

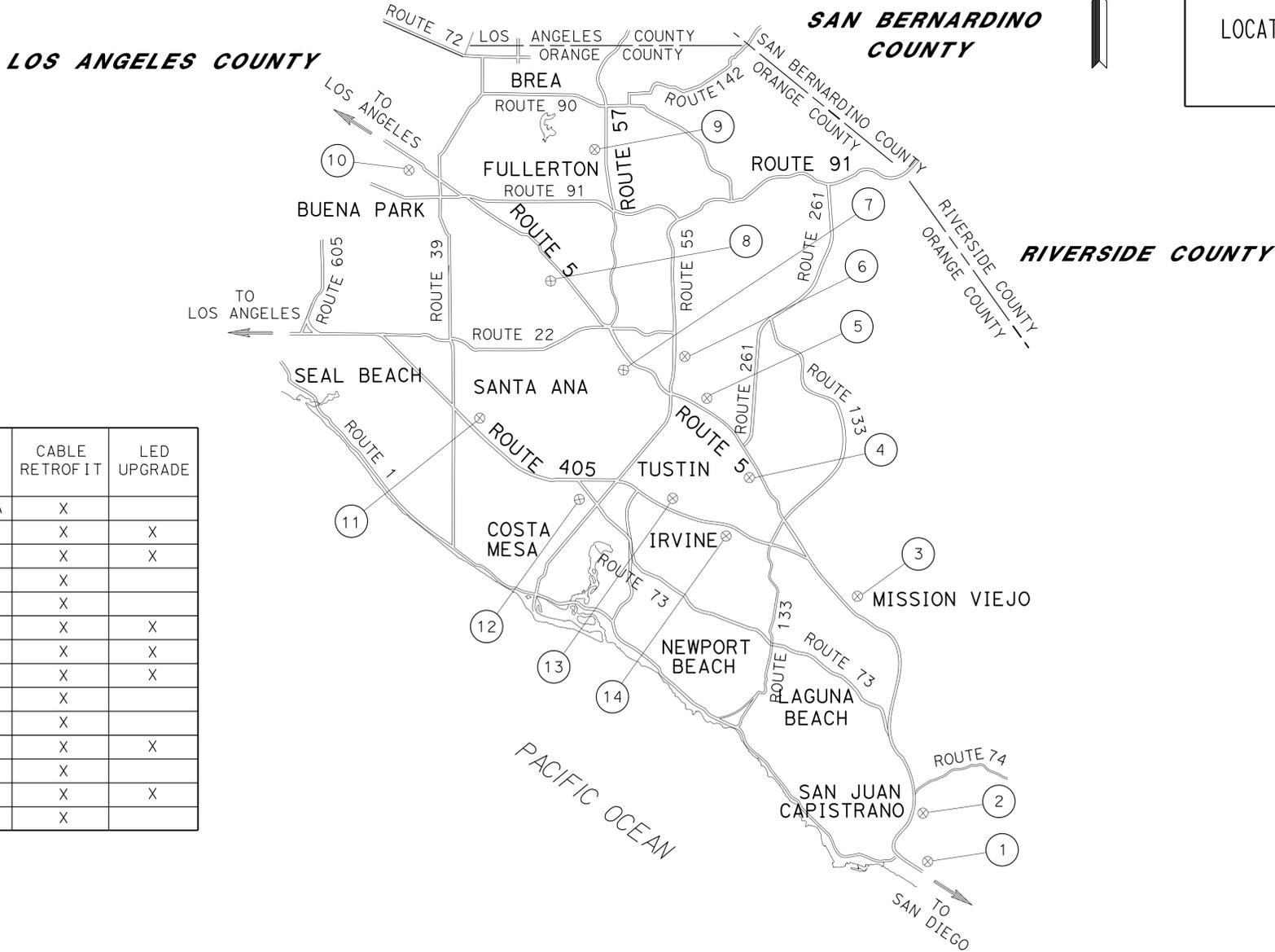
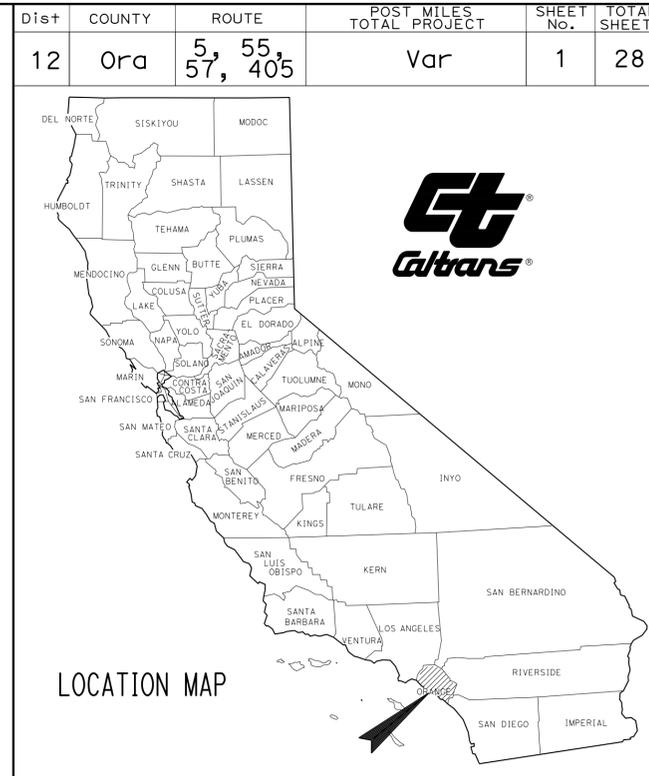
INDEX OF PLANS

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2	CONSTRUCTION AREA SIGNS
3-9	TRAFFIC HANDLING PLAN
10	TRAFFIC HANDLING DETAILS
11	TRAFFIC HANDLING QUANTITIES
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13	QUANTITIES
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20-28	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA ACNH-X059(054)E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN ORANGE COUNTY
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



LOCATIONS OF CONSTRUCTION

LOCATION (X)	CMS No.	ROUTE	Dir	PM	CROSS STREET	CABLE RETROFIT	LED UPGRADE
1	74	5	NB	4.40	Ave VISTA HERMOSA	X	
2	31	5	NB	8.95	SAN JUAN CREEK	X	X
3	95	5	NB	19.00	EL TORO Rd	X	X
4	75	5	SB	24.80	JEFFERY Rd	X	
5	93	5	NB	28.50	TUSTIN RANCH Rd	X	
6	85	55	NB	11.90	E 17 TH St	X	X
7	92	5	SB	32.40	E 17TH St	X	X
8	44	5	SB	35.50	ANAHEIM Blvd	X	X
9	99	57	SB	18.40	YORBA LINDA Blvd	X	
10	54	5	SB	44.00	ARTESIA Blvd	X	
11	71	405	NB	15.10	MAGNOLIA St	X	X
12	70	55	SB	5.30	PAULARINO Ave	X	
13	87	405	NB	7.30	HARVARD Blvd	X	X
14	76	405	SB	4.05	JEFFERY Rd	X	

NO SCALE

PROJECT MANAGER
BOB BAZARGAN
 DESIGN ENGINEER
LAWRENCE LE

02-06-14
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER



April 7, 2014
 PLANS APPROVAL DATE

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

CONTRACT No.	12-0M3704
PROJECT ID	1212000030

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	5,55, 57, 405	Var	2	28

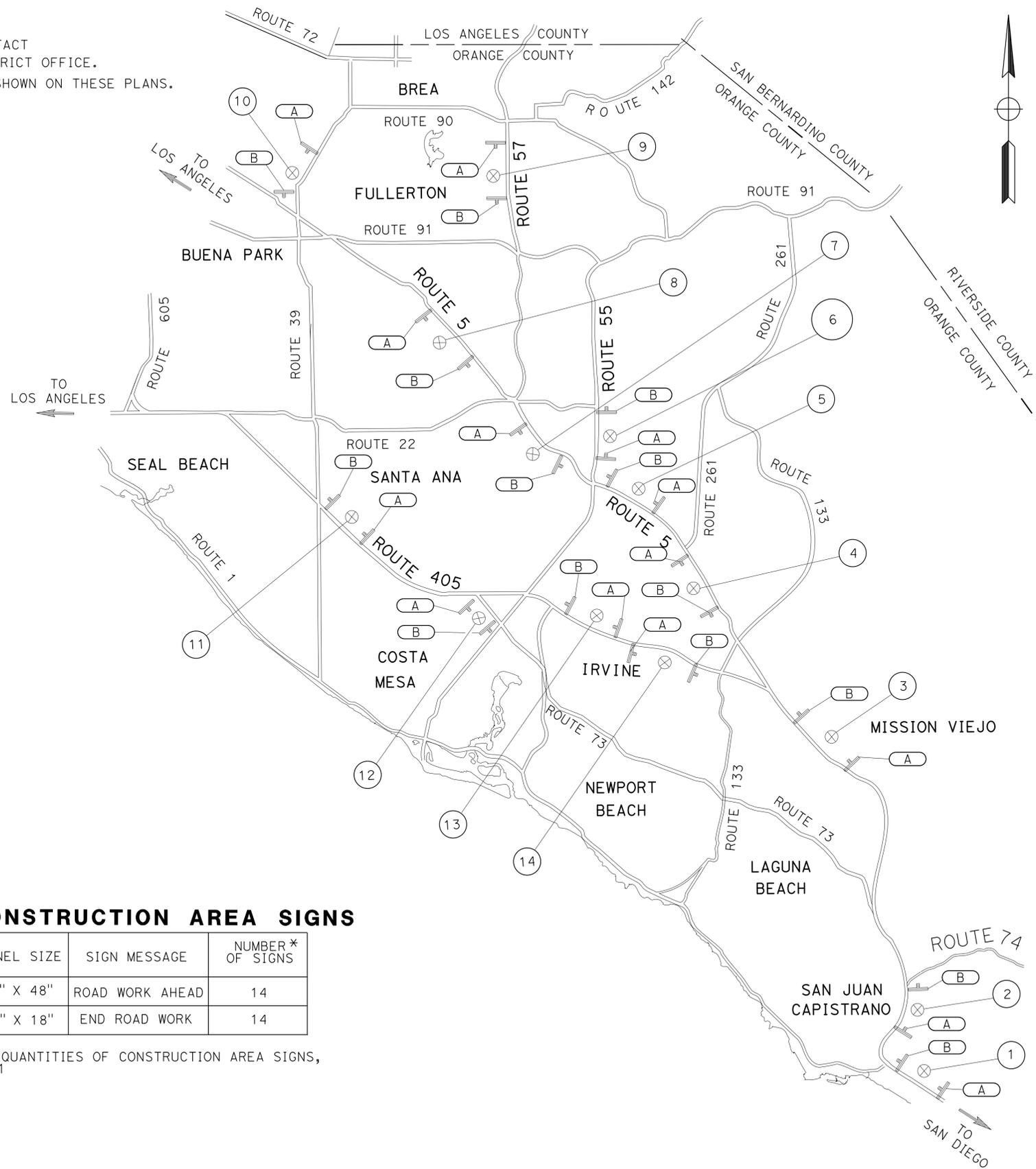
Lawrence Le 01-24-14
 REGISTERED CIVIL ENGINEER DATE
 04-07-14
 PLANS APPROVAL DATE

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
LAWRENCE LE
 No. C 57405
 Exp. 12/31/15
 CIVIL
 STATE OF CALIFORNIA

NOTES:

- 1) FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- 2) EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



PORTABLE CONSTRUCTION AREA SIGNS

SIGN	TYPE	PANEL SIZE	SIGN MESSAGE	NUMBER* OF SIGNS
A	W20-1	48" X 48"	ROAD WORK AHEAD	14
B	G20-2	36" X 18"	END ROAD WORK	14

* FOR ADDITIONAL QUANTITIES OF CONSTRUCTION AREA SIGNS, SEE SHEET THQ-1

CONSTRUCTION AREA SIGNS

NO SCALE

CS - 1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR
 KAMRAN MAZHAR

CALCULATED/DESIGNED BY
 CHECKED BY

LAWRENCE LE
 SEYED DADRAS

REVISED BY
 DATE REVISED

x
 x
 x
 x
 x

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 KAMRAN MAZHAR
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 CALCULATED/DESIGNED BY
 LAWRENCE LE
 SEYED DADRAS
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	5,55, 57, 405	Var	3	28

Lawrence 01-24-14
 REGISTERED CIVIL ENGINEER DATE
 04-07-14
 PLANS APPROVAL DATE
 No. C 57405
 Exp. 12/31/15
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

- 1) FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- 2) EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.
- 3) LOCATION OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE, EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- 4) FOR ADDITIONAL QUANTITIES OF CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.
- 5) EXACT MESSAGE TO BE DISPLAYED ON THE PCMS WILL BE DETERMINED BY THE ENGINEER.

LEGENDS:

- ➔ DIRECTION OF TRAFFIC
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ‡ CONSTRUCTION AREA SIGNS (DETOUR) TYPE III BARRICADE
- X CONSTRUCTION AREA SIGNS No.
- ▬ FREEWAY, CONNECTOR AND RAMP CLOSURE

LEGEND:

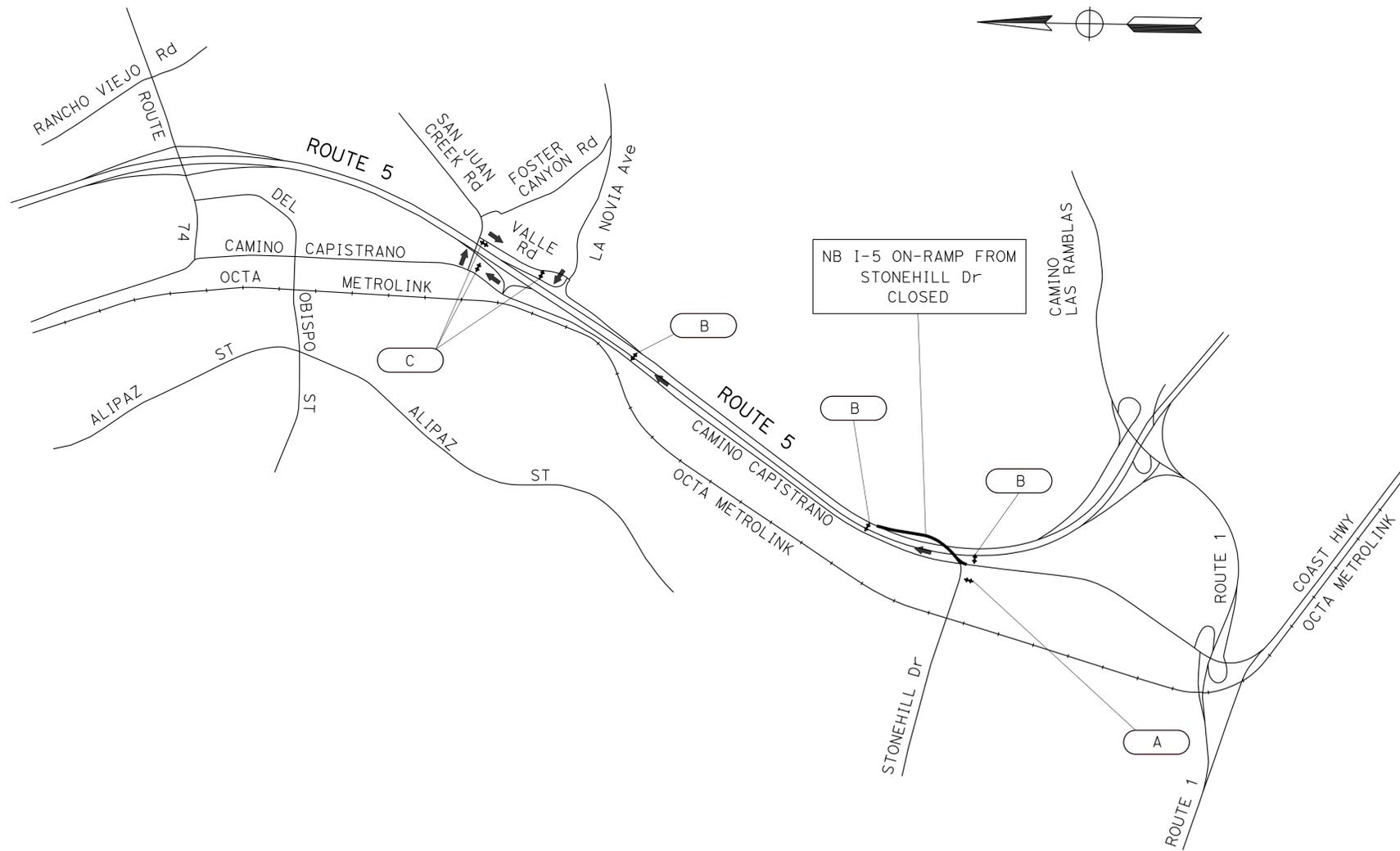
OCTA ORANGE COUNTY TRANSPORTATION AUTHORITY

CLOSURE:

NB I-5 ON-RAMP FROM STONEHILL Dr.

DETOUR:

WB CAMINO CAPISTRANO to
 NB SAN JUAN CREEK Rd to
 EB VALLE Rd.



LOCATION 2 (CMS 31)

TRAFFIC HANDLING PLAN (DETOUR)

NO SCALE

TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	5	28

Lawrence 01-24-14
 REGISTERED CIVIL ENGINEER DATE
 04-07-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 LAWRENCE LE
 No. C 57405
 Exp. 12/31/15
 CIVIL
 STATE OF CALIFORNIA

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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS	FRAME	SIGN MESSAGE
	1ST FRAME	RAMP CLOSED
	2ND FRAME	USE DETOUR

CLOSURE 1:

SB I-5 ON-RAMP FROM MAIN St.

CLOSURE 2:

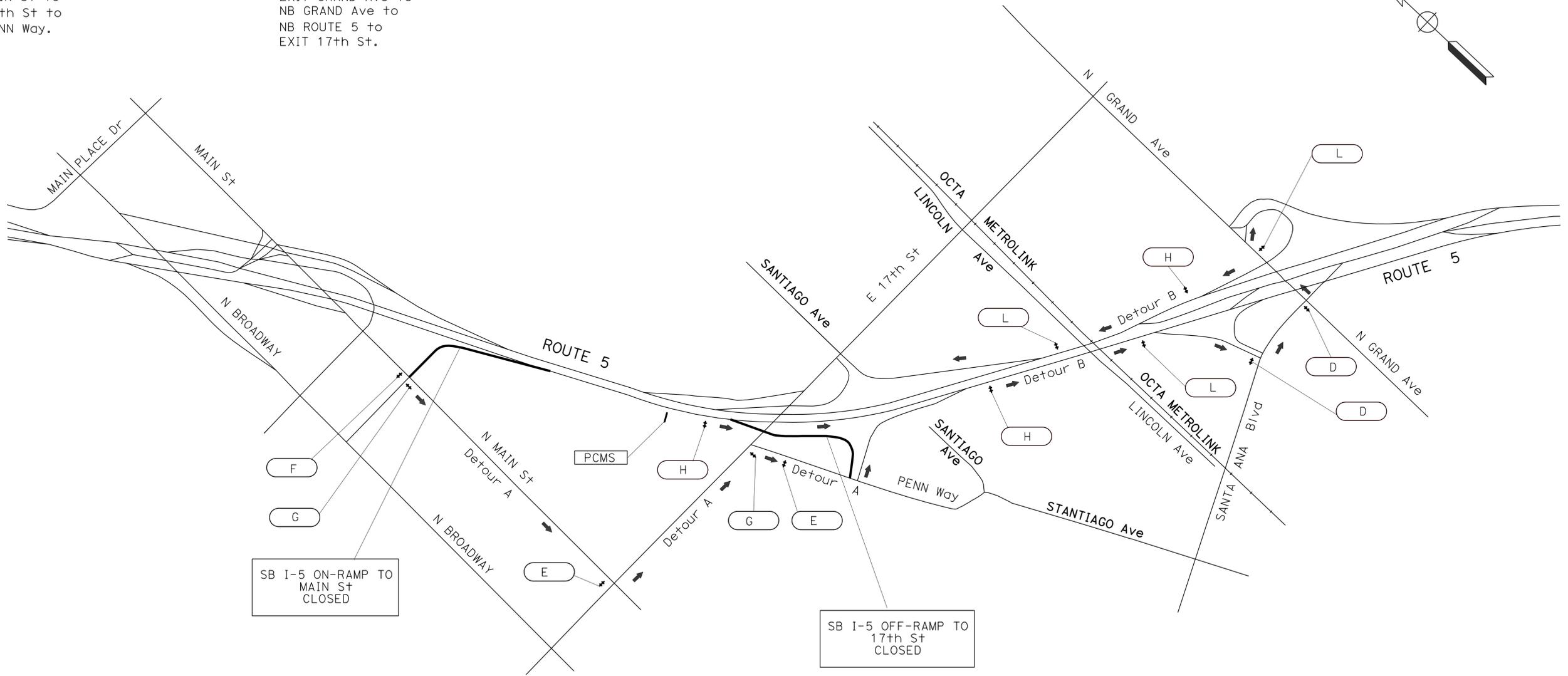
SB I-5 OFF-RAMP TO 17th St.

DETOUR A:

SB MAIN St to
 EB 17th St to
 SB PENN Way.

DETOUR B:

EXIT GRAND Ave to
 NB GRAND Ave to
 NB ROUTE 5 to
 EXIT 17th St.



LOCATION 7 (CMS 92)

**TRAFFIC HANDLING PLAN
(DETOUR)**

NO SCALE

TH-3

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Caltrans	
FUNCTIONAL SUPERVISOR	KAMRAN MAZHAR
CALCULATED/DESIGNED BY	CHECKED BY
LAWRENCE LE	SEYED DADRAS
REVISED BY	DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	6	28

Lawrence 01-24-14
 REGISTERED CIVIL ENGINEER DATE
 04-07-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 LAWRENCE LE
 No. C 57405
 Exp. 12/31/15
 CIVIL
 STATE OF CALIFORNIA

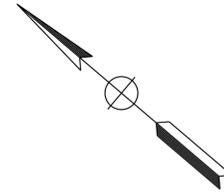
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NOTES:

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- EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS	FRAME	SIGN MESSAGE
	1ST FRAME	RAMP CLOSED
	2ND FRAME	USE DETOUR



CLOSURE 1:

SB I-5 ON-RAMP FROM HARBOR Blvd

CLOSURE 2:

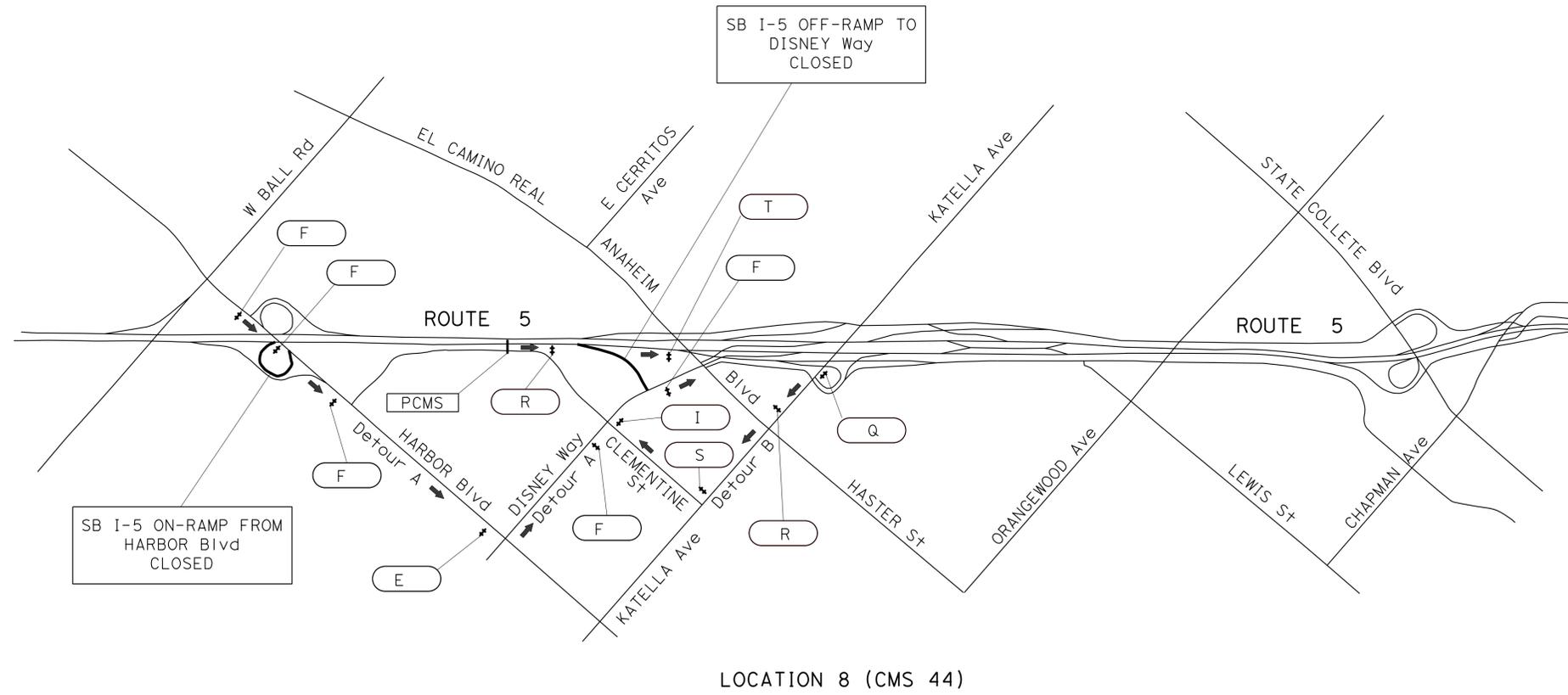
SB 5 OFF-RAMP TO DISNEY Way CLOSED

DETOUR A:

SB HARBOR Blvd to
EB DISNEY Way

DETOUR B:

EXIT KATELLA Ave
WB KATELLA Ave
NB CLEMENTINE St



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
 FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CALCULATED/DESIGNED BY: LAWRENCE LE
 CHECKED BY: SEYED DADRAS
 REVISED BY: LAWRENCE LE
 DATE REVISED: SEYED DADRAS

**TRAFFIC HANDLING PLAN
(DETOUR)**

NO SCALE

TH-4

APPROVED FOR TRAFFIC HANDLING WORK ONLY

LAST REVISION: 01-14-14 09:41
 DATE PLOTTED => 08-APR-2014
 TIME PLOTTED => 09:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	7	28

Lawrence 01-24-14
 REGISTERED CIVIL ENGINEER DATE
 04-07-14
 PLANS APPROVAL DATE

No. C 57405
 Exp. 12/31/15
 CIVIL

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

NOTES:

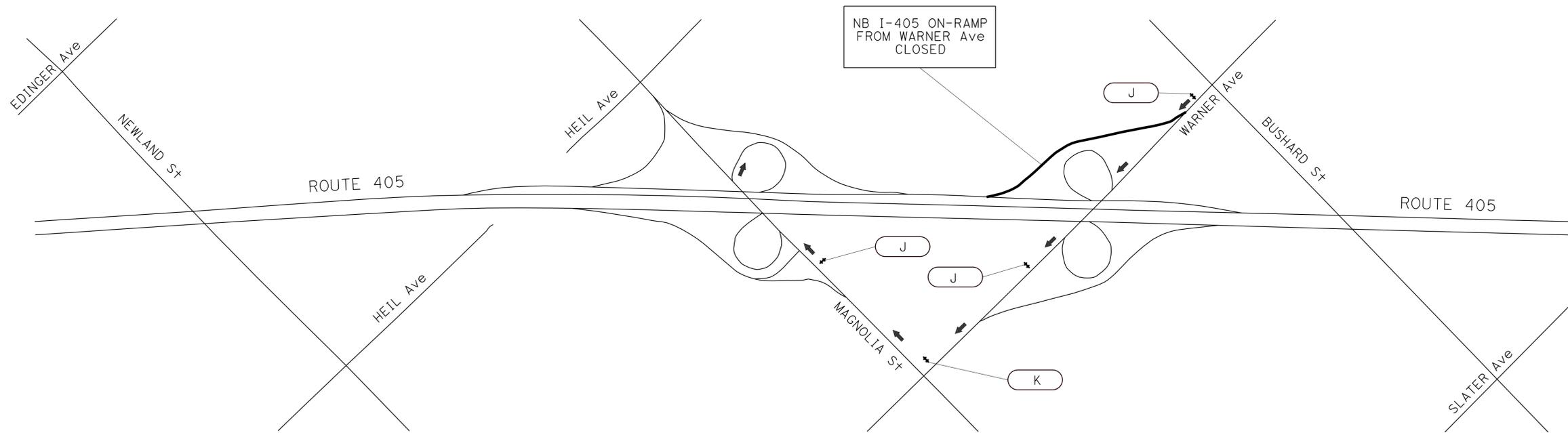
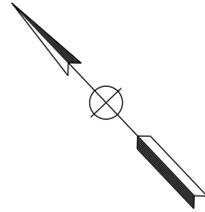
- 1) FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- 2) EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

CLOSURE:

NB I-405 ON-RAMP FROM WARNER Ave

DETOUR:

WB WARNER Ave to
NB MAGNOLIA St



LOCATION 11 (CMS 71)

**TRAFFIC HANDLING PLAN
(DETOUR)**

NO SCALE

TH-5

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	KAMRAN MAZHAR
CALCULATED/DESIGNED BY	CHECKED BY
LAWRENCE LE	SEYED DADRAS
REVISED BY	DATE REVISED



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	8	28

Lawrence Le 01-24-14
 REGISTERED CIVIL ENGINEER DATE
 04-07-14
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
LAWRENCE LE
 No. C 57405
 Exp. 12/31/15
 CIVIL
 STATE OF CALIFORNIA

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

CLOSURE:

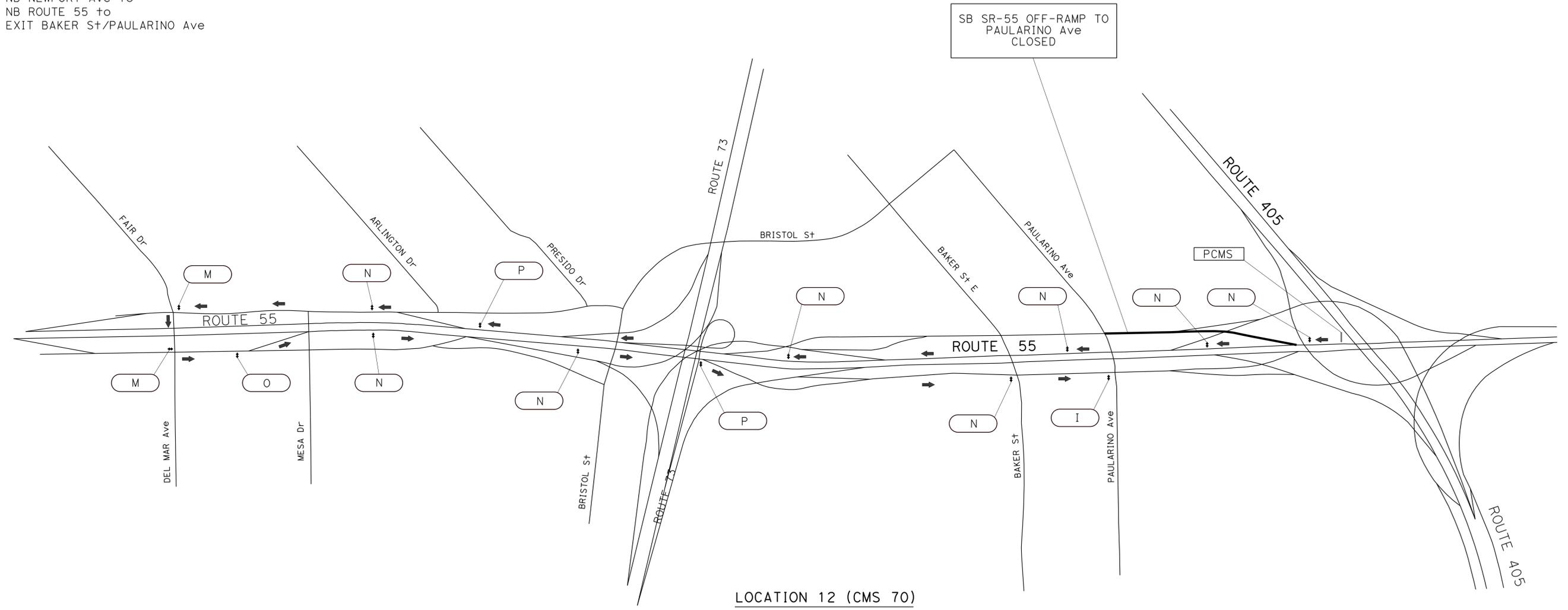
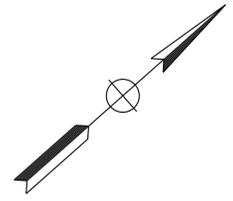
SB 55 OFF-RAMP TO PAULARINO Ave

DETOUR:

SB ROUTE 55 to
 EXIT DEL MAR Ave to
 EB DEL MAR Ave to
 NB NEWPORT Ave to
 NB ROUTE 55 to
 EXIT BAKER St+/PAULARINO Ave

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS	FRAME	SIGN MESSAGE
	1ST FRAME	RAMP CLOSED
	2ND FRAME	USE DETOUR



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 KAMRAN MAZHAR
 CALCULATED/DESIGNED BY
 CHECKED BY
 LAWRENCE LE
 SEYED DADRAS
 REVISED BY
 DATE REVISED

**TRAFFIC HANDLING PLAN
(DETOUR)**

NO SCALE

TH-6

APPROVED FOR TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	9	28

Lawrence 01-24-14
 REGISTERED CIVIL ENGINEER DATE

04-07-14
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
LAWRENCE LE
 No. C 57405
 Exp. 12/31/15
 CIVIL
 STATE OF CALIFORNIA

NOTES:

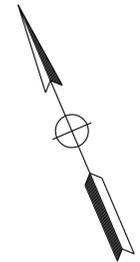
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

CLOSURE:

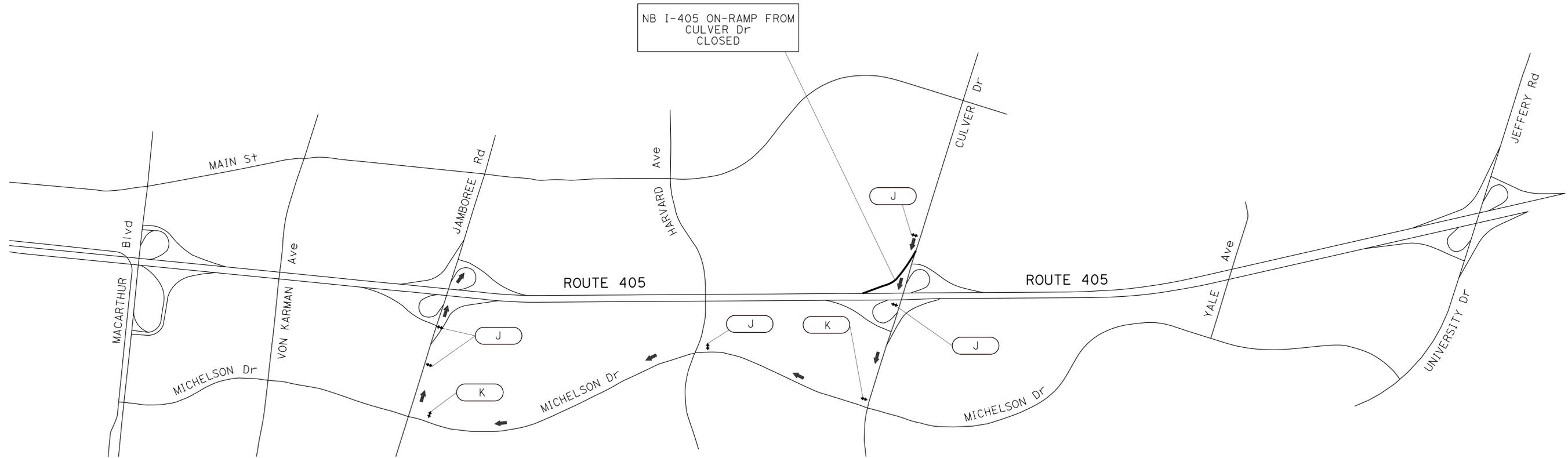
NB I-405 ON-RAMP FROM CULVER Dr

DETOUR:

SB CULVER Dr to
 WB MICHELSON Dr to
 NB JAMBOREE Rd to
 NB I-405



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	KAMRAN MAZHAR
CALCULATED/DESIGNED BY	CHECKED BY
LAWRENCE LE	SEYED DADRAS
REVISED BY	DATE REVISED



LOCATION 13 (CMS 87)

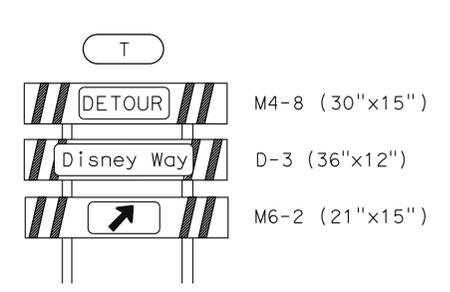
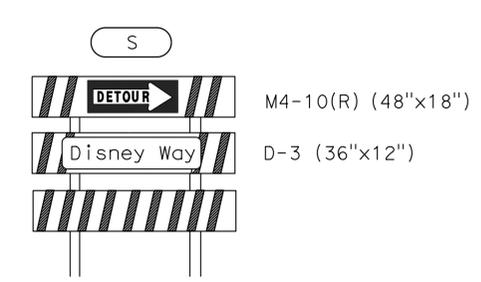
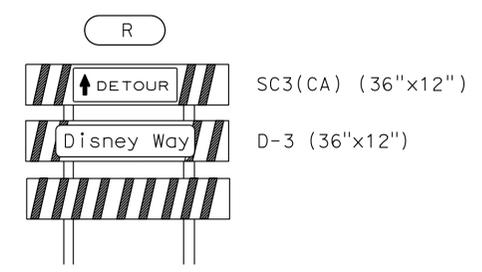
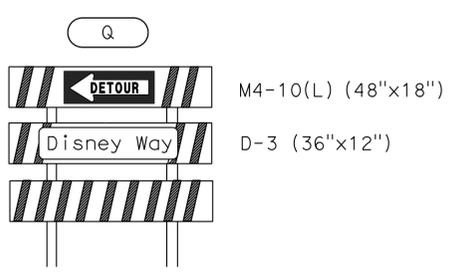
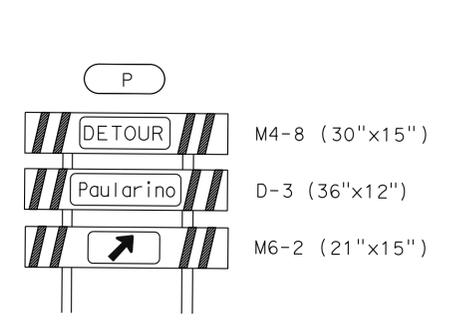
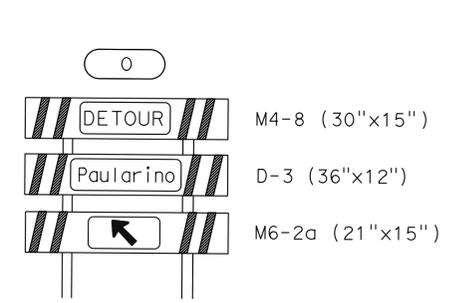
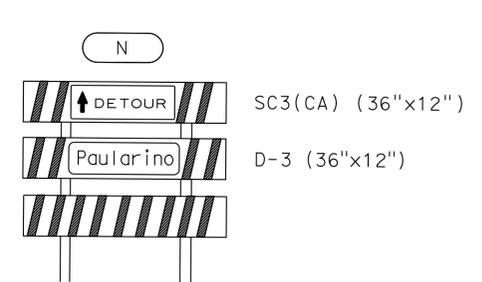
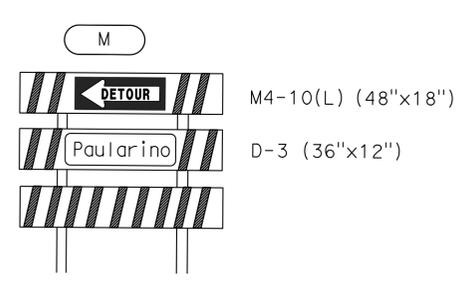
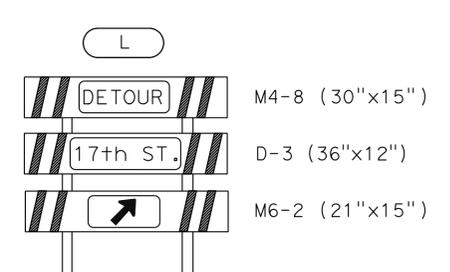
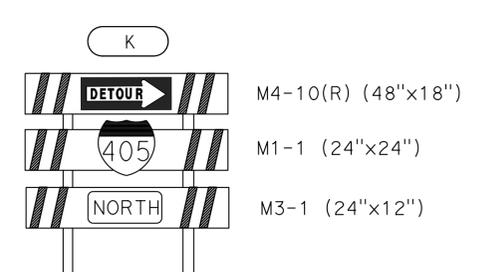
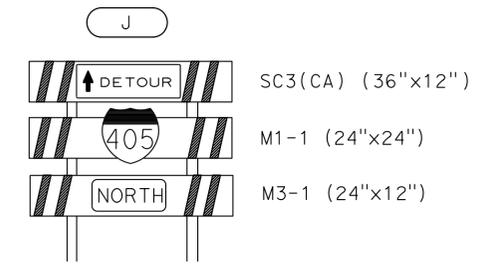
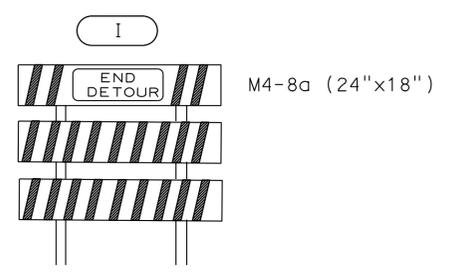
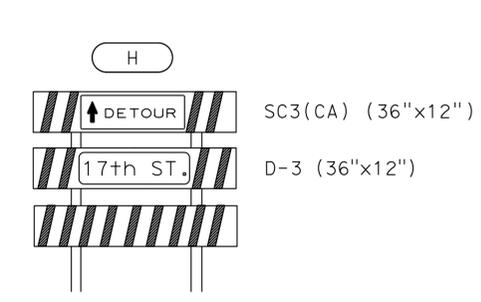
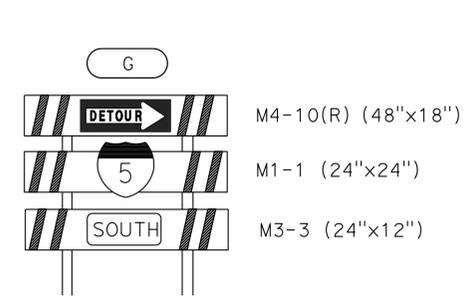
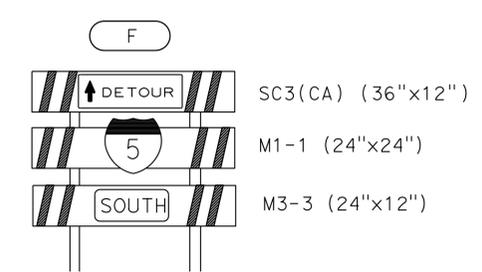
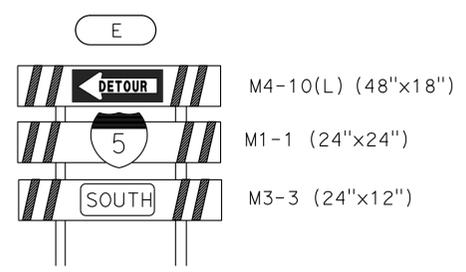
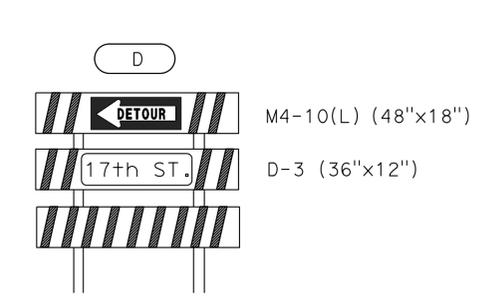
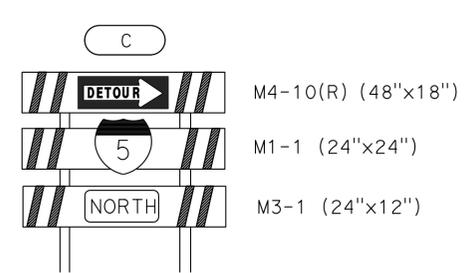
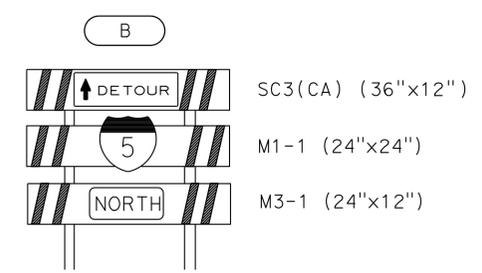
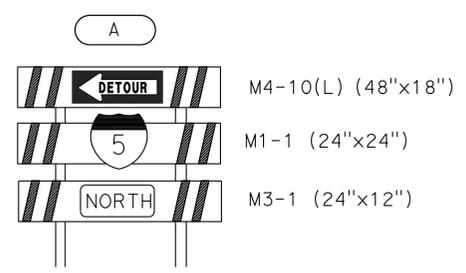
**TRAFFIC HANDLING PLAN
(DETOUR)**

NO SCALE

TH-7

APPROVED FOR TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	10	28
<i>Lawrence Le</i> 01-24-14 REGISTERED CIVIL ENGINEER DATE					
04-07-14 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
Caltrans
 DESIGN

REVISOR BY
 LAWRENCE LE
 DATE

DESIGNED BY
 SEYED DADRAS

CHECKED BY

FUNCTIONAL SUPERVISOR
 KAMRAN MAZHAR

TRAFFIC HANDLING DETAILS (DETOUR)

NO SCALE

THD - 1

LAST REVISION DATE PLOTTED => 08-APR-2014
 00-00-00 TIME PLOTTED => 09:41

CONSTRUCTION AREA SIGNS (DETOUR)

SIGN No.	SIGN CODE	No. OF SIGNS	TYPE III BARRICADES (EA)
A	M4-10(L)	4	4
	M1-1		
	M3-1		
B	SC3(CA)	9	9
	M1-1		
	M3-1		
C	M4-10(R)	3	3
	M1-1		
	M3-1		
D	M4-10(L)	2	2
	D-3		
E	M4-10(L)	3	3
	M1-1		
	M3-3		
F	SC3(CA)	6	6
	M1-1		
	M3-3		
G	M4-10(R)	2	2
	M1-1		
	M3-3		
H	SC3(CA)	3	3
	D-3		
I	M4-8a	2	2
J	SC3(CA)	7	7
	M1-1		
	M3-1		
K	M4-10(R)	3	3
	M1-1		
	M3-1		
L	M4-8	3	3
	D-3		
	M6-2		
M	M4-10(L)	2	2
	D-3		
N	SC3(CA)	8	8
	D-3		
O	M4-8	1	1
	D-3		
	M6-2a		
P	M4-8	2	2
	D-3		
	M6-2		
Q	M4-10(L)	1	1
	D-3		
R	SC3(CA)	2	2
	D-3		
S	M4-10(R)	1	1
	D-3		
T	M4-8	1	1
	D-3		
	M6-2		
TOTAL			65

NOTE: FOR ADDITIONAL QUANTITIES OF CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.

PORTABLE CHANGEABLE MESSAGE SIGN QUANTITY

SHEET	QUANTITY (EA)
TH-3	1
TH-4	1
TH-6	1
TOTAL	3

TRAFFIC HANDLING QUANTITIES

THQ - 1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	11	28

Lawrence 01-24-14
 REGISTERED CIVIL ENGINEER DATE

04-07-14
 PLANS APPROVAL DATE

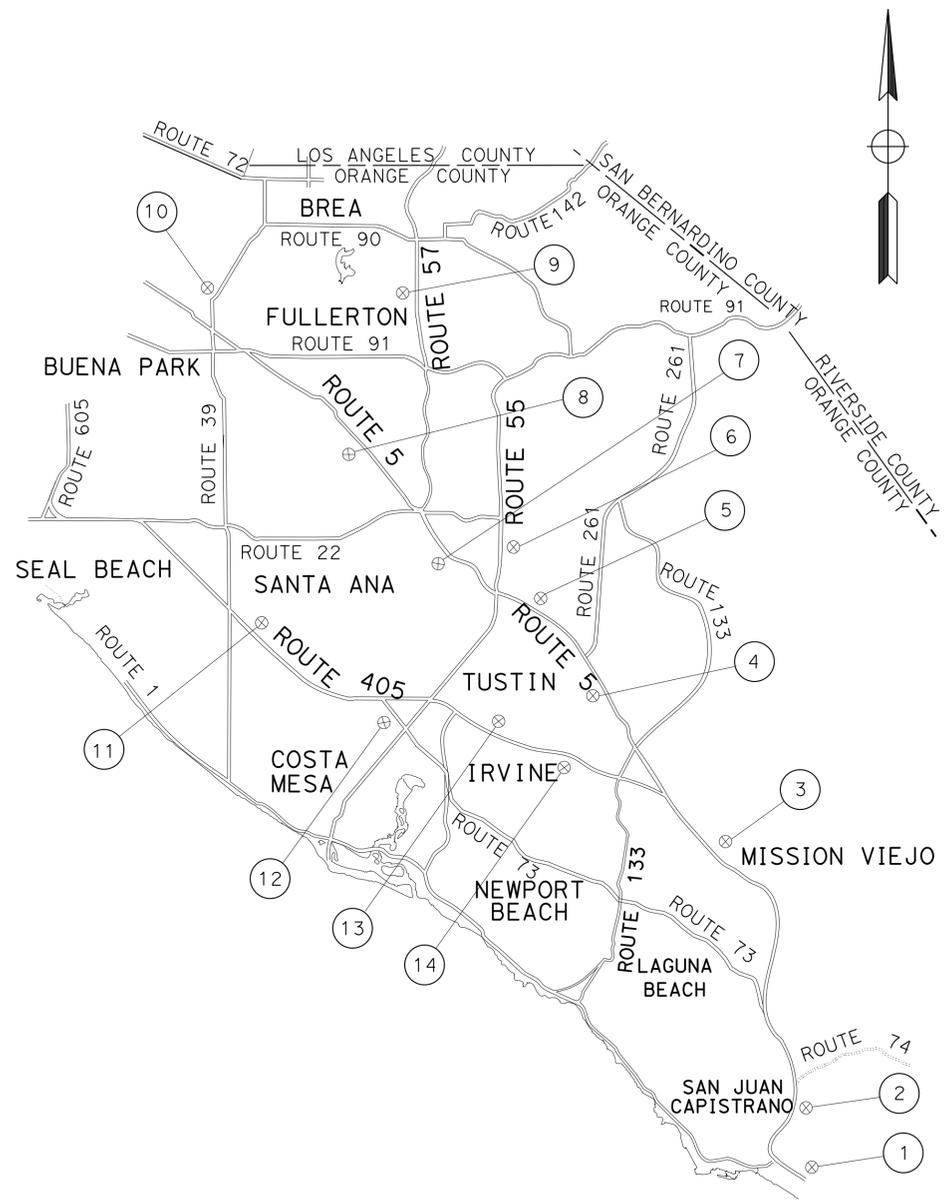
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	5,55, 57, 405	Var	12	28

Lawrence Le 01-24-14
 REGISTERED CIVIL ENGINEER DATE

04-07-14
 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.



SIGN QUANTITIES

LOCATION (X)	CMS No.	ROUTE	Dir	PM	CROSS STREET	FURNISH SIGN STRUCTURE (TRUSS) (LB)	MODIFY SIGN STRUCTURE (SAFETY CABLE RETROFIT) (EA)
1	74	5	NB	4.40	Ave VISTA HERMOSA	409	1
2	31	5	NB	8.95	SAN JUAN CREEK	409	1
3	95	5	NB	19.00	EL TORO Rd	409	1
4	75	5	SB	24.80	JEFFERY Rd	409	1
5	93	5	NB	28.50	TUSTIN RANCH Rd	409	1
6	85	55	NB	11.90	E 17 TH St	409	1
7	92	5	SB	32.40	E 17TH St	409	1
8	44	5	SB	35.50	ANAHEIM Blvd	409	1
9	99	57	SB	18.40	YORBA LINDA Blvd	409	1
10	54	5	SB	44.00	ARTESIA Blvd	409	1
11	71	405	NB	15.10	MAGNOLIA St	409	1
12	70	55	SB	5.30	PAULARINO Ave	409	1
13	87	405	NB	7.30	HARVARD Blvd	409	1
14	76	405	SB	4.05	JEFFERY Rd	409	1
TOTAL						5726	14

SIGN QUANTITIES

SQ - 1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 KAMRAN MAZHAR
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 CALCULATED/DESIGNED BY
 LAWRENCE LE
 SEYED DADRAS
 REVISED BY
 DATE REVISED

LAST REVISION DATE PLOTTED => 08-APR-2014 01-14-14 TIME PLOTTED => 09:41

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 KAMRAN MAZHAR
 CALCULATED/DESIGNED BY
 CHECKED BY
 LAWRENCE LE
 SEYED DADRAS
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	13	28

Lawrence Le 01-24-14
 REGISTERED CIVIL ENGINEER DATE

04-07-14
 PLANS APPROVAL DATE

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TEMPORATY DRAINAGE INLET PROTECTION QUANTITIES

LOCATION	CMS No.	ROUTE	Dir	PM	CROSS STREET	TEMPORARY DRAINAGE INLET PROTECTION (EA)
(X)						
1	74	5	NB	4.40	Ave VISTA HERMOSA	8
2	31	5	NB	8.95	SAN JUAN CREEK	5
3	95	5	NB	19.00	EL TORO Rd	2
4	75	5	SB	24.80	JEFFERY Rd	2
5	93	5	NB	28.50	TUSTIN RANCH Rd	4
6	85	55	NB	11.90	E 17 TH St	5
8	44	5	SB	35.50	ANAHEIM Blvd	15
10	54	5	SB	44.00	ARTESIA Blvd	11
					TOTAL	52

QUANTITIES Q - 1



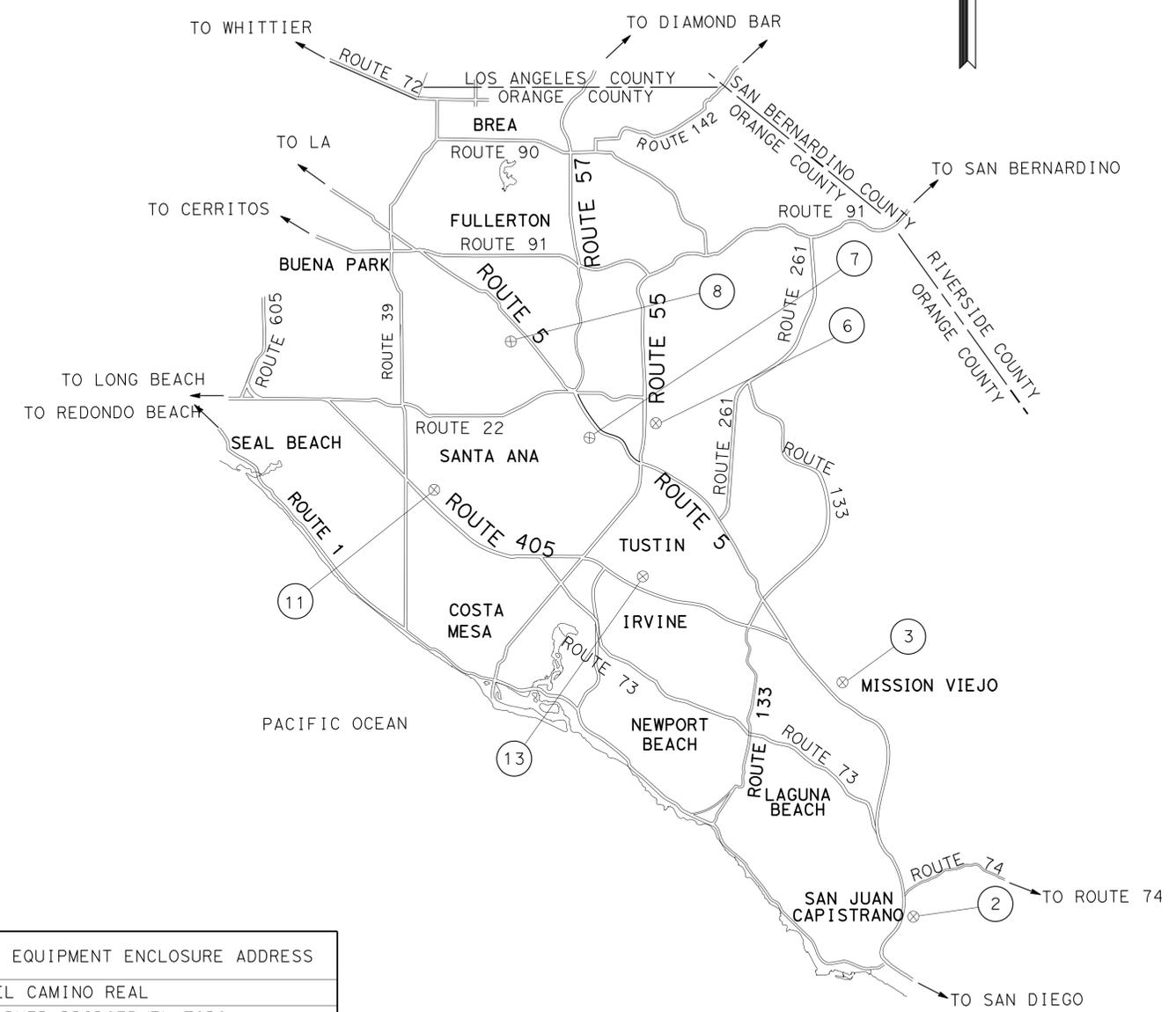
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	14	28

Barjesh K. Sharma 01-24-14
REGISTERED ELECTRICAL ENGINEER DATE

04-07-14
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.

B.K. SHARMA
No. E 19299
Exp 12/31/14
ELECTRICAL
STATE OF CALIFORNIA



LOCATIONS OF CONSTRUCTION

LOCATION No.	CMS No.	ROUTE	PM	DIRECTION	CROSS STREET	SERVICE ID No.	SERVICE EQUIPMENT ENCLOSURE ADDRESS
②	31	5	9.0	NB	SAN JUAN CREEK	12-55-005-0-008.925	33168 EL CAMINO REAL
③	95	5	19.0	NB	EL TORO Rd	12-55-005-0-020.477	N.E. CORNER BRIDGER/EL TORO
⑥	85	55	11.9	NB	E 17TH St	12-55-055-0-011.903	N.E. CORNER OFF RAMP GORE
⑦	92	5	32.4	SB	E 17TH St	12-55-005-0-031.600	599 PENN WAY/S.E. CORNER ON RAMP
⑧	44	5	35.5	SB	ANAHEIM Blvd	12-55-005-0-036.672	N.E. 1701 S. ANAHEIM Blvd
⑪	71	405	15.1	NB	MAGNOLIA St	12-55-405-0-012.202	16502 MAGNOLIA STREET N.E. SIDE
⑬	87	405	7.3	NB	HARVARD Blvd	12-55-405-0-006.300	17800 HARVARD Ave

ABBREVIATIONS:
N.E. North East
S.E. South East

MODIFY CHANGEABLE MESSAGE SIGN SYSTEM

NO SCALE

APPROVED FOR ELECTRICAL WORK ONLY

E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR: SHAHRAM SHAHRIARI
DESIGNED BY: BARJESH SHARMA
CHECKED BY: VANESSA TRUONG
REVISOR: 01/15/14
DATE: 01/15/14

LAST REVISION: DATE PLOTTED => 08-APR-2014
TIME PLOTTED => 09:41

LEGEND: (THIS SHEET ONLY)

- 1 EXISTING MODEL 334-C CABINET TO REMAIN.
- 2 EXISTING 120/240 V METERED SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE. REPLACE FOUR EXISTING 80 A-120 V-1P CB WITH NEW 30 A-120 V-1P CB (7 LOCATIONS TOTAL). NEW 30 A CIRCUIT BREAKERS MUST BE GANGED-OPERATED. SEE EXISTING AND NEW CIRCUIT BREAKER DETAIL ON SHEET E-3.
- 3 REMOVE EXISTING 60 XENON PIXEL MATRIX MODULES AND INSTALL 60 LED PIXEL MATRIX MODULES AT EACH CMS LOCATION (7 LOCATIONS TOTAL). 20 OF THESE REMOVED XENON PIXEL MAXTRIX MODULES ARE TO BE SALVAGED AND THE REMAINING 400 MODULES BECOME THE PROPERTY OF THE CONTRACTOR. CONNECT EXISTING CONNECTORS TO THE NEW INSTALLED MODULES.

NOTES

1. CONTRACTOR SHALL VERIFY THAT THE POWER FOR THE CMS HAS BEEN SHUT OFF BEFORE PERFORMING ANY WORK ON THE SYSTEM. THE CMS POWER SHALL REMAIN OFF, UNLESS OTHERWISE ORDERED TO TURN IT ON DURING TESTING BY STATE FORCES.
2. CONTRACTOR SHALL COMPLY WITH NATIONAL ELECTRICAL CODE AND CALTRANS STANDARD SPECIFICATIONS AND STANDARD PLANS
3. CONTRACTOR TO LAY TARPAULIN OR SAFETY NET OVER THE LENGTH OF THE CMS WALKWAY TO PREVENT ACCIDENTAL DROP OF TOOLS OR SMALL OBJECTS ONTO THE ROADWAY. THE TARPAULIN OR SAFETY NET SHALL BE SECURED.

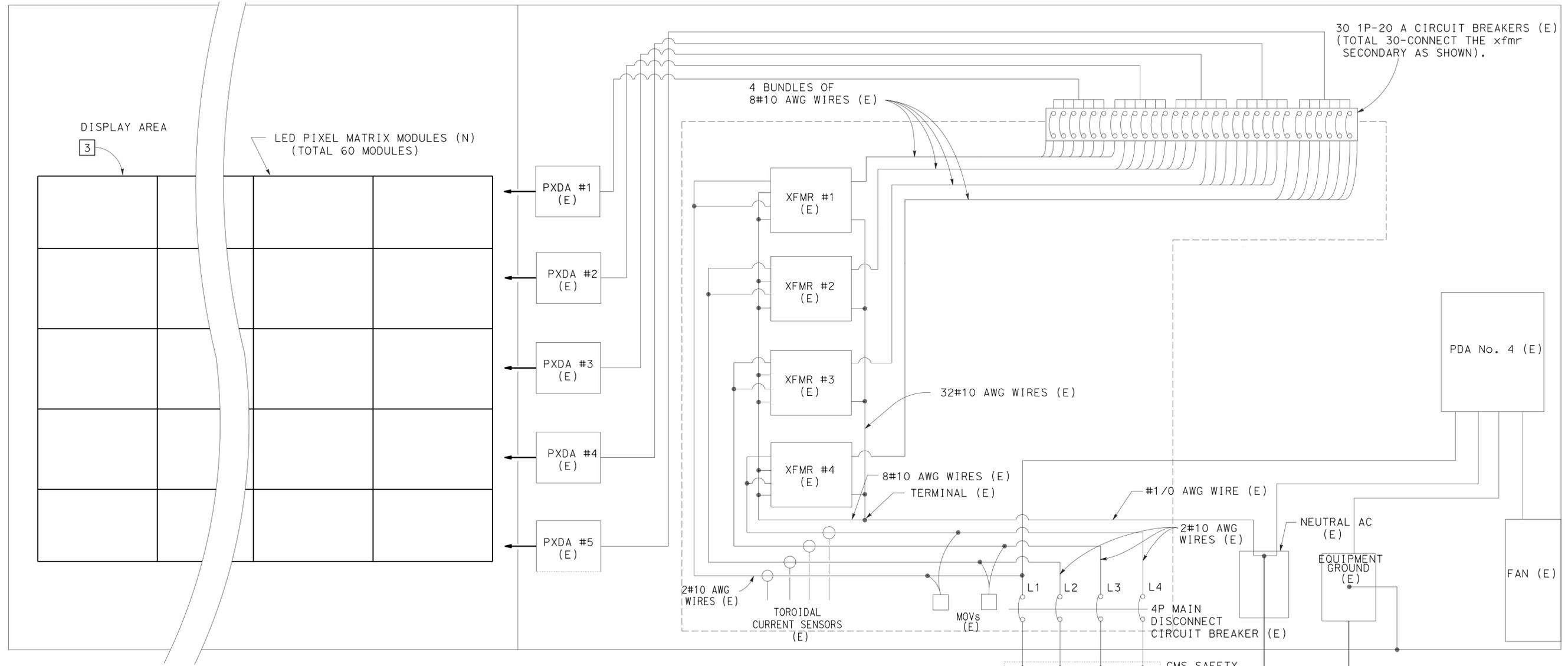
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	15	28

Barjesh K. Sharma 01-24-14
 REGISTERED ELECTRICAL ENGINEER DATE

04-07-14
 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.

B.K. SHARMA
 No. E 19299
 Exp 12/31/14
 ELECTRICAL
 STATE OF CALIFORNIA



ABBREVIATIONS

(E)	EXISTING
MOV	METAL-OXIDE VARISTOR
(N)	NEW
x fmr	TRANSFORMER
PDA	POWER DISTRIBUTION ASSEMBLY
PXDA	PIXEL DRIVER ASSEMBLY

TYPICAL CMS MODEL 500 (XENON) SYSTEM WIRING DIAGRAM

MODIFY CHANGEABLE MESSAGE SIGN SYSTEM

NO SCALE

E-2

APPROVED FOR ELECTRICAL WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	16	28

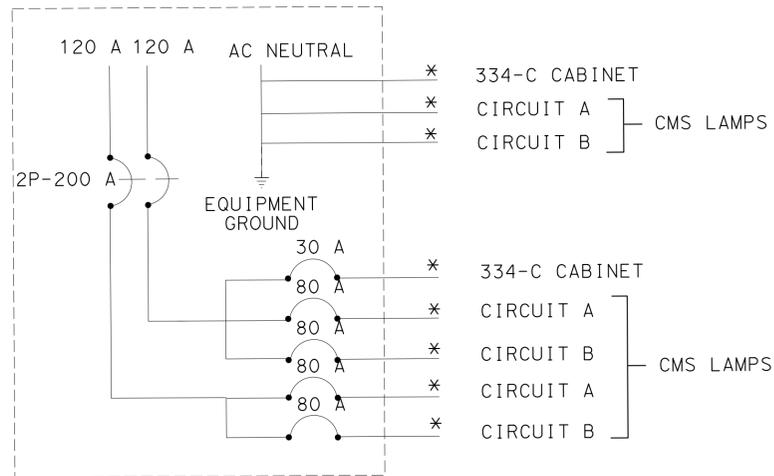
Barjesh K. Sharma 01-24-14
REGISTERED ELECTRICAL ENGINEER DATE

04-07-14
PLANS APPROVAL DATE

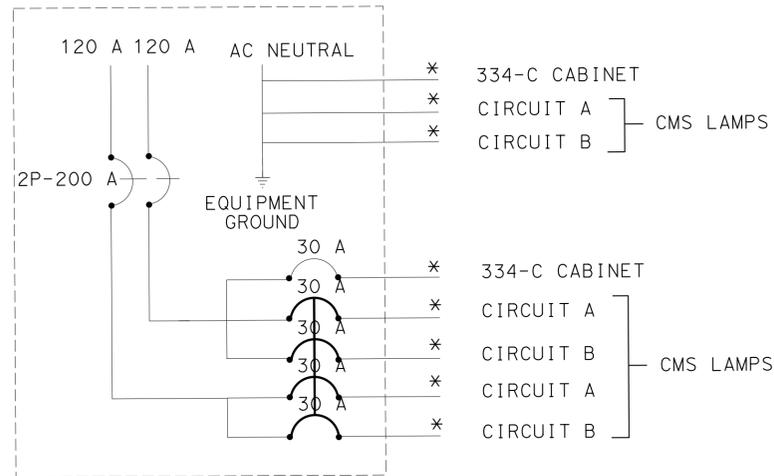
B.K.SHARMA
No. E 19299
Exp 12/31/14
ELECTRICAL
STATE OF CALIFORNIA

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

REVISOR	DATE	REVISION
BARJESH SHARMA	01/13/14	
VANESSA TRUONG	01/13/14	
CALCULATED/DESIGNED BY	CHECKED BY	
SHAHRAM SHAHRIARI		
FUNCTIONAL SUPERVISOR		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans ELECTRICAL DESIGN		



TYPICAL EXISTING CIRCUIT BREAKER DETAIL



TYPICAL NEW CIRCUIT BREAKER DETAIL

NOTE:

* REUSE EXISTING CONDUCTORS AT EACH LOCATION.

MODIFY CHANGEABLE MESSAGE SIGN SYSTEM

NO SCALE

E-3

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **ELECTRICAL DESIGN**

BORDER LAST REVISED 7/2/2010

USERNAME => s127956
 DGN FILE => 1212000030u004.dgn

RELATIVE BORDER SCALE IS IN INCHES



UNIT 3024

PROJECT NUMBER & PHASE 12120000301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55, 57, 405	Var	17	28

Barjesh K. Sharma 01-24-14
 REGISTERED ELECTRICAL ENGINEER DATE

04-07-14
 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.

MODIFY CHANGEABLE MESSAGE SIGN SYSTEM

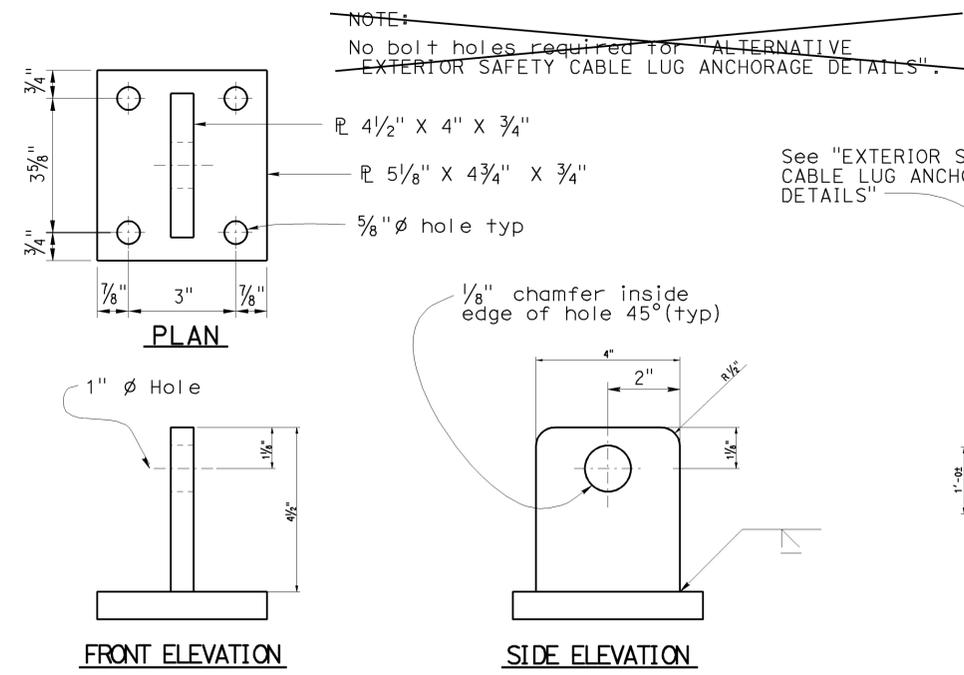
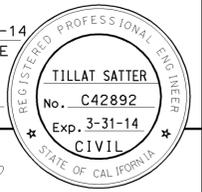
SHEET No.	LED PIXEL MATRIX MODULES	CIRCUIT BREAKER 30 A
E-2	EA 420	EA 28

NOTE:
 ITEMS SHOWN IN THIS TABLE ARE NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

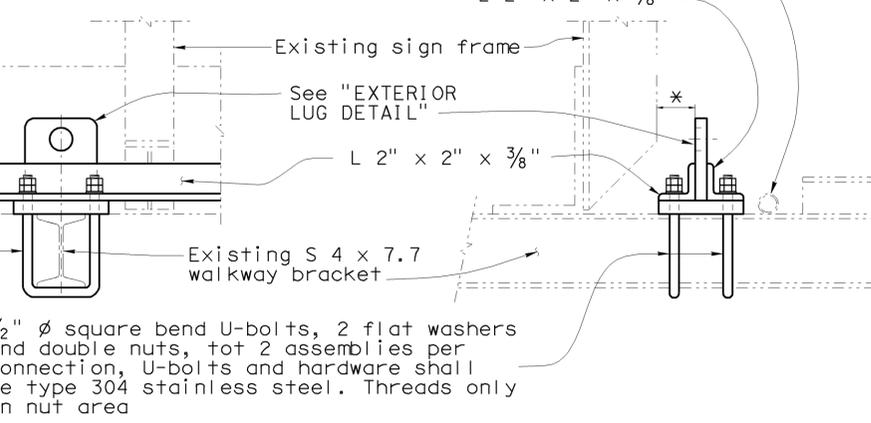
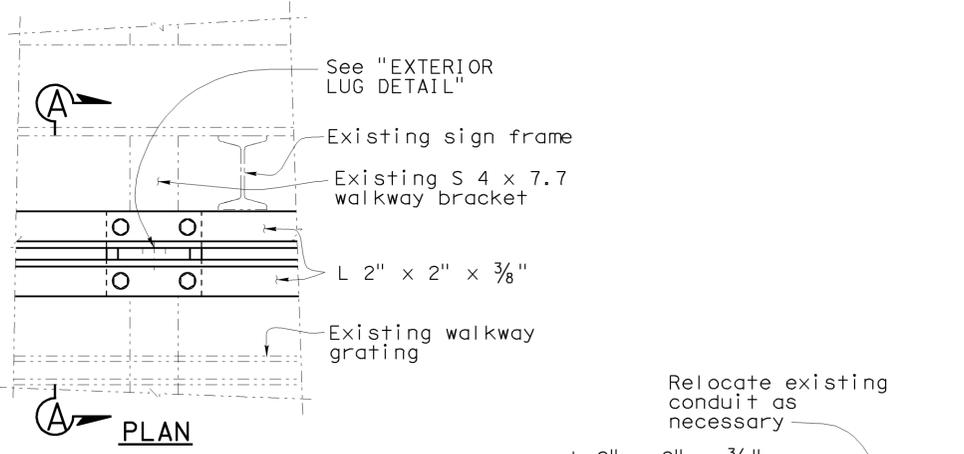
ELECTRICAL QUANTITIES
E-4

LAST REVISION | DATE PLOTTED => 08-APR-2014
 01-14-14 | TIME PLOTTED => 09:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	18	28
REGISTERED CIVIL ENGINEER			DATE	01-24-14	
02-24-14			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>					

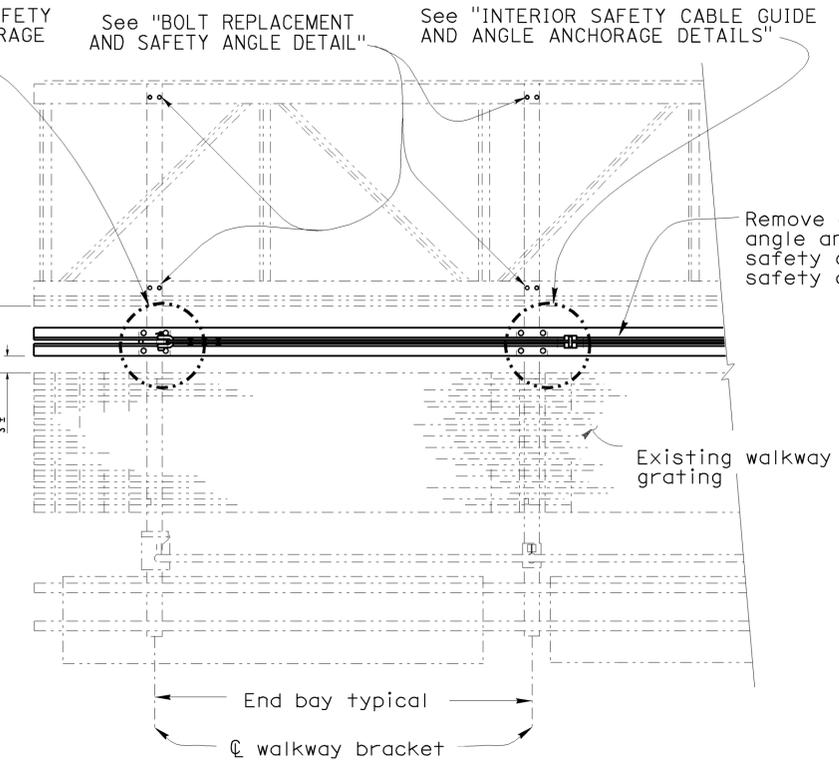


EXTERIOR LUG DETAILS
no scale



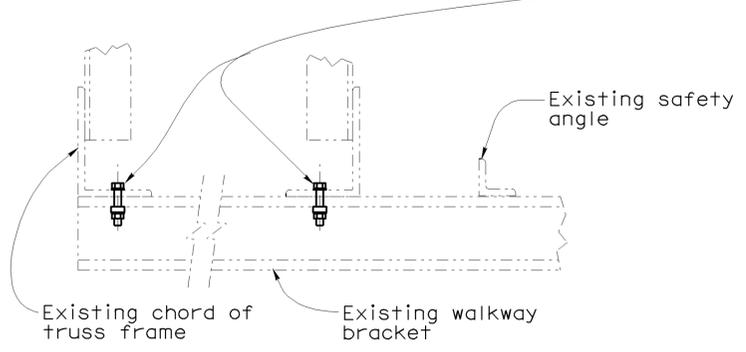
EXTERIOR SAFETY CABLE LUG ANCHORAGE DETAILS
no scale

* minimum of 2" clear from sign face or sign frame.



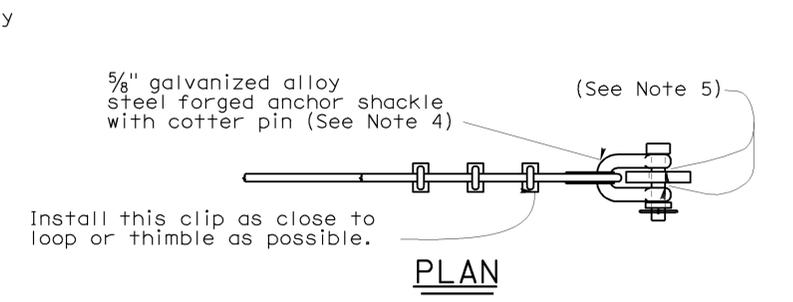
PLAN
no scale

Remove existing 3/8" ϕ bolts in both end bays and replace with 3/8" ϕ SAE J429-Grade 8 bolts, (each end bay), ASTM A563 Grade DH or DH3 or ASTM A194 grade 2H nut, Mechanical Galvanize nut and bolt per ASTM B695. Reuse washer, beveled washer, and lock washer if in good condition. Otherwise replace with galvanized washer, beveled washer and lock washer.

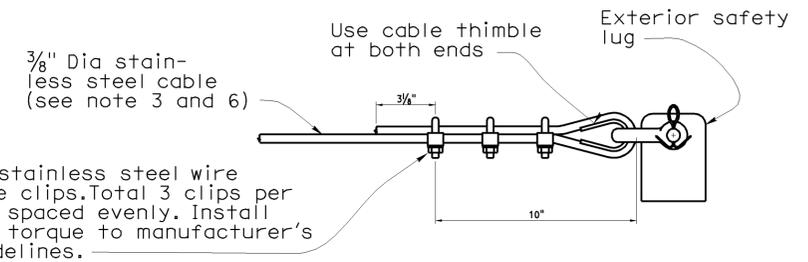


BOLT REPLACEMENT AND SAFETY ANGLE DETAIL
no scale

LEGEND
----- Existing structure
———— New construction



PLAN



ELEVATION

END SAFETY CABLE
no scale

NOTES

- Safety cable not shown in all views for clarity.
- Unless otherwise shown all steel shall be galvanized after fabrication.
- Stainless steel cable shall be plain with 7 x 19 Class strand core construction using Type 302 or 304 alloy stainless steel strands. Minimum cable breaking strength shall be 10,000 pounds. Cable shall be free of kinks, knots, or deformation and shall be continuous between end lugs. Splices not allowed. Safety cable shall not be prestretched.
- Shackle shall be galvanized steel with working load limit of 10,000 pounds.
- Place an equal amount of washers on each side to align cable with end lug without restricting shackle bolt rotation or contacting cable.
- Prior to tightening cable clips at exterior anchorage, slack in cable shall be removed by the full effort of a typical construction worker.

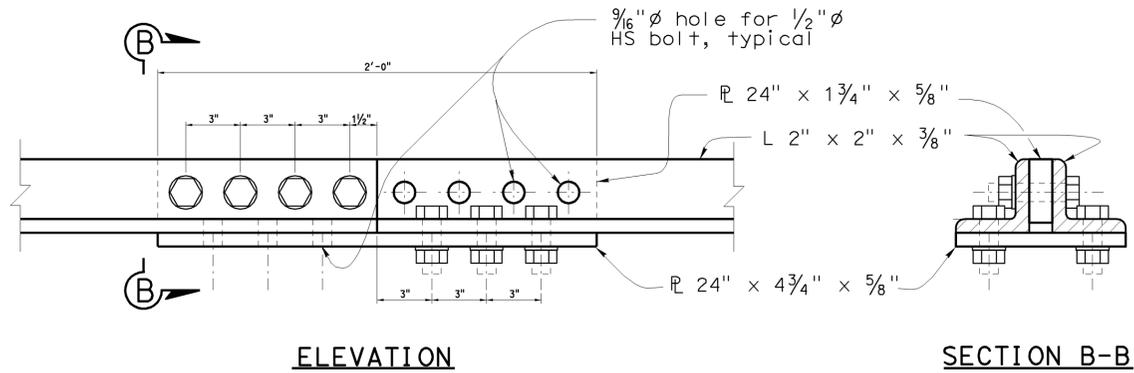
OVERHEAD SIGN SAFETY CABLE RETROFIT DETAILS

SD-1

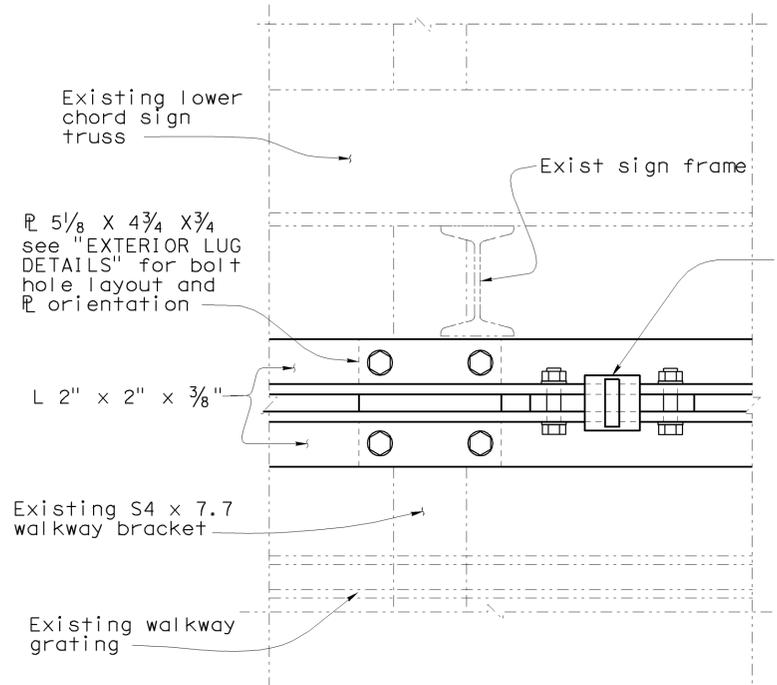
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER: K.C. LIU
DESIGNED BY: T. SATTER
CHECKED BY: A. GUTIERREZ
REVISIONS: 11-20-13, 06-27-05
DATE REVISED: 06-27-05

DATE PLOTTED => 24-JAN-2014
TIME PLOTTED => 10:42

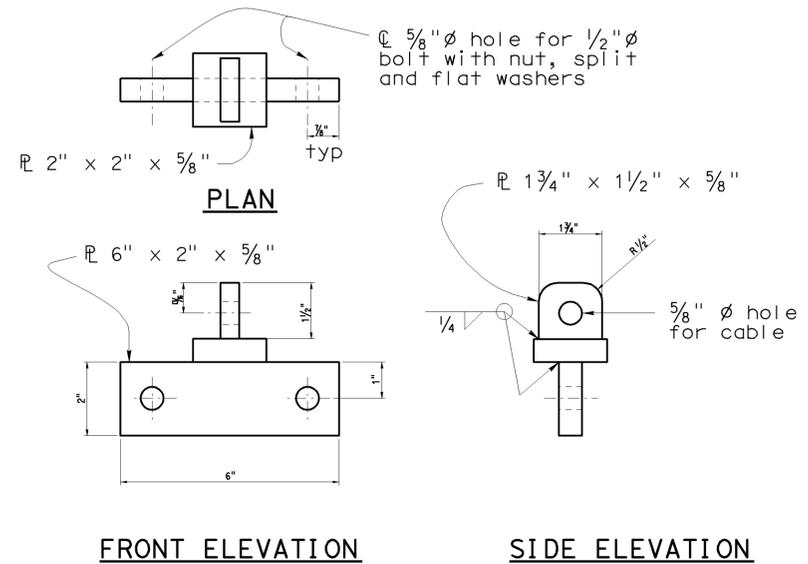
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	19	28
REGISTERED CIVIL ENGINEER			DATE	01-24-14	
02-24-14			PLANS APPROVAL DATE	TILLAT SATTER No. C42892 Exp. 3-31-14 CIVIL	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



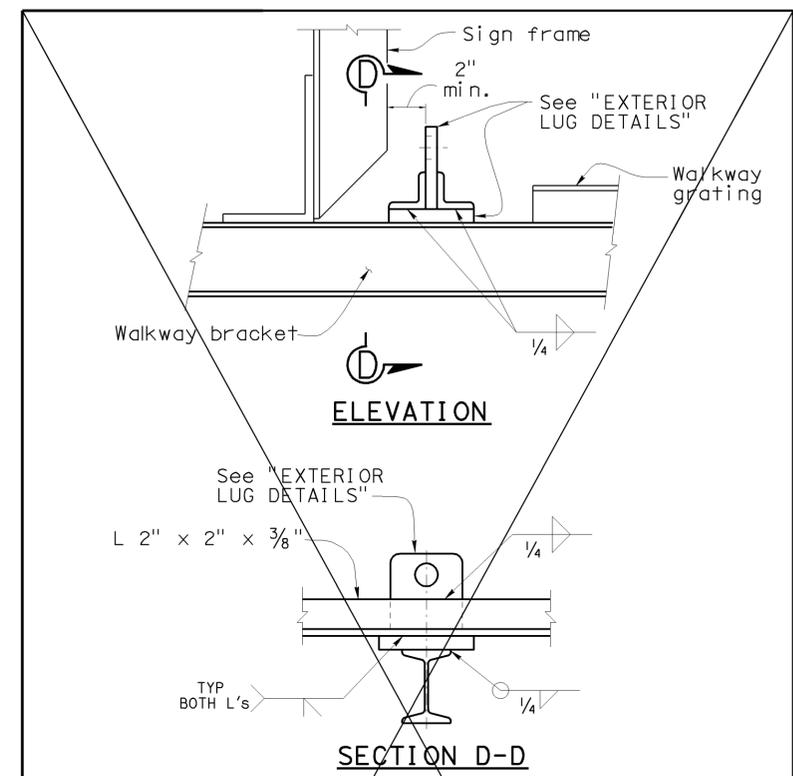
ELEVATION **SECTION B-B**
ANGLE SPLICE DETAILS



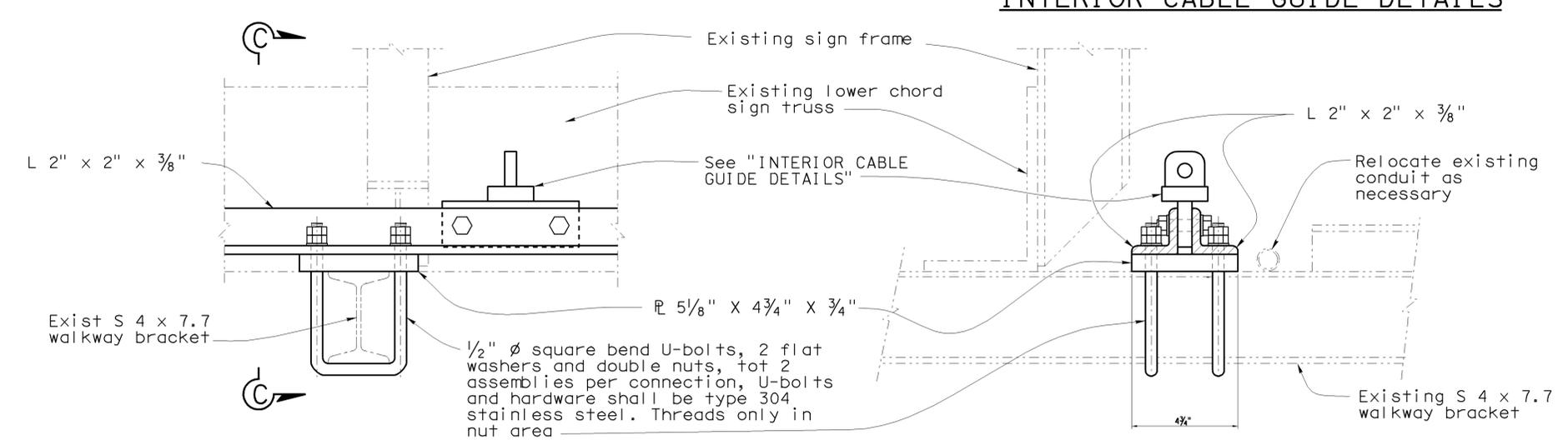
PLAN
NOTE:
Interior cable guide spacing to be max. 5'-6" CC



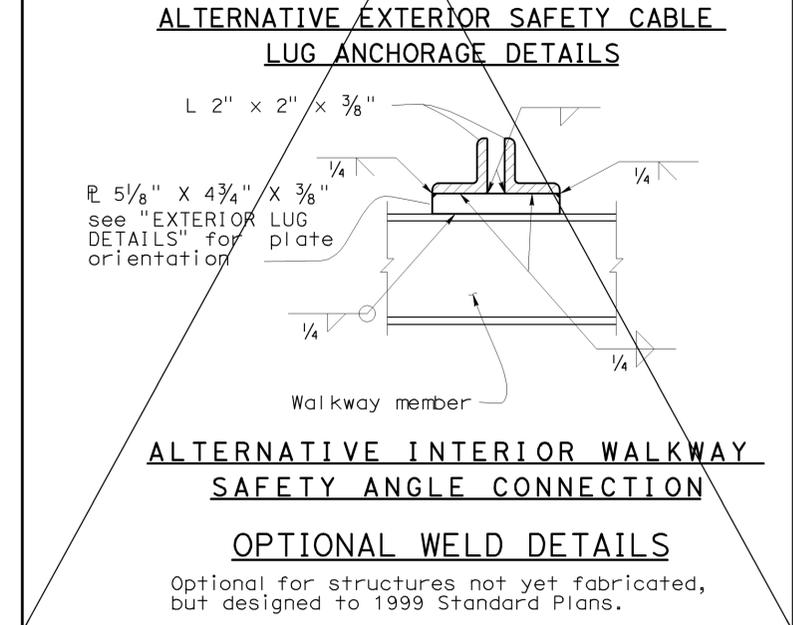
PLAN **FRONT ELEVATION** **SIDE ELEVATION**
INTERIOR CABLE GUIDE DETAILS



ELEVATION **SECTION D-D**
ALTERNATIVE EXTERIOR SAFETY CABLE LUG ANCHORAGE DETAILS



ELEVATION **SECTION C-C**
INTERIOR SAFETY CABLE GUIDE AND ANGLE ANCHORAGE DETAILS
no scale



ALTERNATIVE INTERIOR WALKWAY SAFETY ANGLE CONNECTION
OPTIONAL WELD DETAILS
Optional for structures not yet fabricated, but designed to 1999 Standard Plans.

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

OVERHEAD SIGN SAFETY CABLE RETROFIT DETAILS
SD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER: K.C. LIU
CALCULATED/DESIGNED BY: A. GUTIERREZ
CHECKED BY: T. SATTER
REVISOR: J. GUO
DATE REVISED: 06-27-05
11-20-13

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

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

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

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	20	28

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED April 7, 2014

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

2010 REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	21	28


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE



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TO ACCOMPANY PLANS DATED April 7, 2014

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**

NO SCALE

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

REVISED STANDARD PLAN RSP T9

2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	22	28

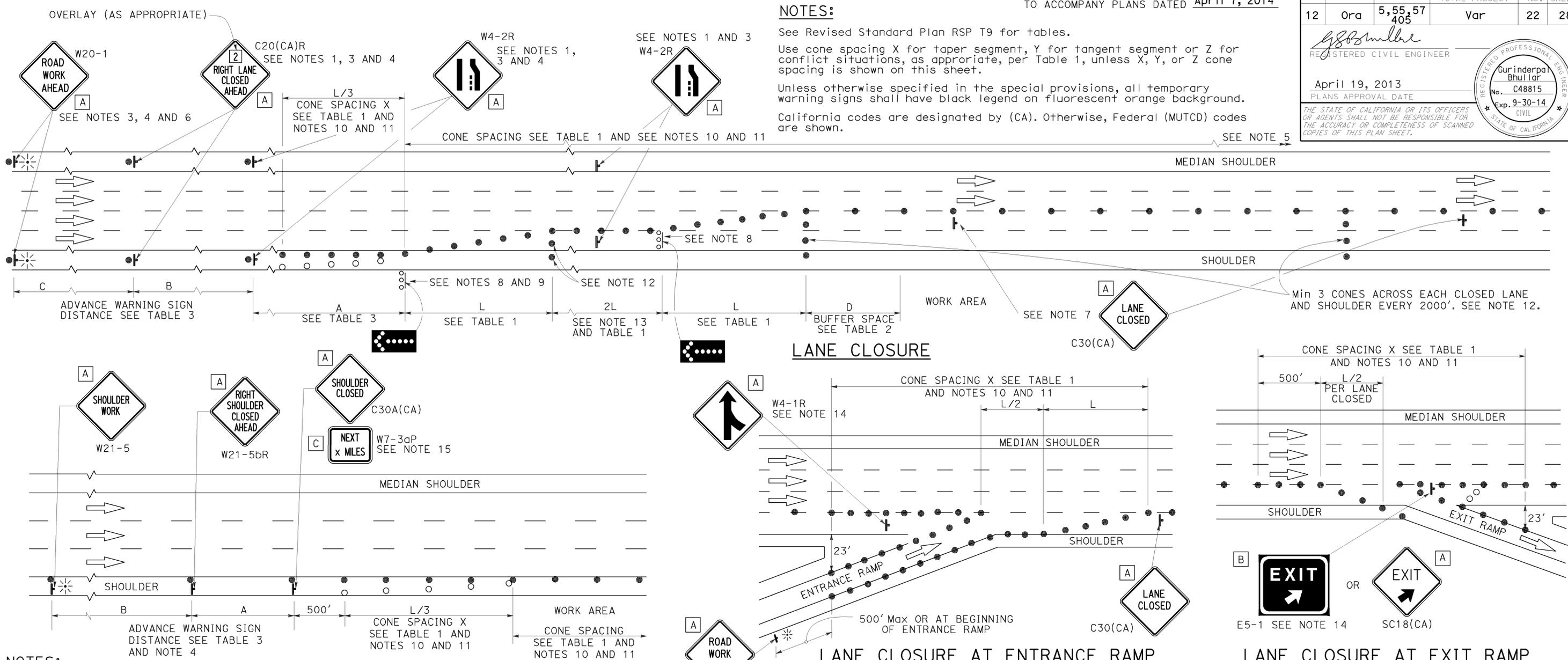
REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED April 7, 2014

NOTES:

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



NOTES:

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

SHOULDER CLOSURE

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

LANE CLOSURE AT ENTRANCE RAMP

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

LEGEND

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

SIGN PANEL SIZE (Min)

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

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	23	28

TO ACCOMPANY PLANS DATED April 7, 2014

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

April 19, 2013
PLANS APPROVAL DATE

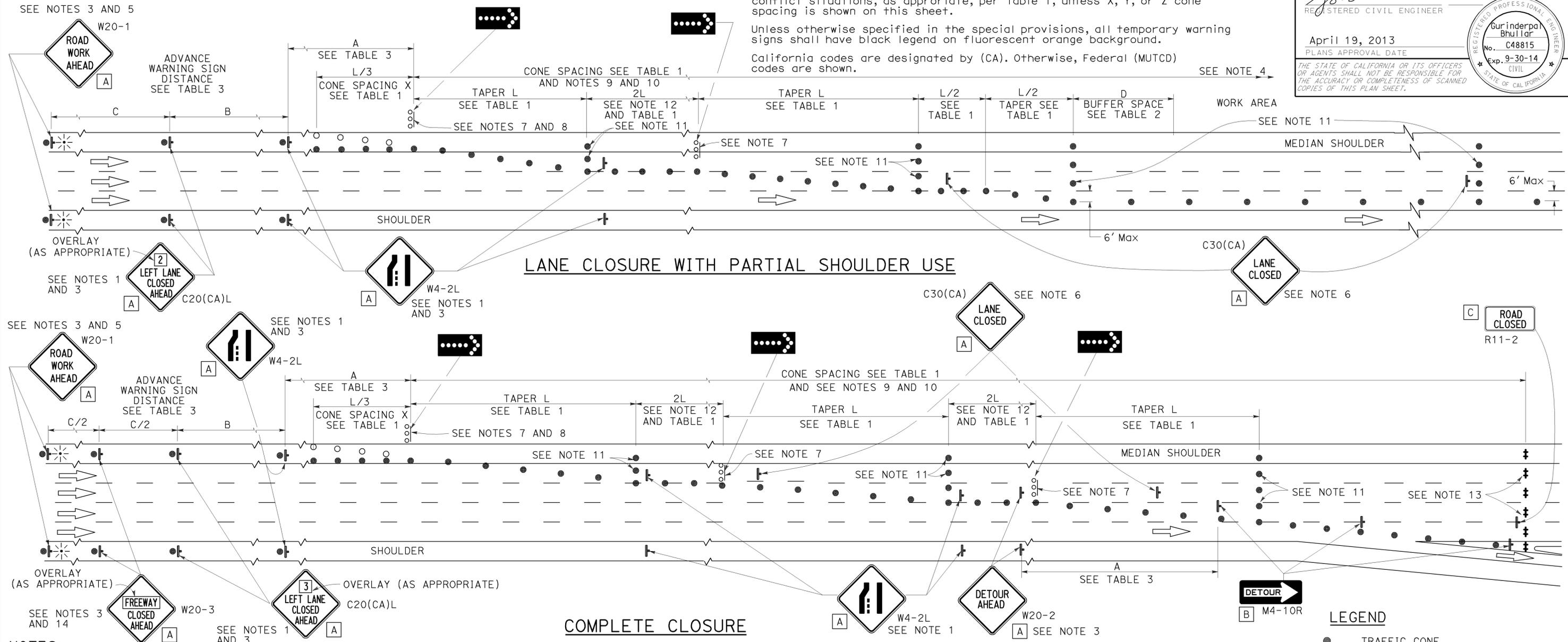
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NOTES: See Revised Standard Plan RSP T9 for tables.

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

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

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



- NOTES:**
- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
 - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
 - Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
 - If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT ___ MILES", use a C20(CA) sign for the first advance warning sign.
 - Place a C30(CA) sign every 2000' throughout length of lane closure.

- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

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

LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T10A

2010 REVISED STANDARD PLAN RSP T10A

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

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

LEGEND

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	24	28

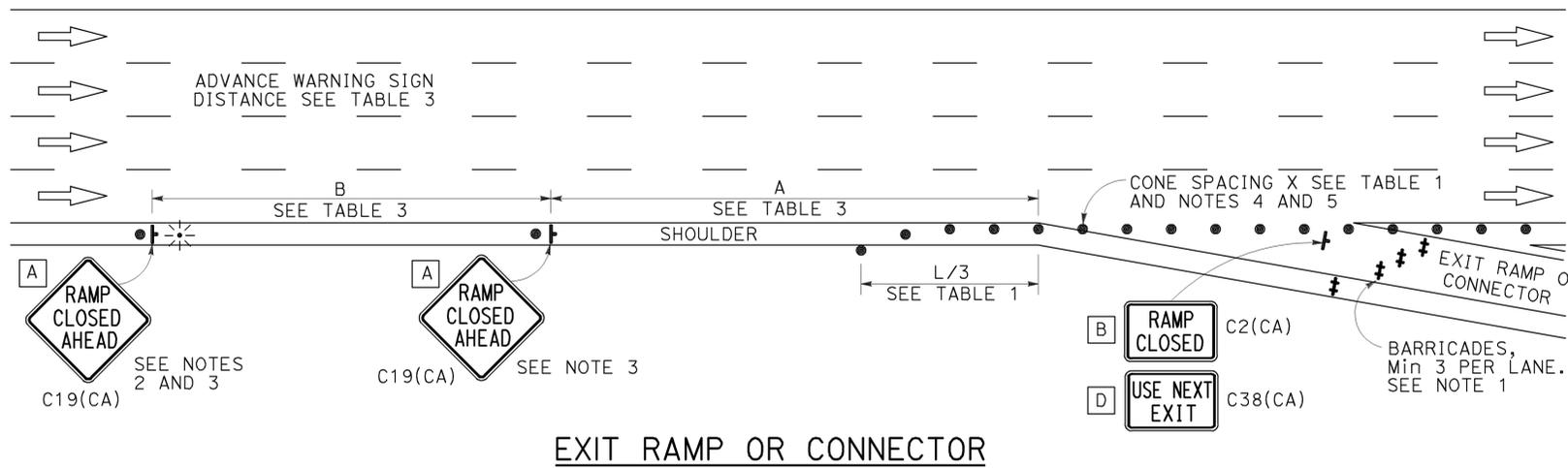
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
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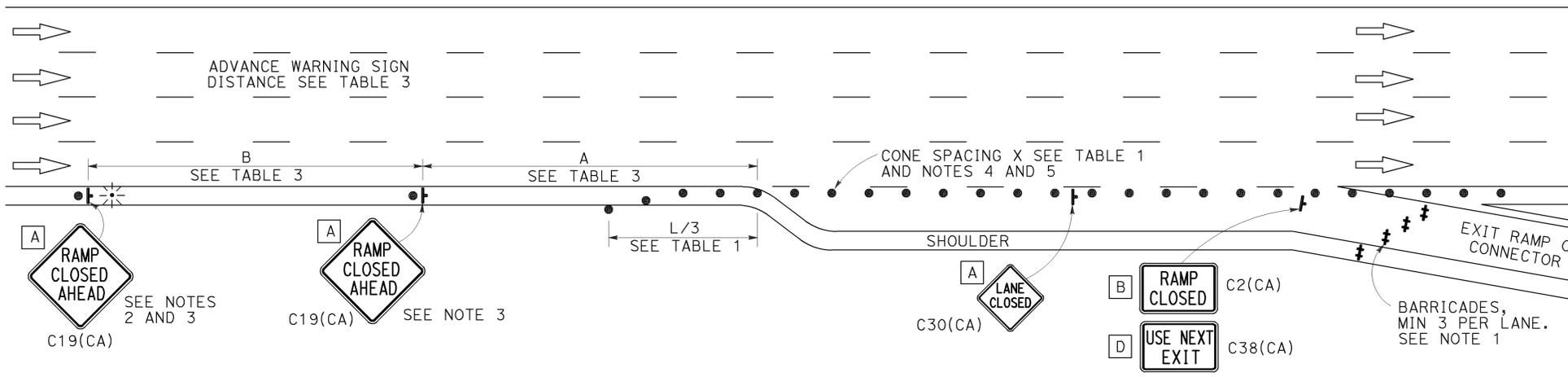
TO ACCOMPANY PLANS DATED April 7, 2014

NOTES:

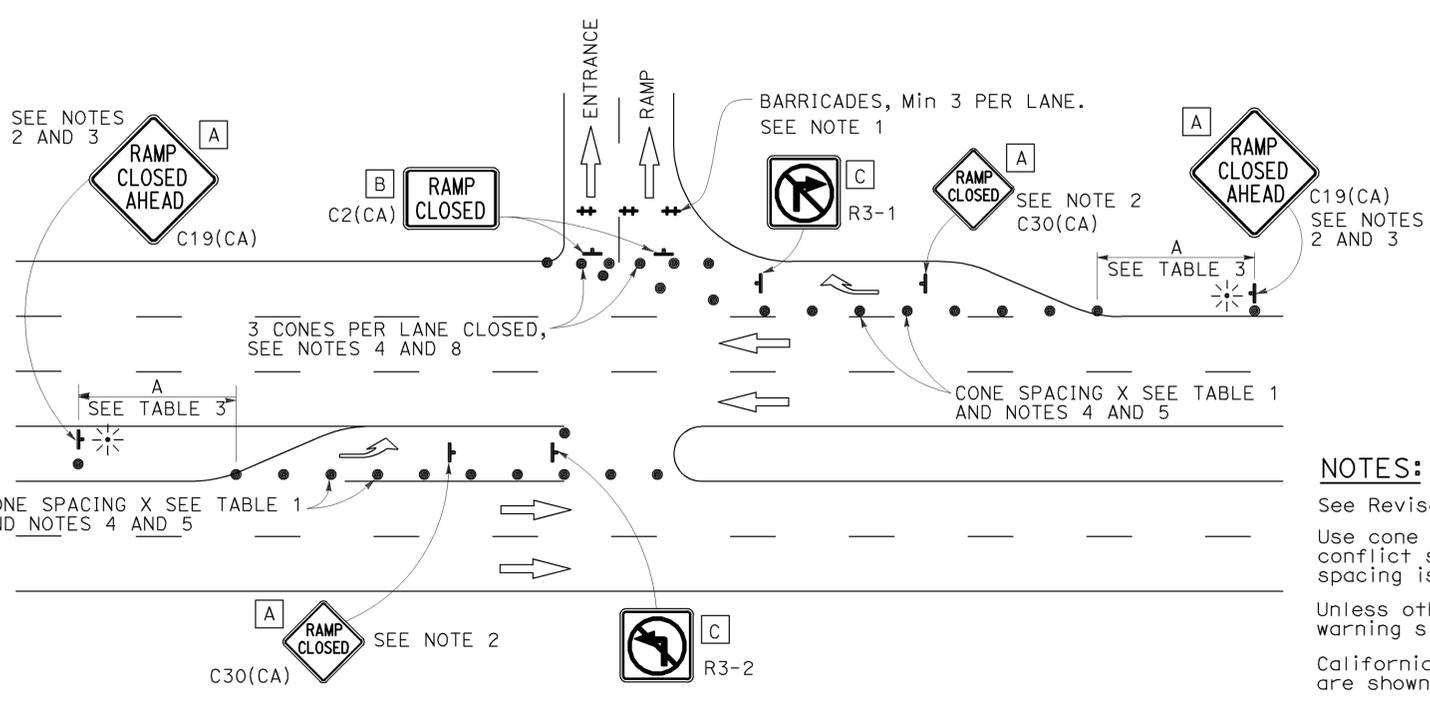
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed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



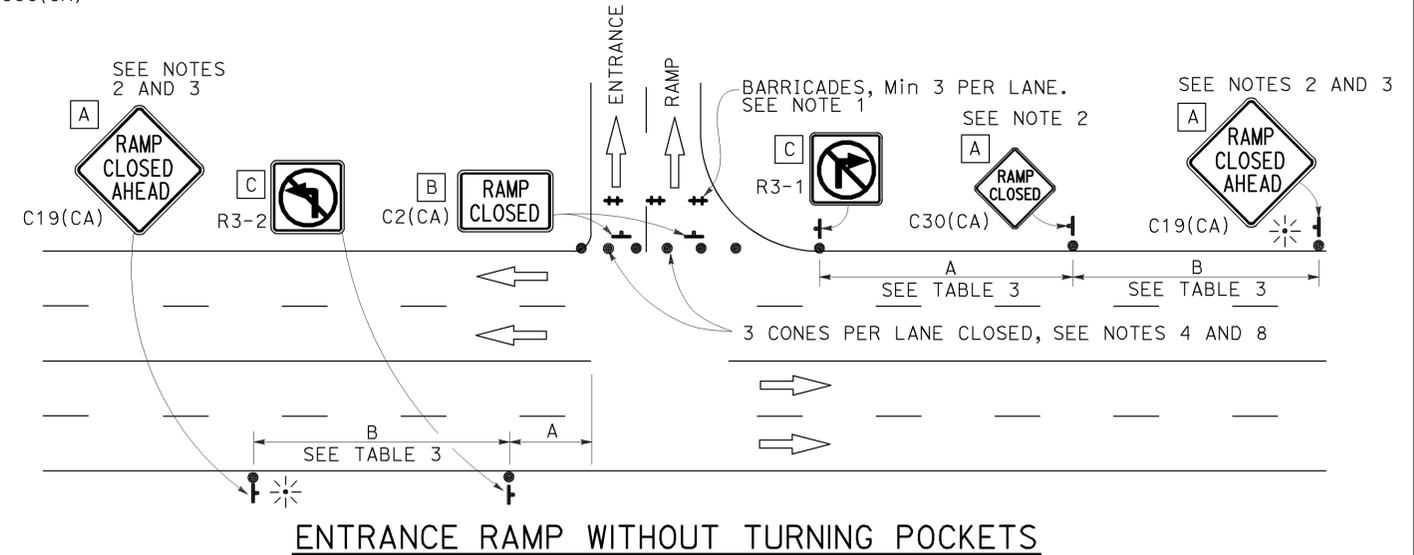
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

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

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

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

REVISED STANDARD PLAN RSP T14

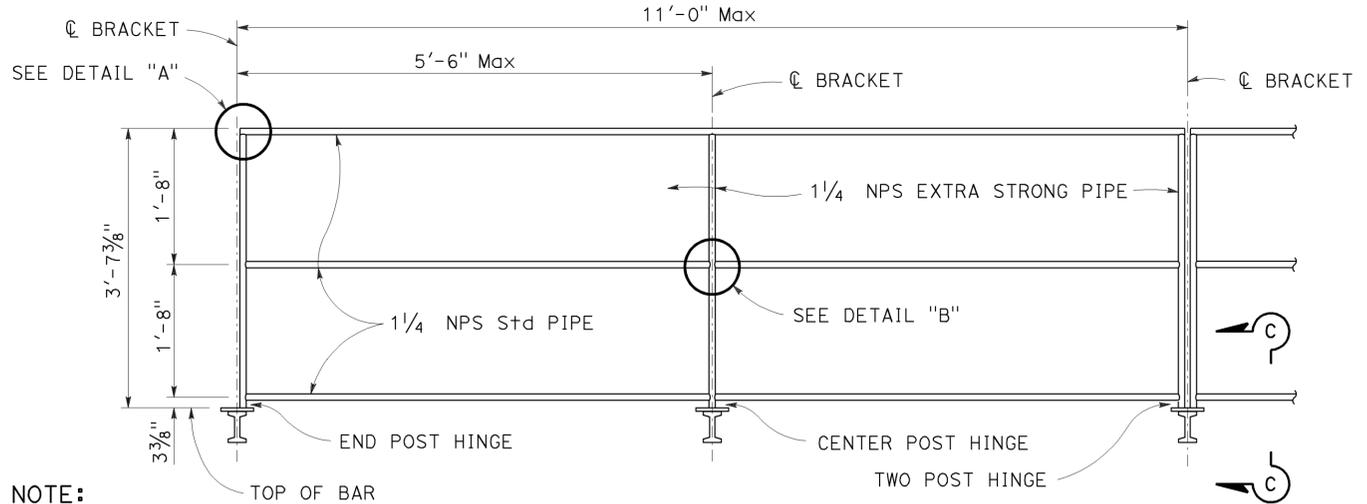
2010 REVISED STANDARD PLAN RSP T14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	25	28

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
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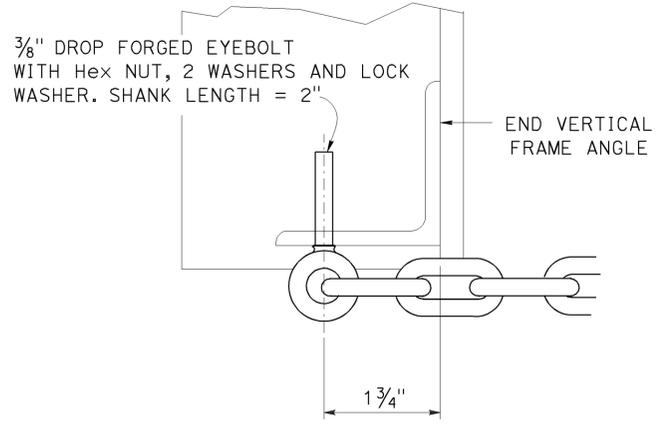
TO ACCOMPANY PLANS DATED April 7, 2014



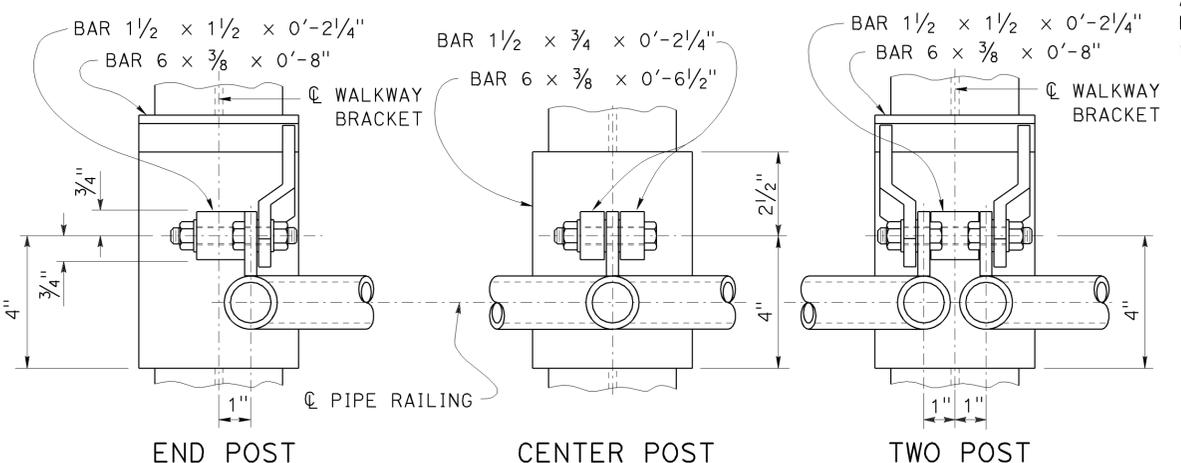
SAFETY RAILING ELEVATION

NOTE:
Chain assembly behind (see detail this page)

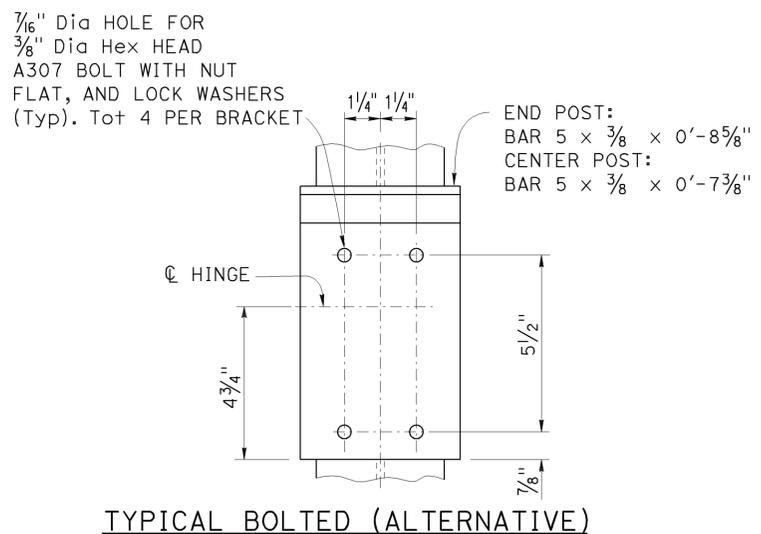
NOTE:
See Standard Plans S101 and S105 and S109 for walkway bracket spacing.



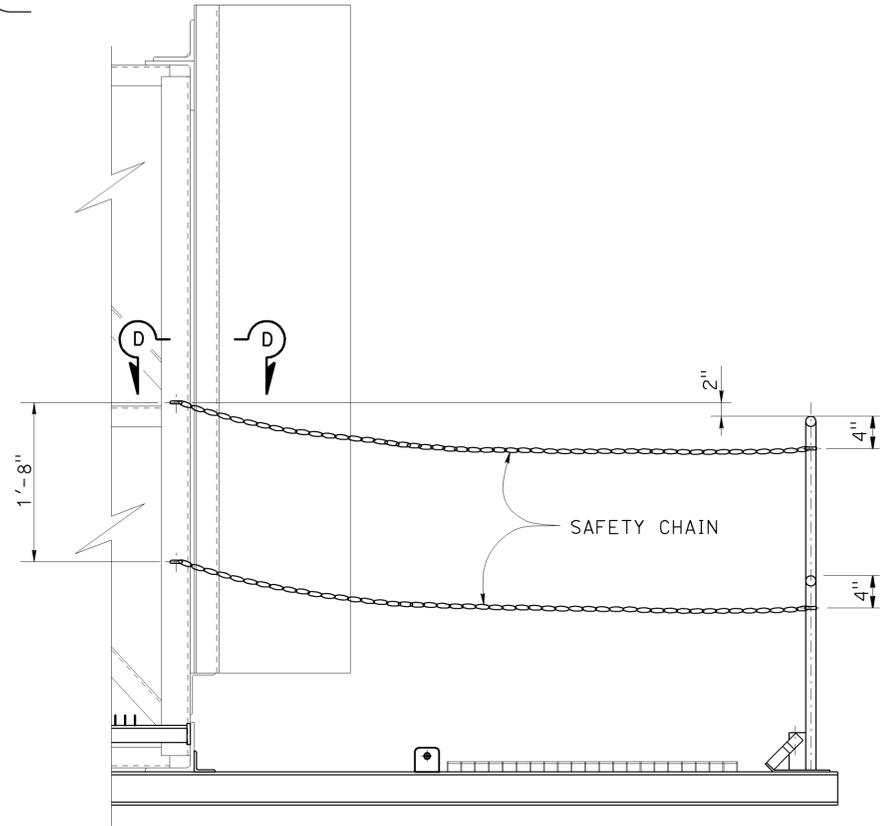
SECTION D-D



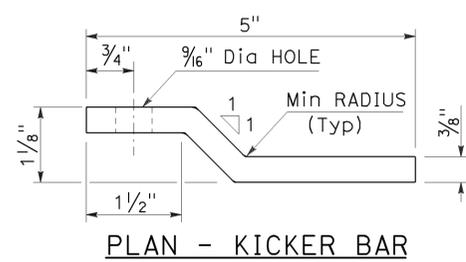
WELDED HINGE - PLAN



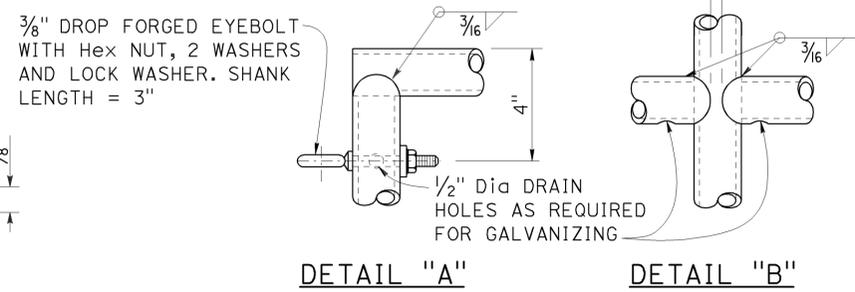
TYPICAL BOLTED (ALTERNATIVE) HINGED CONNECTION



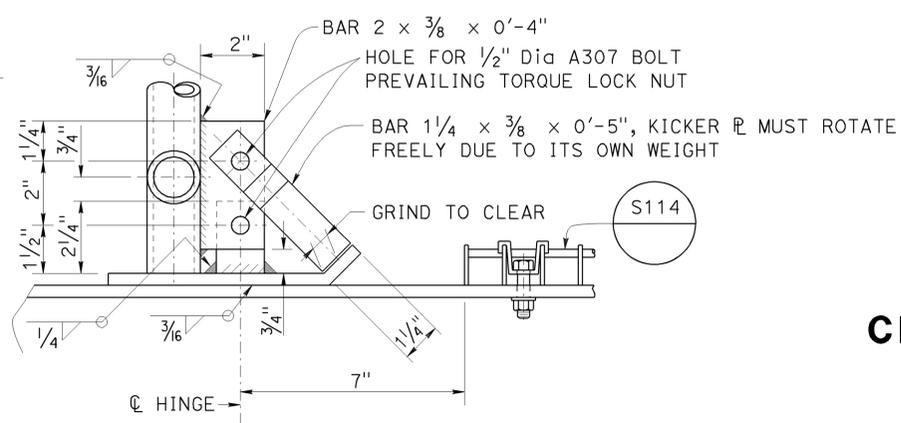
CHAIN ASSEMBLY



PLAN - KICKER BAR



NOTE:
Alternative venting methods may be used if approved by the Engineer.



SECTION C-C ELEVATION VIEW

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**OVERHEAD SIGN-TRUSS
 SINGLE POST TYPE
 WALKWAY SAFETY
 RAILING DETAILS
 CHANGEABLE MESSAGE SIGNS
 MODEL 500 AND 510**
 NO SCALE

RSP S140 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN S140
 DATED MAY 20, 2011 - PAGE 422 OF THE STANDARD PLANS BOOK DATED 2010.

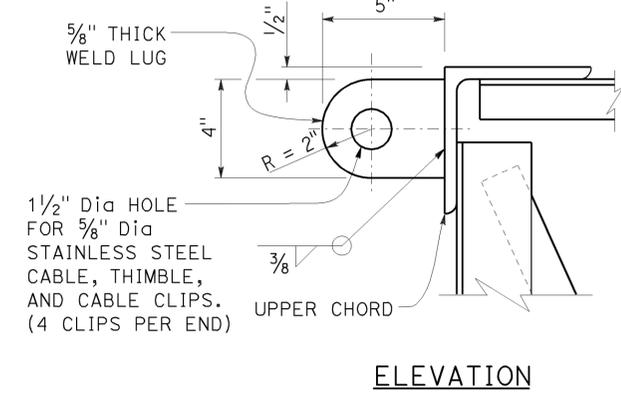
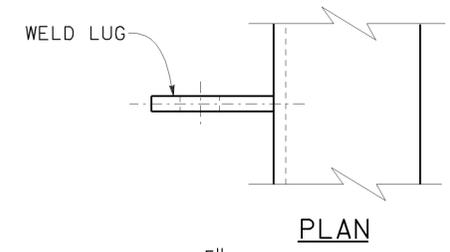
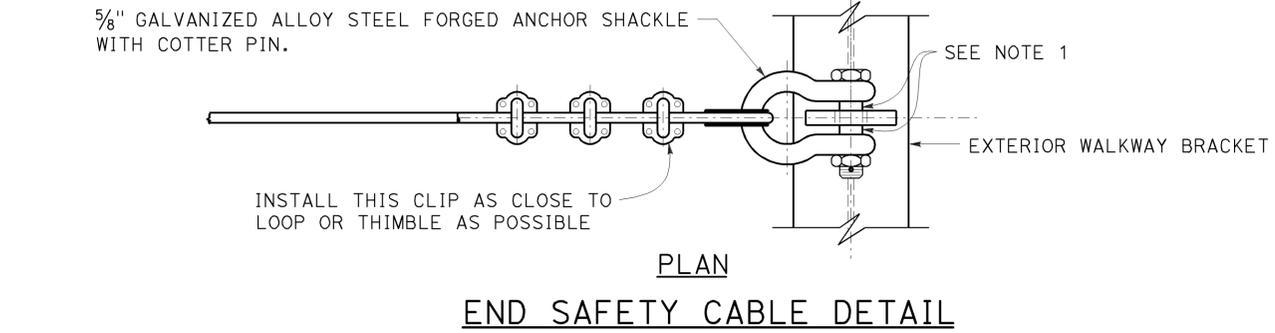
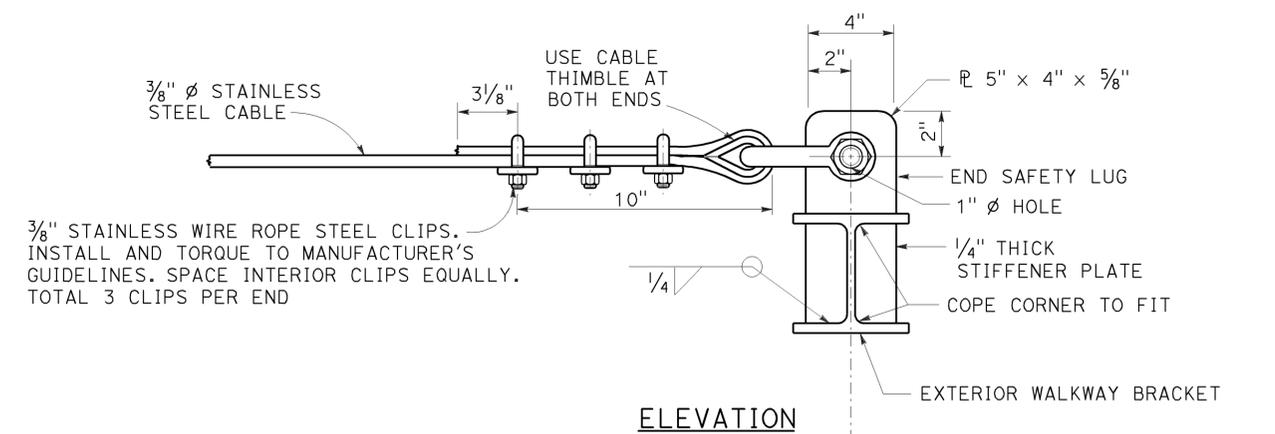
REVISED STANDARD PLAN RSP S140

2010 REVISED STANDARD PLAN RSP S140

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	26	28

Stanley P. Johnson
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 July 19, 2013
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2010 REVISED STANDARD PLAN RSP S141

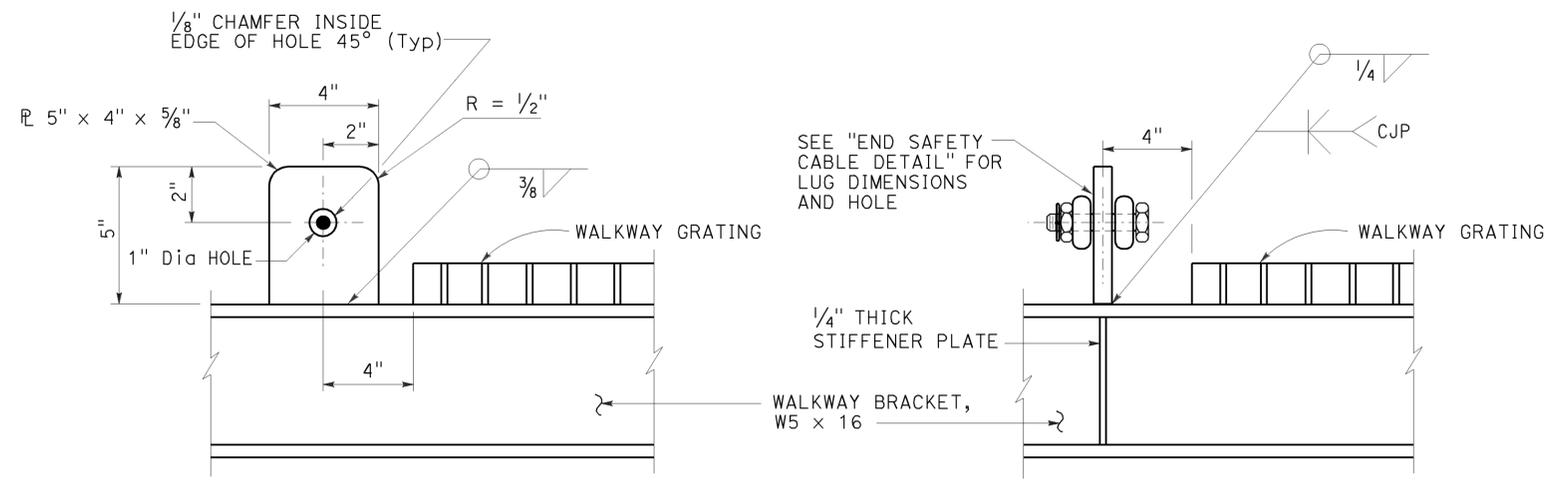


BACKSIDE WELD LUG DETAIL

NOTE: Backside weld lug shall be installed only for projects requiring backside walkways.

NOTES:

1. Place an equal amount of washers on each side to align cable with end lug without restricting shackle bolt rotation or contacting cable.
2. For walkway grating details, see Standard Plan S114.



INTERIOR SAFETY LUG DETAIL

END SAFETY LUG DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**OVERHEAD SIGN-TRUSS
 SINGLE POST TYPE
 SAFETY CABLE
 ANCHORAGE DETAILS
 CHANGEABLE MESSAGE SIGNS
 MODEL 500 AND 510**

NO SCALE

RSP S141 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN S141 DATED MAY 20, 2011 - PAGE 423 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP S141

LEGEND:

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

ABBREVIATIONS

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57 405	Var	27	28

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED April 7, 2014

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

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

MISCELLANEOUS ELECTROLIERS

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

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

STANDARD ELECTROLIER

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

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

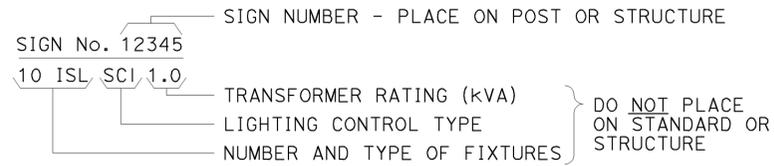
REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

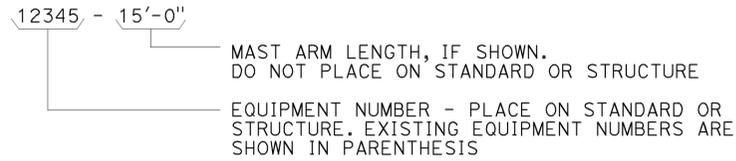
TO ACCOMPANY PLANS DATED April 7, 2014

EQUIPMENT IDENTIFICATION

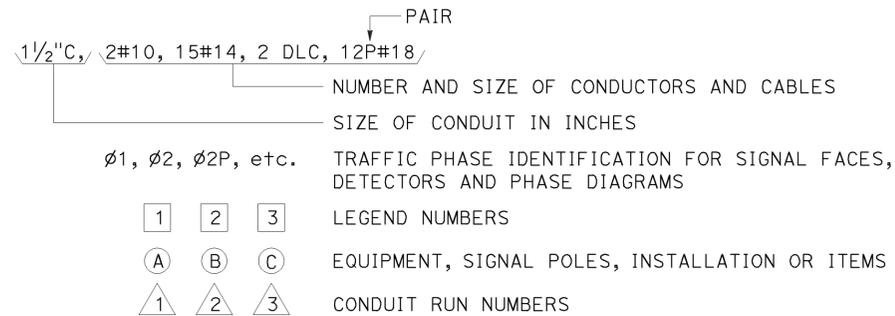
ILLUMINATED SIGN IDENTIFICATION NUMBER:



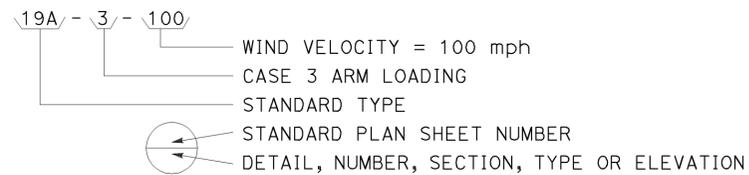
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



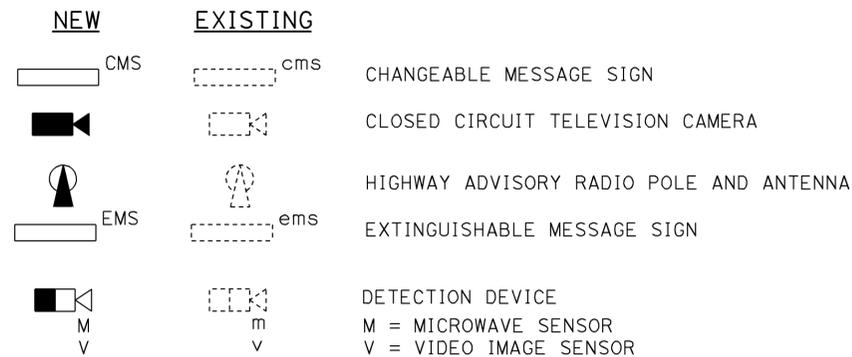
CONDUIT AND CONDUCTOR IDENTIFICATION:



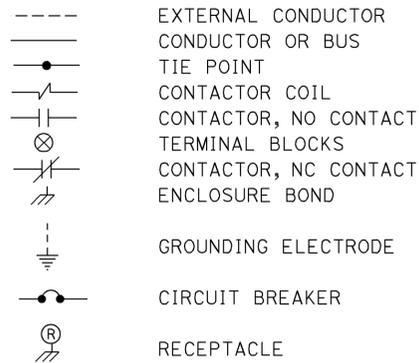
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



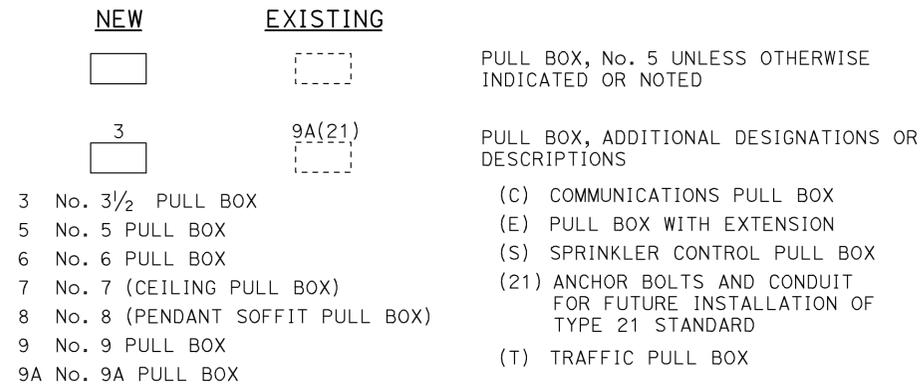
MISCELLANEOUS EQUIPMENT



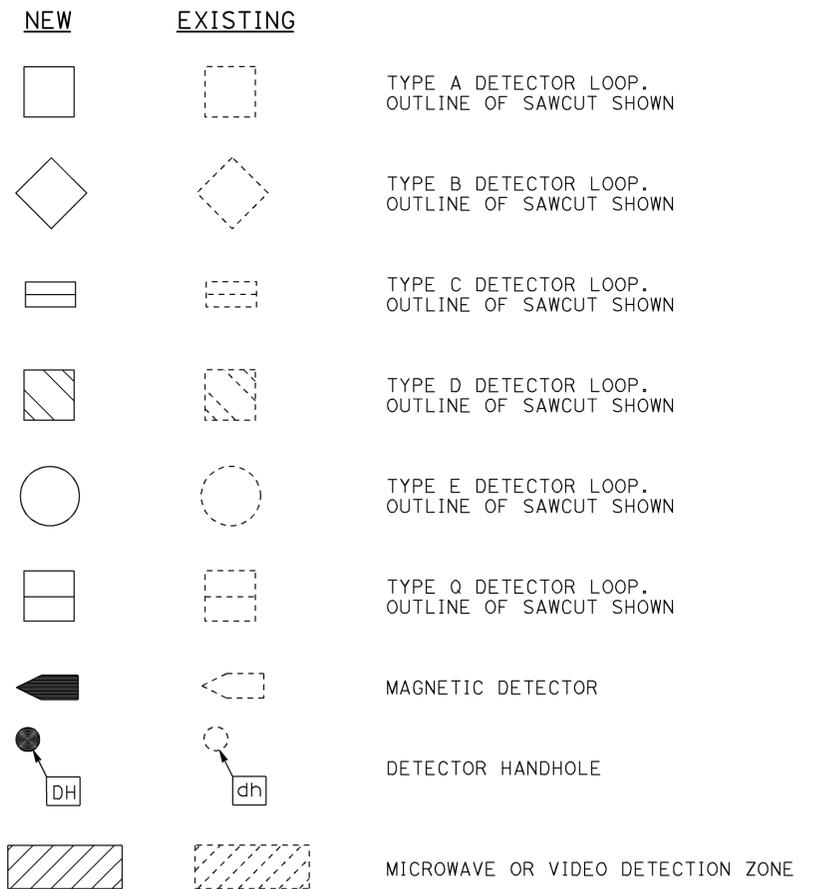
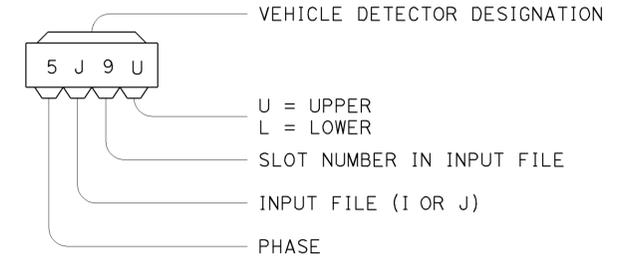
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

2010 REVISED STANDARD PLAN RSP ES-1C