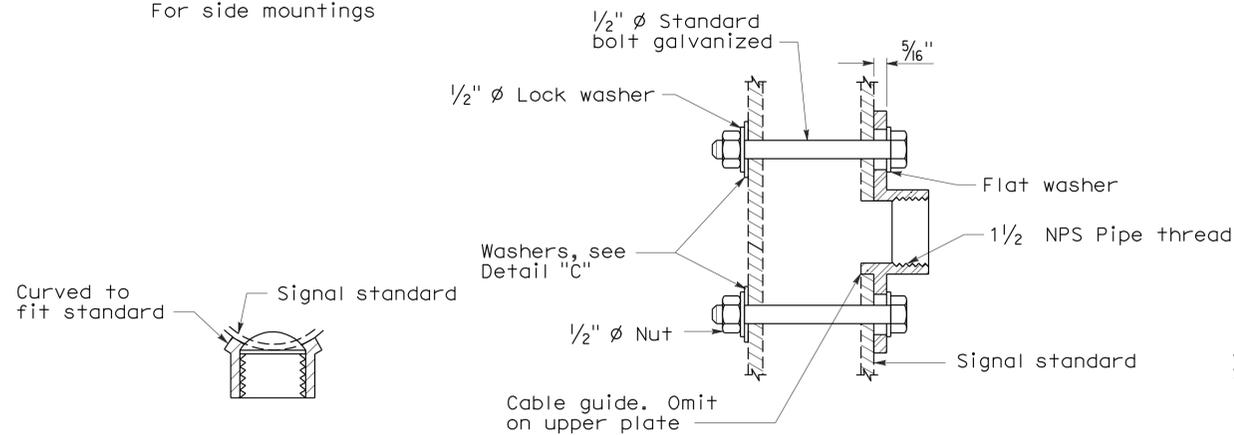
SPECIAL 90° ELBOW

One for each signal head, except those with special slip fitter mounting

MISCELLANEOUS MOUNTING HARDWARE

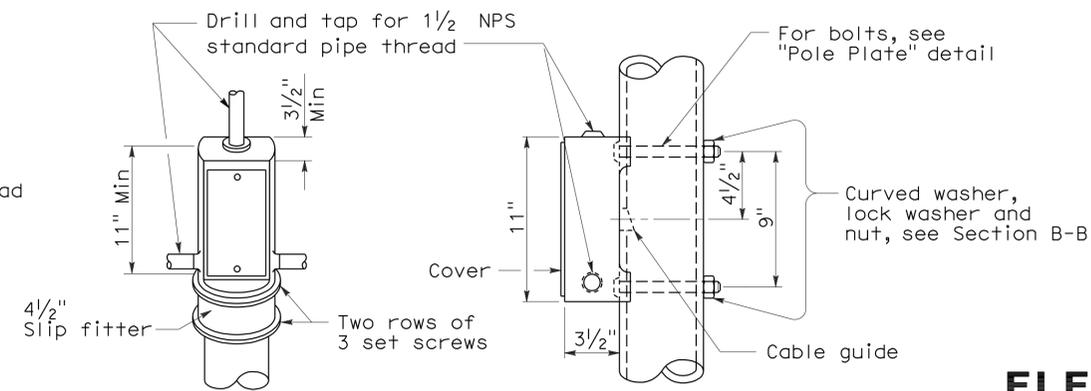


DETAIL "C"



SECTION A-A

SECTION B-B



TOP MOUNTING

SIDE MOUNTING

TERMINAL COMPARTMENTS

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4D DATED June 6, 2008 SUPERSEDES STANDARD PLAN ES-4D DATED MAY 1, 2006 - PAGE 421 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4D

2006 REVISED STANDARD PLAN RSP ES-4D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	43	46

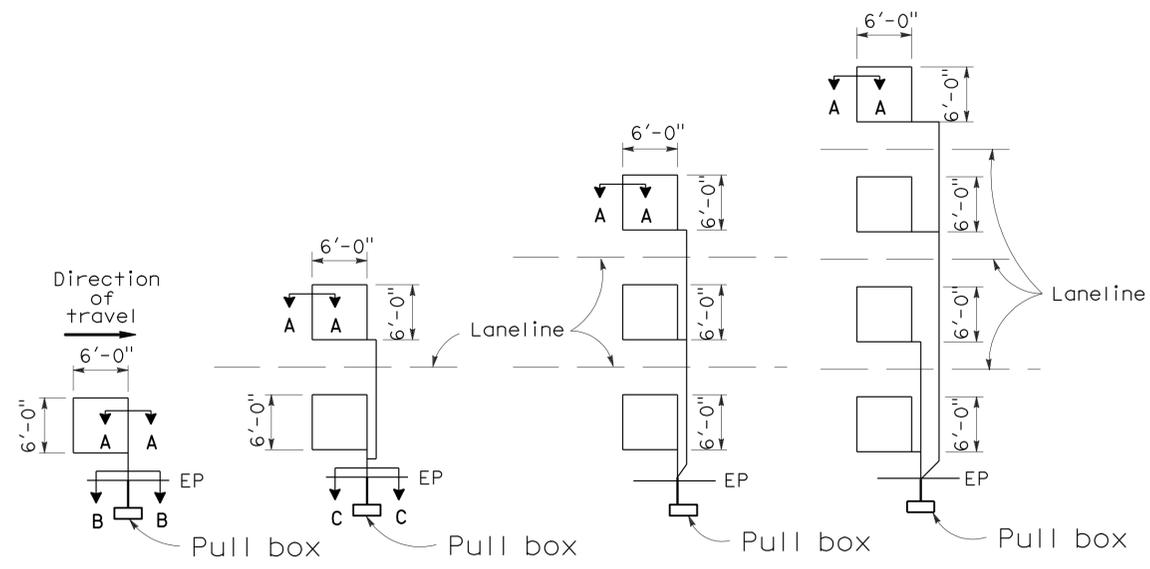
REGISTERED ELECTRICAL ENGINEER
 Jeffery G. McRae
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 ELECTRICAL
 STATE OF CALIFORNIA

October 5, 2007
 PLANS APPROVAL DATE

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LOOP INSTALLATION PROCEDURE

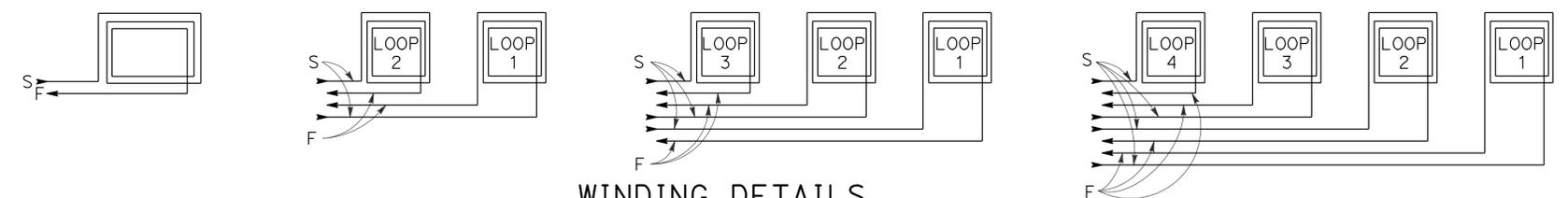
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no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



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

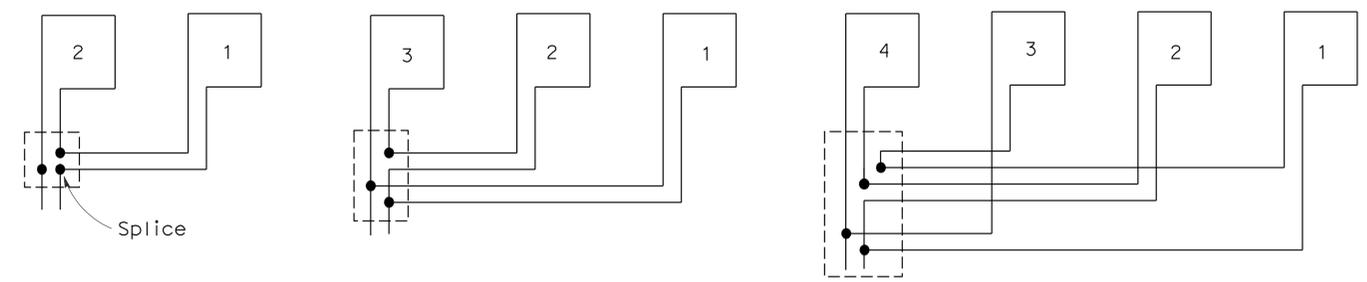
SAWCUT DETAILS

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



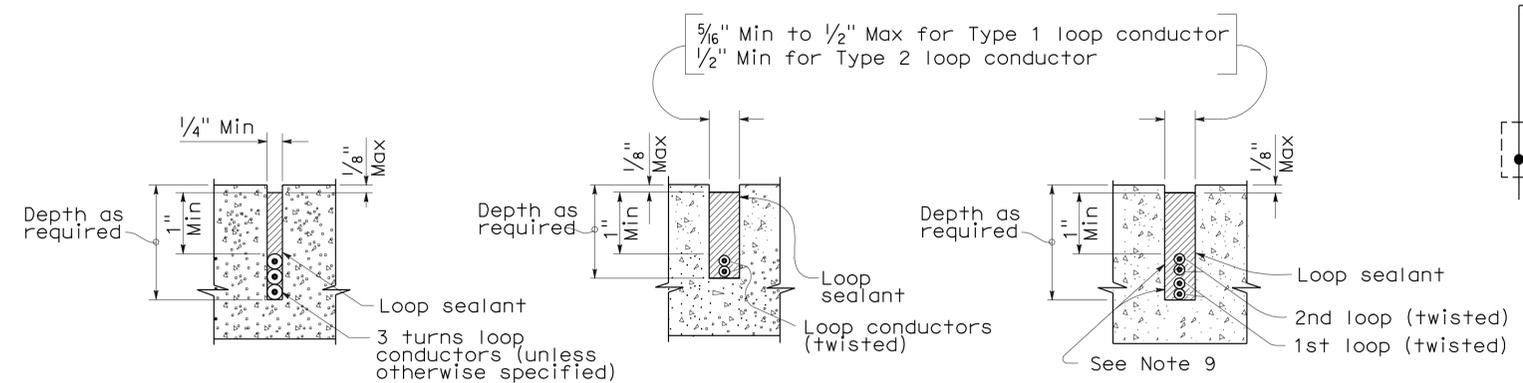
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



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

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NO SCALE

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

2006 REVISED STANDARD PLAN RSP ES-5A

To accompany plans dated 7-13-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	44	46

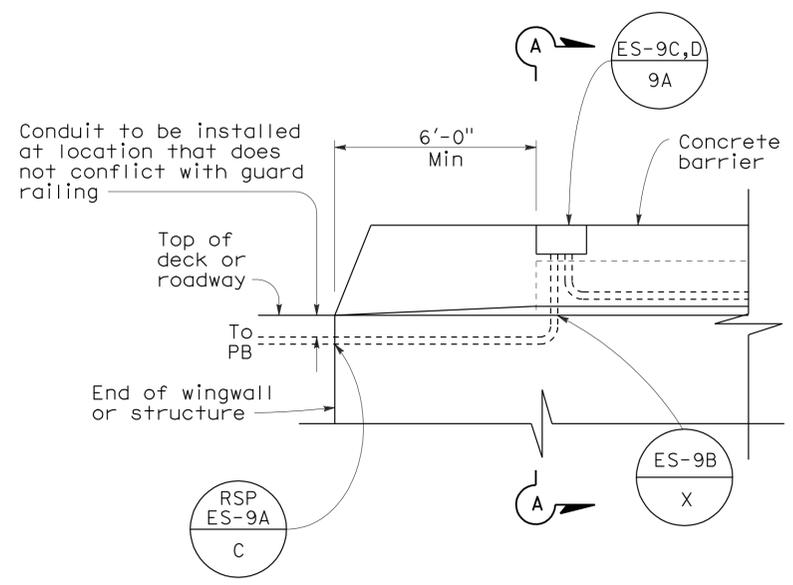
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE

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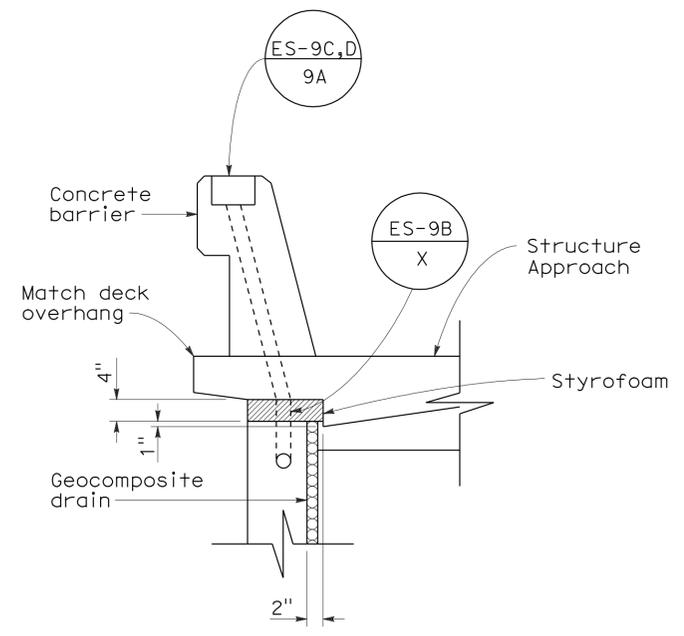
REGISTERED PROFESSIONAL ENGINEER
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 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

To accompany plans dated 7-13-09

2006 REVISED STANDARD PLAN RSP ES-9A

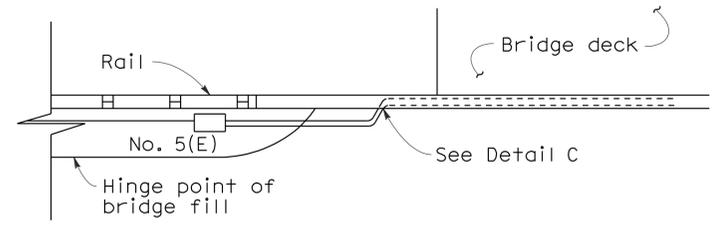


SIDEVIEW

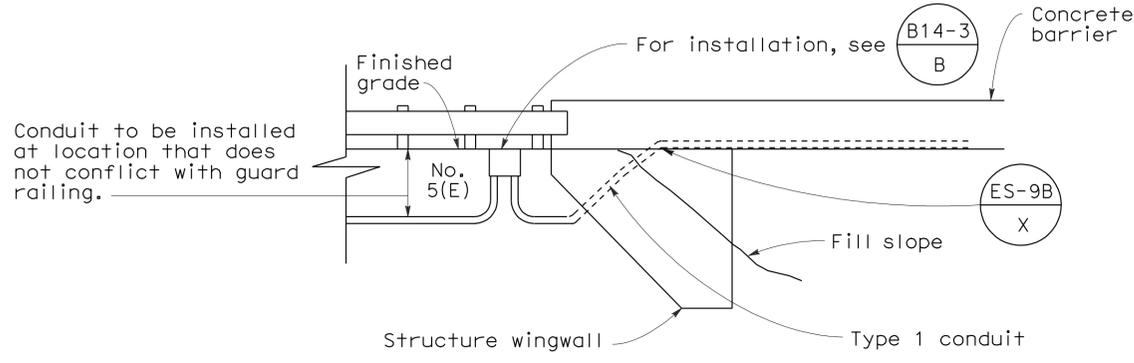


SECTION A-A

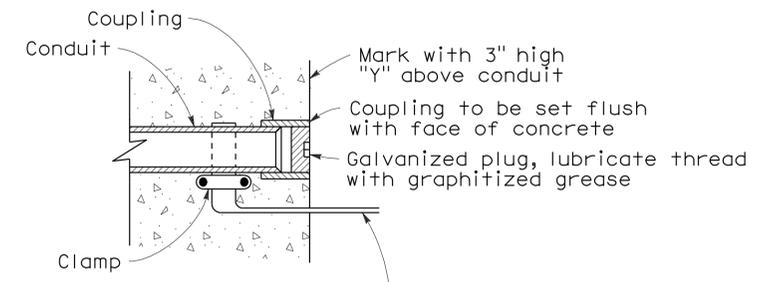
**DETAIL A
CONDUIT TERMINATION**



TOP VIEW



**SIDE VIEW
DETAIL I
CONDUIT TERMINATION**



**DETAIL C
CONDUIT TERMINATION**

Copper bonding strap install only at structure construction joint, extend at least 6" from face of concrete

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(ELECTRICAL DETAILS
STRUCTURE INSTALLATIONS)**

NO SCALE

RSP ES-9A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-9A DATED MAY 1, 2006 - PAGE 454 OF THE STANDARD PLANS BOOK DATED MAY 2006.

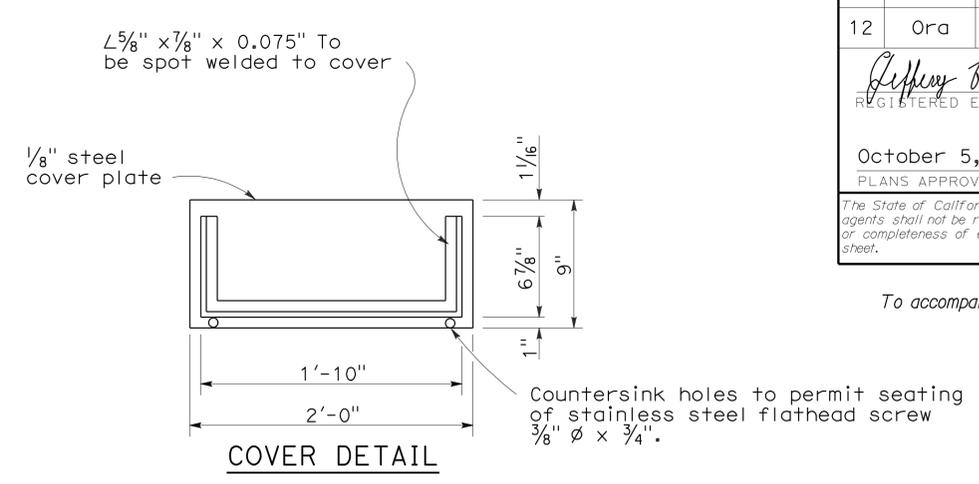
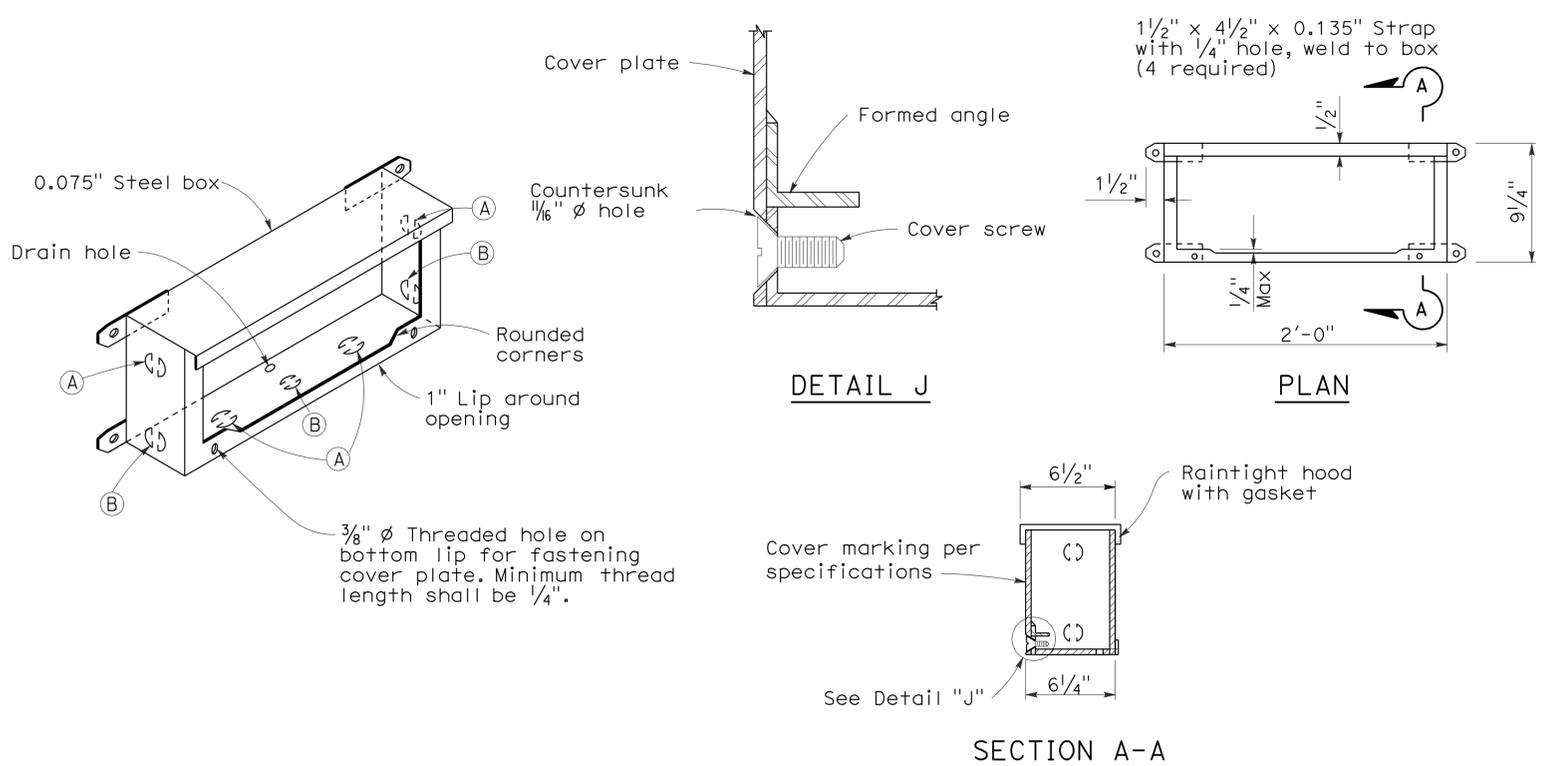
REVISED STANDARD PLAN RSP ES-9A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	45	46

REGISTERED ELECTRICAL ENGINEER
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 STATE OF CALIFORNIA

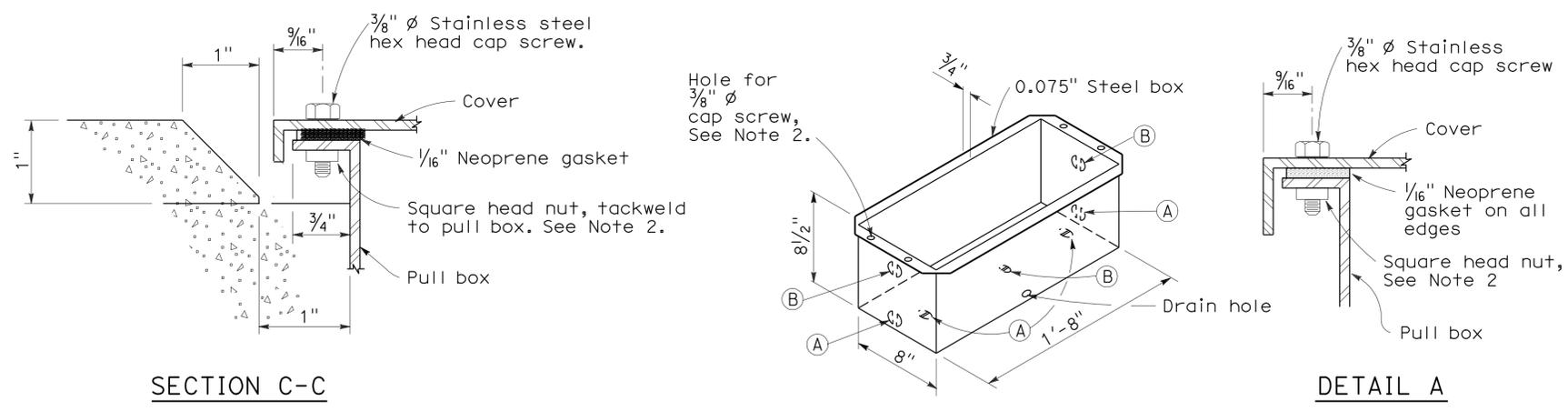
October 5, 2007
 PLANS APPROVAL DATE

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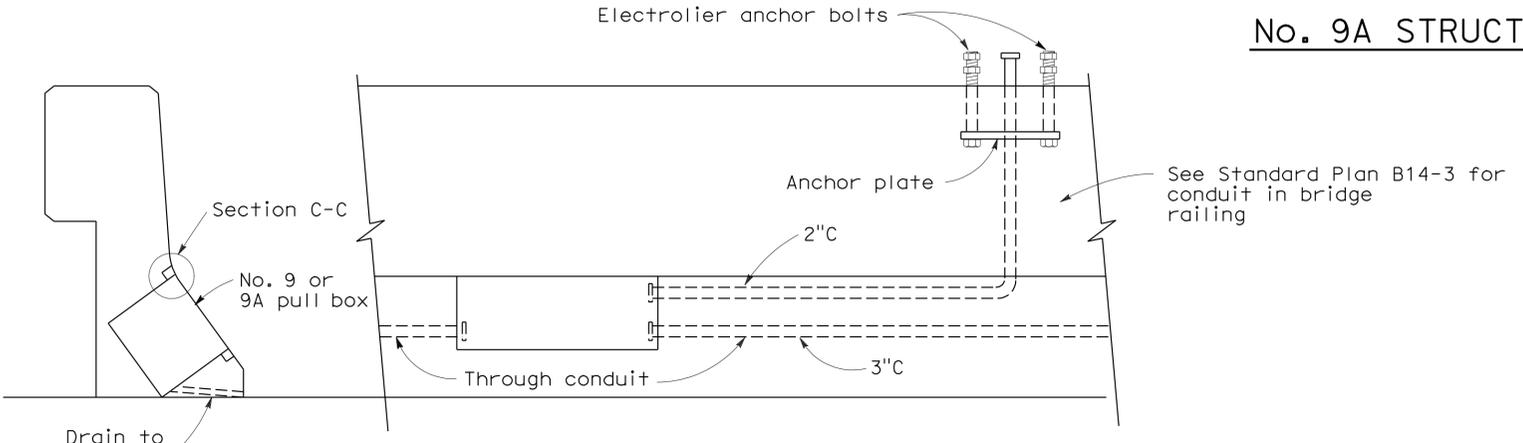
INSTALLATION NOTE:
 Box shall be parallel to top of railing. Close cover box during pouring with 1/4" plywood of sufficient size to provide 1:1 chamfer on 3 sides of cover. Upper edge of plywood shall fit against lower edge of raintight hood.

No. 9 STRUCTURE PULL BOX



- NOTES:** No. 9 and 9A Pull Box
- Corner joints shall be lapped and secured by spot welding or riveting.
 - Where cap screws are used to attach cover to box, either of the following methods of providing adequate threading may be used:
 - Tack weld square nut to bottom of flange (Total 4), or
 - Tack weld a 1/4" x 5/8" x 8" bar beneath flange (Total 2).
 - Pound knockouts flat after punching.
 - Multiple size knockouts shall not be permitted.
 - Pull box covers shall be marked as shown on Standard Plan ES-8.

No. 9A STRUCTURE PULL BOX



- KNOCKOUT SCHEDULE**
No. 9 AND 9A PULL BOX
- (A) 2"C, 1 each end, 2 on bottom.
 - (B) 3"C, 1 each end, 1 on bottom.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
 (ELECTRICAL DETAILS
 STRUCTURE INSTALLATIONS)**

2006 REVISED STANDARD PLAN RSP ES-9C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5,57	33.2/34.0, 10.9/11.2	46	46

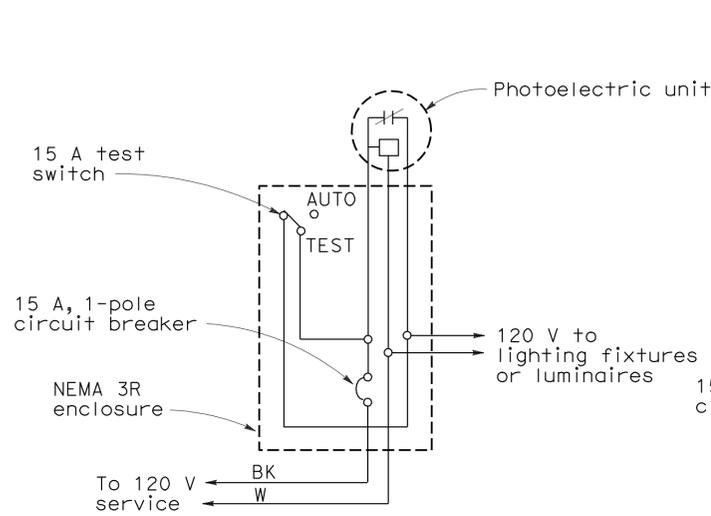
Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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 No. E14512
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NOTES: (FOR LIGHTING AND SIGN ILLUMINATION CONTROL)

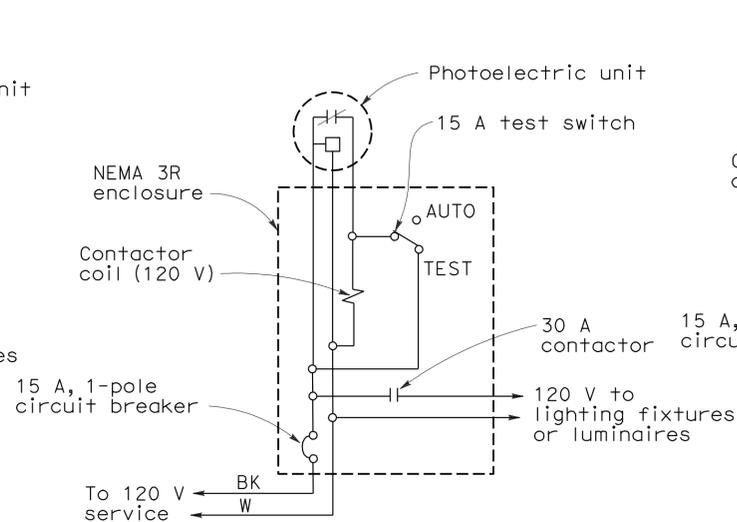
1. The ballast voltages of lighting fixtures and luminaires shall match line service voltages.
2. Voltage rating of photoelectric controls shall conform to the service voltage indicated on the plans.
3. Terminal strip shall be provided for wiring to fixtures.
4. Type SC1A, SC2A, SC3A controls are similar to Types SC1, SC2 and SC3 controls respectively except test switch and wiring are not required.

To accompany plans dated 7-13-09



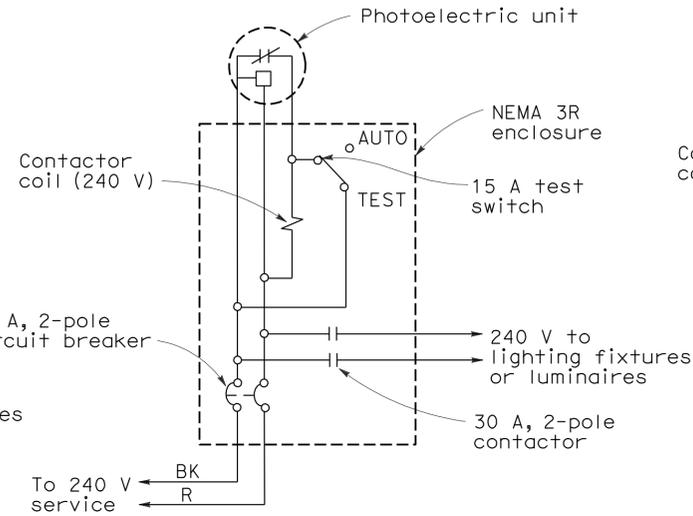
TYPE LC1 CONTROL

For 120 V unswitched circuit with no more than 800 W load.



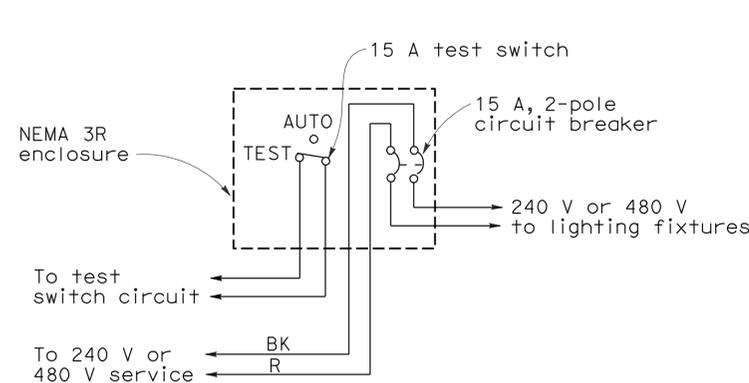
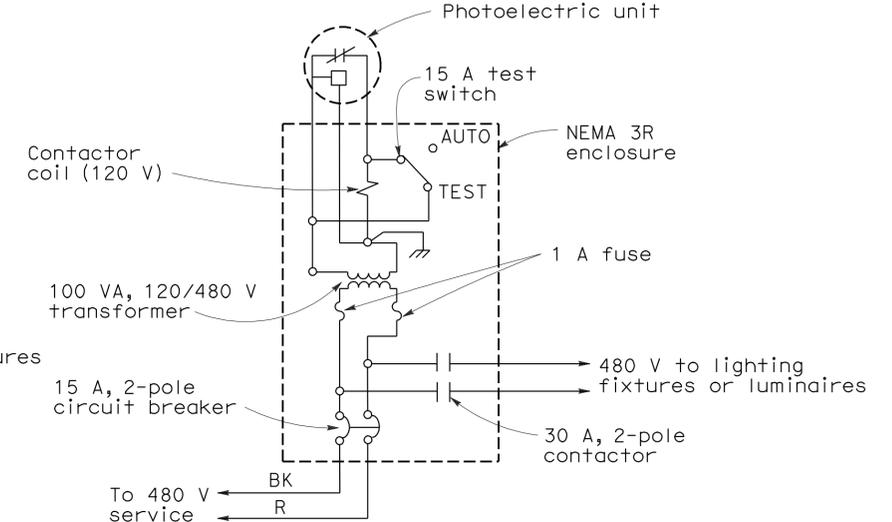
TYPE LC2 CONTROL

For 120 V unswitched circuit



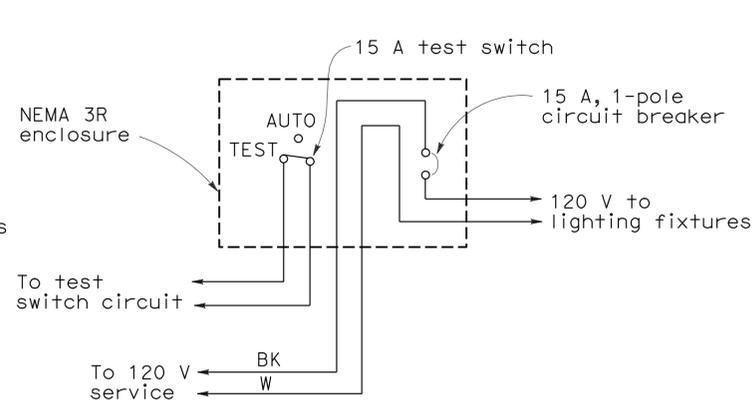
TYPE LC3 CONTROL

For 240 V and 480 V unswitched circuits



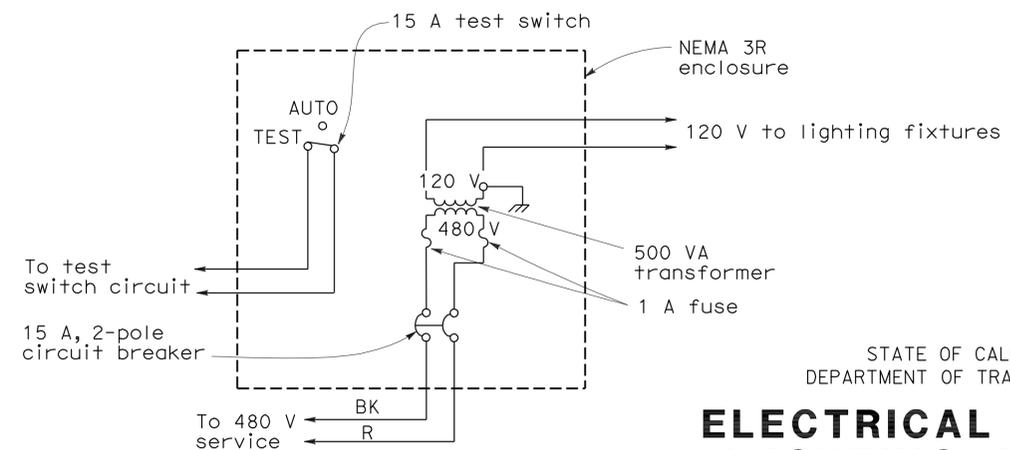
TYPE SC1 CONTROL

For 240 V or 480 V switched circuit, see Note 4 for Type SC1A



TYPE SC2 CONTROL

For 120 V switched circuit, see Note 4 for Type SC2A



TYPE SC3 CONTROL

For 480 V switched sign circuit, see Note 4 for Type SC3A

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LIGHTING AND SIGN
 ILLUMINATION CONTROL)**

NO SCALE

RSP ES-15D DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-15D DATED MAY 1, 2006 - PAGE 472 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-15D

2006 REVISED STANDARD PLAN RSP ES-15D