Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	1	44

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

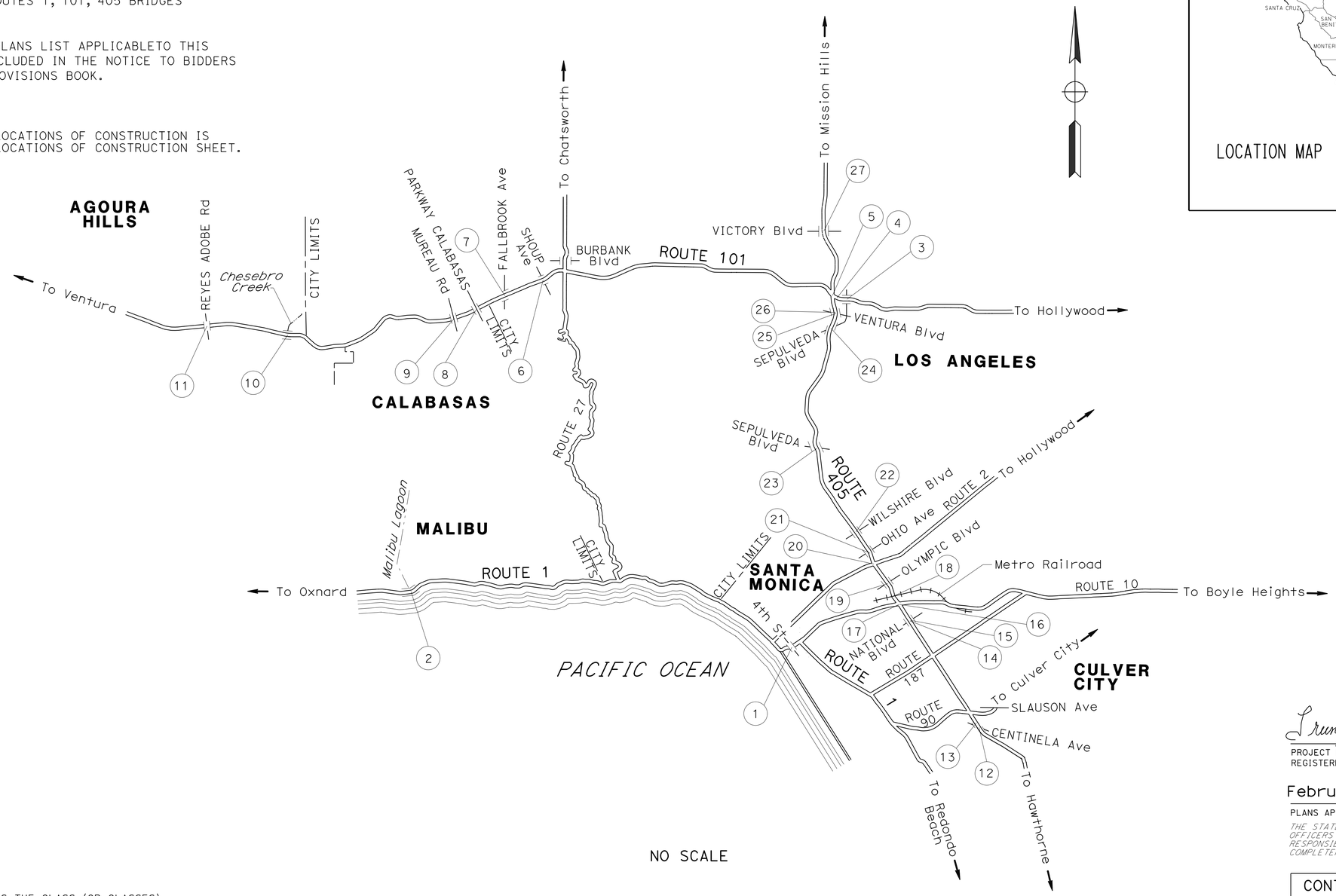
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LOCATIONS OF CONSTRUCTION
3	CONSTRUCTION DETAILS
4	CONSTRUCTION AREA SIGNS
5-12	TRAFFIC HANDLING DETAILS
13	PAVEMENT DELINEATION DETAILS
14-15	PAVEMENT DELINEATION QUANTITIES
16-29	REVISED STANDARD PLANS

STRUCTURE PLANS

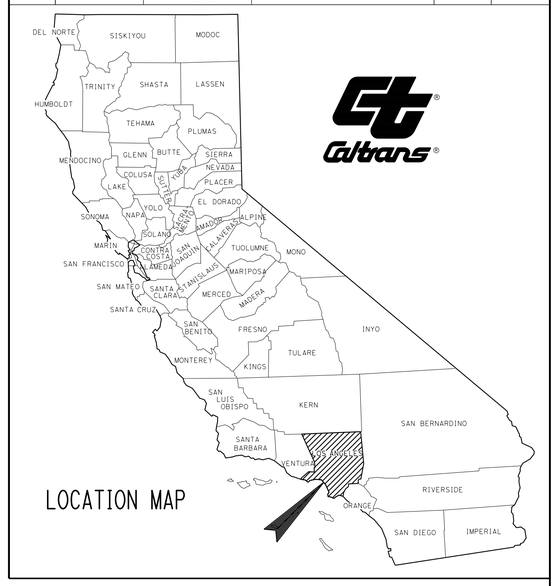
30-44	ROUTES 1, 101, 405 BRIDGES

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

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



NO SCALE



Trung Phan 2-1-16
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

February 22, 2016
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRUNG PHAN No. 77878 Exp. 6-30-17 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.

CONTRACT No.	07-2W9804
PROJECT ID	0715000031

LAST REVISION 02-22-16

DATE PLOTTED => 10-FEB-2016
TIME PLOTTED => 11:07

PROJECT MANAGER CHRISTIAN SAM

DESIGN MANAGER AYUBUR RAHMAN

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
07	LA	1, 101, 405	Var	2	44

Trung Phan 2-1-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TRUNG PHAN
No. 77878
Exp. 6-30-17
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.

LOCATIONS OF CONSTRUCTION

LOCATION (X)	ROUTE	PM	BRIDGE No.	BRIDGE NAME
1	1	R34.89	53-1592	FOURTH St OC
2	1	46.88	53-2818	MALIBU LAGOON
3	101	16.94	53-1102L	SEPULVEDA Blvd UC
4	101	17.07	53-1145L	N405-N101 CONNECTOR UC
5	101	17.14	53-1146F	S101-N405 CONNECTOR OC
6	101	25.88	53-1095	SHOUP Ave UC
7	101	26.45	53-1066	FALLBROOK Ave UC
8	101	28.29	53-1680	PARKWAY CALABASAS OC
9	101	29.06	53-1681	MUREAU Rd OC
10	101	33.91	53-0755	CHESEBRO CREEK
11	101	36.18	53-1726	REYES ADOBE OC
12	405	25.27	53-1253	CENTINELA Ave UC
13	405	25.46	53-1254	SEPULVEDA Blvd UC
14	405	29.16	53-0703	NATIONAL Blvd UC
15	405	29.16	53-0703G	N405-E&W10 CONNECTOR OC
16	405	29.42	53-1638G	N405-E10 CONNECTOR OC
17	405	29.43	53-1630G	N405-W10 CONNECTOR OC
18	405	29.85	53-0704F	S405-E&W10 CONNECTOR OC
19	405	30.18	53-0706	OLYMPIC Blvd UC
20	405	30.86	53-0708	ROUTE 405/2 SEPARATION
21	405	31.05	53-1097	OHIO Ave UC
22	405	31.54	53-0710	WILSHIRE Blvd UC
23	405	34.76	53-0695	SEPULVEDA Blvd UC
24	405	38.59	53-0740	SEPULVEDA Blvd UC
25	405	39.00	53-0741G	N405-101 ON OC
26	405	39.00	53-0741	VENTURA Blvd UC
27	405	41.36	53-1449	VICTORY Blvd UC

LOCATIONS OF CONSTRUCTION

LC-1

REVISED BY | DATE REVISED
TRUNG PHAN | AYUBUR RAHMAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
AYUBUR RAHMAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 02-22-16 | DATE PLOTTED => 10-FEB-2016 | TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	3	44

Trung Phan 2-1-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRUNG PHAN No. 77878 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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

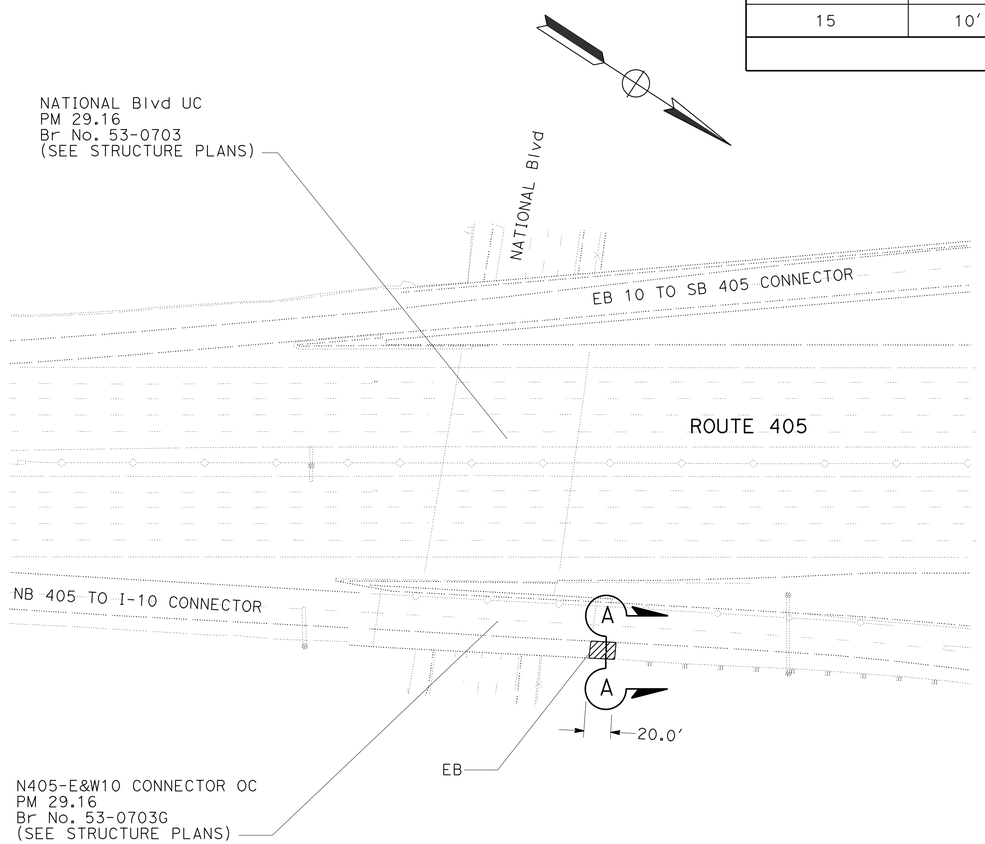
NOTES:

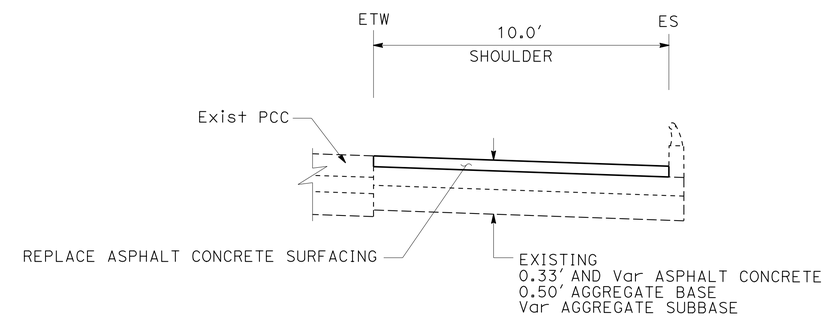
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. EXISTING DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. EXEMPT PROJECT PER UTILITY POLICY, UTILITIES ARE NOT SHOWN.

LEGEND:

REPLACE ASPHALT CONCRETE SURFACING

REPLACE ASPHALT CONCRETE SURFACING			
LOCATION	DIMENSIONS W x L	DEPTH	VOLUME (CY)
15	10′ x 20′	0.33′	2.44
		TOTAL	2.44





SECTION A-A

REPLACE ASPHALT CONCRETE SURFACING
LOCATION 15

CONSTRUCTION DETAIL

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: AYUBUR RAHMAN
CALCULATED-DESIGNED BY: TRUNG PHAN
CHECKED BY: AYUBUR RAHMAN
REVISED BY / DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 10-FEB-2016
TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	4	44

REGISTERED CIVIL ENGINEER Trung Phan DATE 2-1-16

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRUNG PHAN No. 77878 Exp. 6-30-17 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:

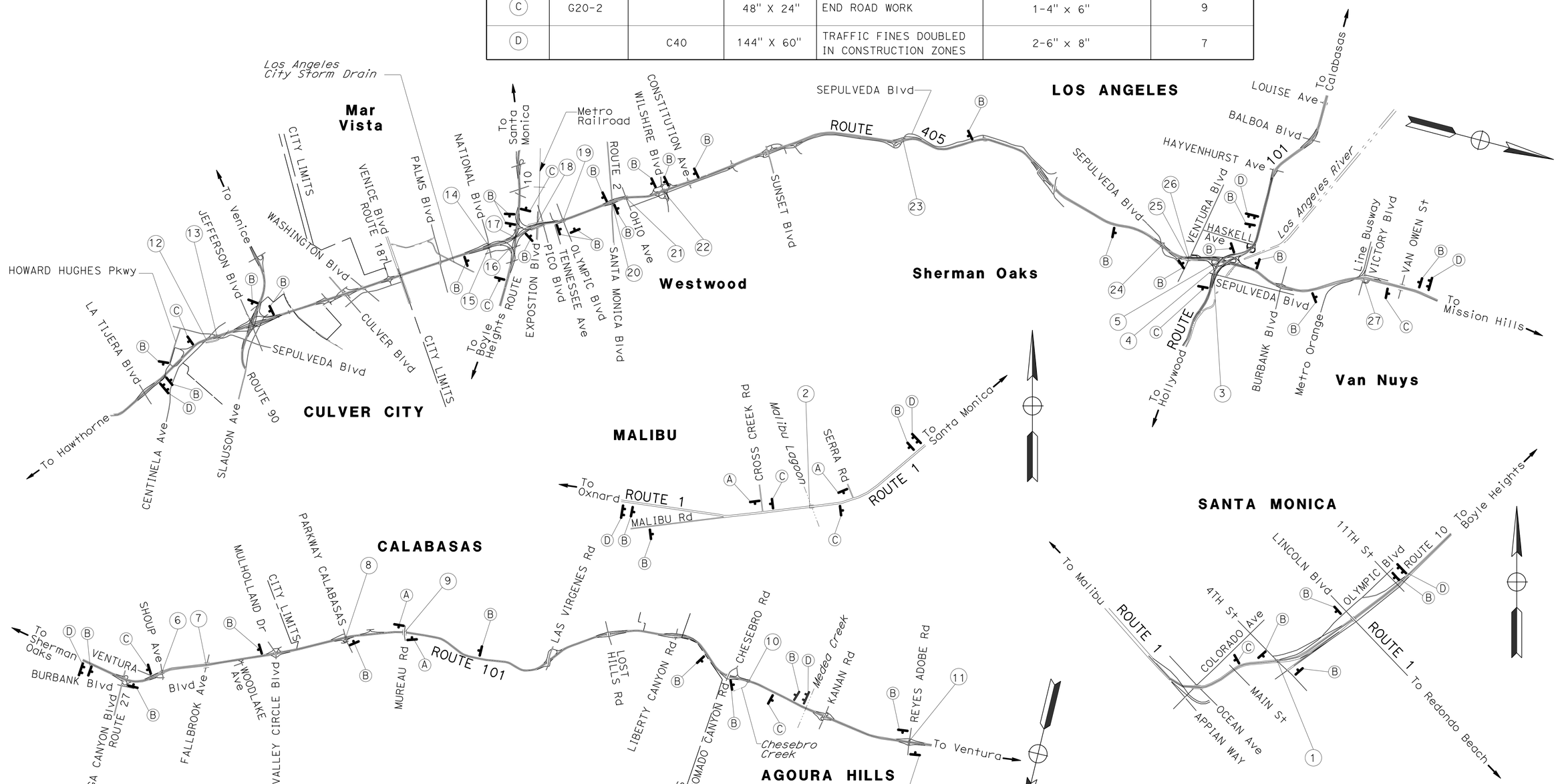
LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

LEGEND:

(#) INDICATES LOCATIONS OF CONSTRUCTION

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN NUMBER	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
A	W20-1		36" X 36"	ROAD WORK AHEAD	1-4" x 6"	4
B	W20-1		48" X 48"	ROAD WORK AHEAD	1-6" x 6"	38
C	G20-2		48" X 24"	END ROAD WORK	1-4" x 6"	9
D		C40	144" X 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2-6" x 8"	7



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: AYUBUR RAHMAN
CALCULATED-DESIGNED BY: TRUNG PHAN
CHECKED BY: AYUBUR RAHMAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 10-FEB-2016
TIME PLOTTED => 11:07

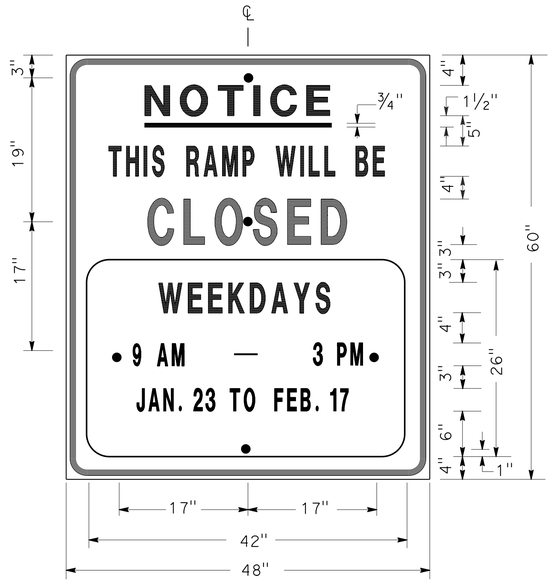
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	5	44

REGISTERED CIVIL ENGINEER 2-3-16 DATE

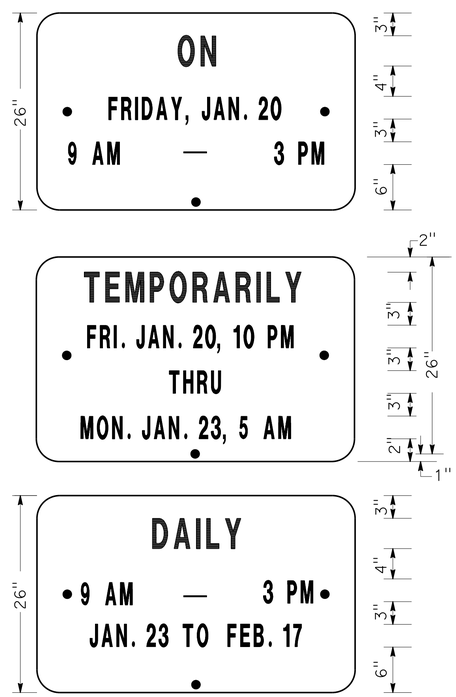
2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp 9/30/16 CIVIL STATE OF CALIFORNIA

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



SIGN SP-1



ALTERNATE OVERLAY PANELS (TYPICAL)

SPECIAL ADVANCE NOTICE PUBLICITY SIGN

NOTES: SIGN SP-1

1. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
2. BOLT HOLES MUST BE 3/8" DIAMETER.
3. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
4. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.

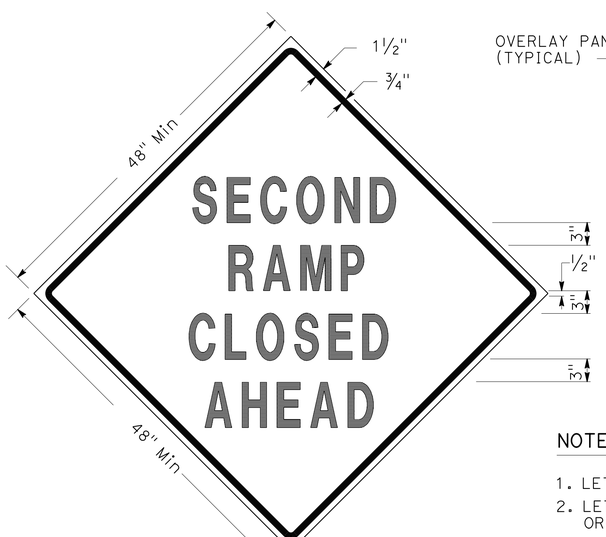
SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"
* CONDENSED SPACING IF NECESSARY								

SIGN SP-4

NOTES: SIGN SP-4

1. LETTERS - 6" SERIES C.
2. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
3. BOLT HOLES MUST BE 3/8" DIAMETER.
4. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
5. SIGNS MUST BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH REVISED STANDARD PLAN RSP T14.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES



SIGN SP-3

SIGN SP-5

NOTES: SIGNS SP-3 & SP-5

1. LETTERS - 6" SERIES D.
2. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
3. BOLT HOLES MUST BE 3/8" DIAMETER.
4. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
5. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.
6. SIGN SP-5 MUST BE USED IF THE OFF-RAMP TO BE CLOSED FOLLOWS A FREEWAY OFF-CONNECTOR.

SPECIAL SIGNS FOR EXIT RAMP CLOSURES

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS
SHEET 1 OF 2
NO SCALE

THD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-22-16 | DATE PLOTTED => 10-FEB-2016 | TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	6	44

REGISTERED CIVIL ENGINEER 2-3-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp 9/30/16 CIVIL STATE OF CALIFORNIA

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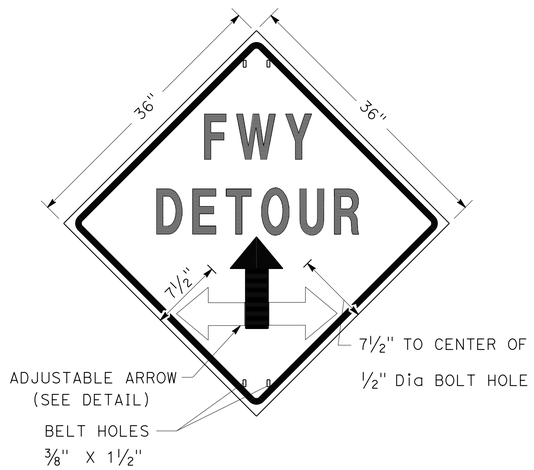
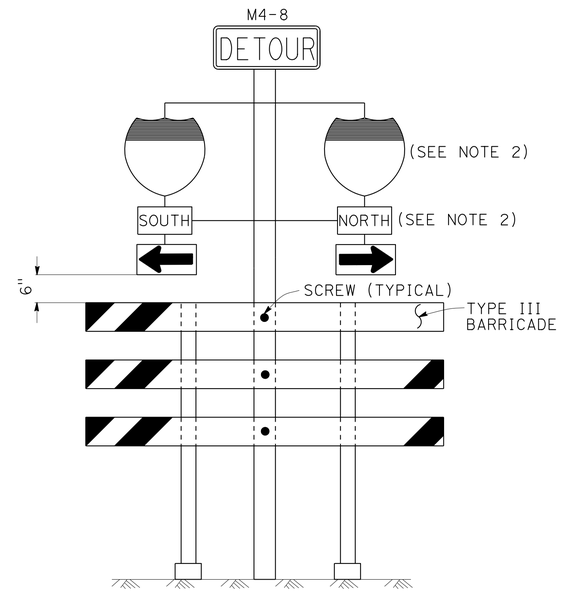
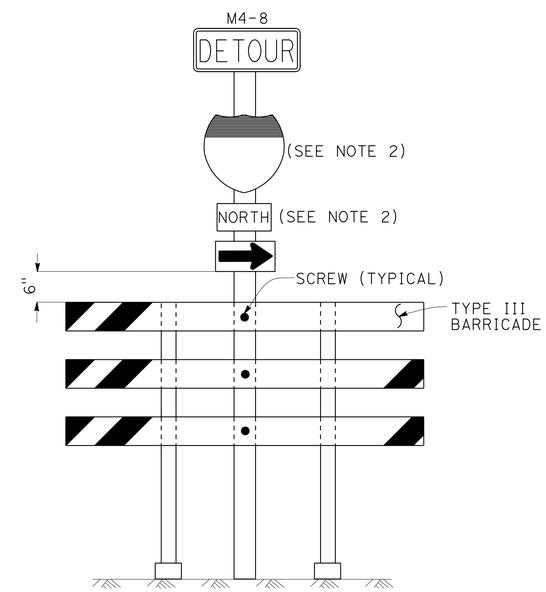


SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

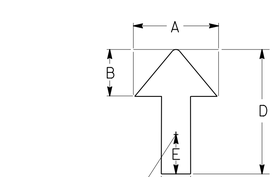
NOTES: SIGN SP-2

1. LETTERS - 6" SERIES E.
2. LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
3. BASE MATERIAL FOR SIGNS AND ARROWS MUST BE ALUMINUM (MINIMUM 0.06").
4. BELTS (LUGGAGE STRAPS) MUST BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
5. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

NOTES: SIGNS SP-6 & SP-7

1. IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
2. USE APPROPRIATE ROUTE MARKER [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)].

SPECIAL PORTABLE FREEWAY DETOUR SIGNS



DIMENSIONS				
A	B	C	D	E
6"	3"	2"	8"	1"

ADJUSTABLE ARROW DETAIL

ABBREVIATION

(CA) CALIFORNIA CODE

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS

SHEET 2 OF 2

NO SCALE

THD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION: DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 23:40
02-22-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	7	44

REGISTERED CIVIL ENGINEER 2-3-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp. 9/30/16 CIVIL STATE OF CALIFORNIA

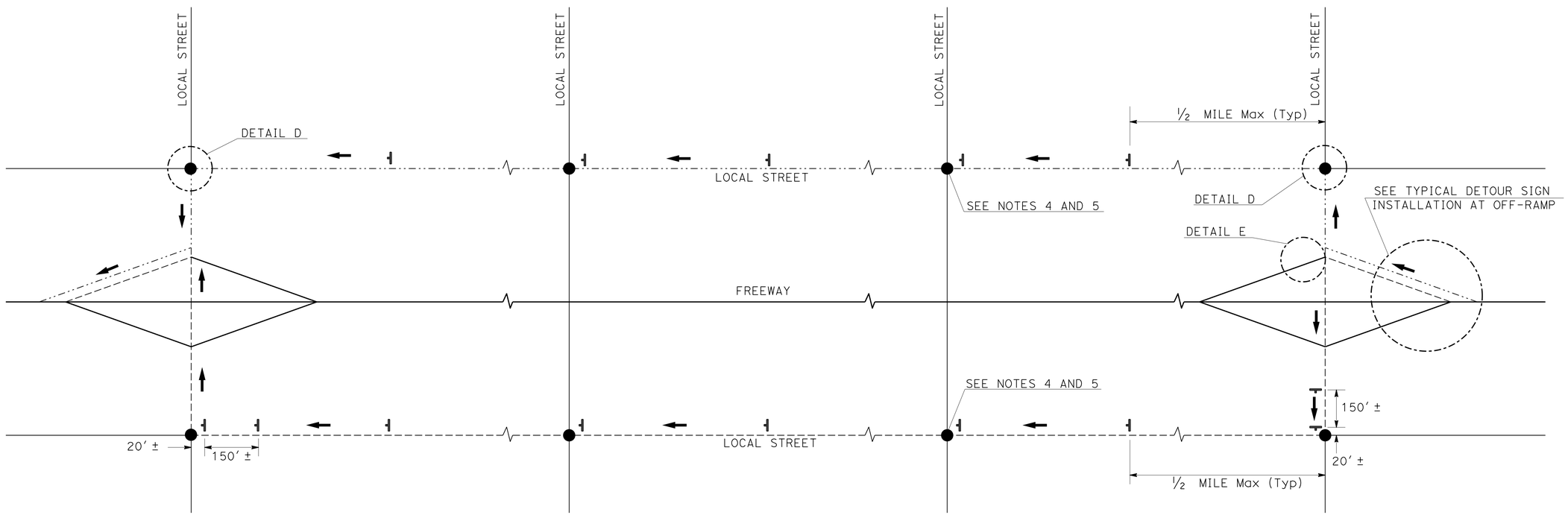
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

- SIGN SP-2
- AND/OR — DESIGNATED DETOUR ROUTE
- DETOUR DIRECTION
- CONTROLLED INTERSECTION

NOTES:

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
4. SP-2 SIGNS MUST BE POSTED AT EACH CONTROLLED INTERSECTION (EXCEPT AT COMMERCIAL PROPERTY, RESIDENTIAL COMPLEX OR T-INTERSECTION FROM ONE-WAY STREET) ALONG THE DESIGNATED DETOUR ROUTE.
5. UNLESS OTHERWISE SHOWN ON OTHER THD PLANS, WHEN CONTROLLED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE ARE CLOSELY SPACED, PLACE SP-2 SIGNS AT CONTROLLED INTERSECTIONS AT A DISTANCE NOT TO EXCEED 1/4 MILE FROM THE PRECEDING DETOUR SIGN.
6. EXCEPT AS OTHERWISE SHOWN ON OTHER PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS, SP-2 SIGNS MUST BE PLACED AS SHOWN ON THIS PLAN.



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

SHEET 1 OF 2

NO SCALE

THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-22-16
DATE PLOTTED => 10-FEB-2016
TIME PLOTTED => 11:07

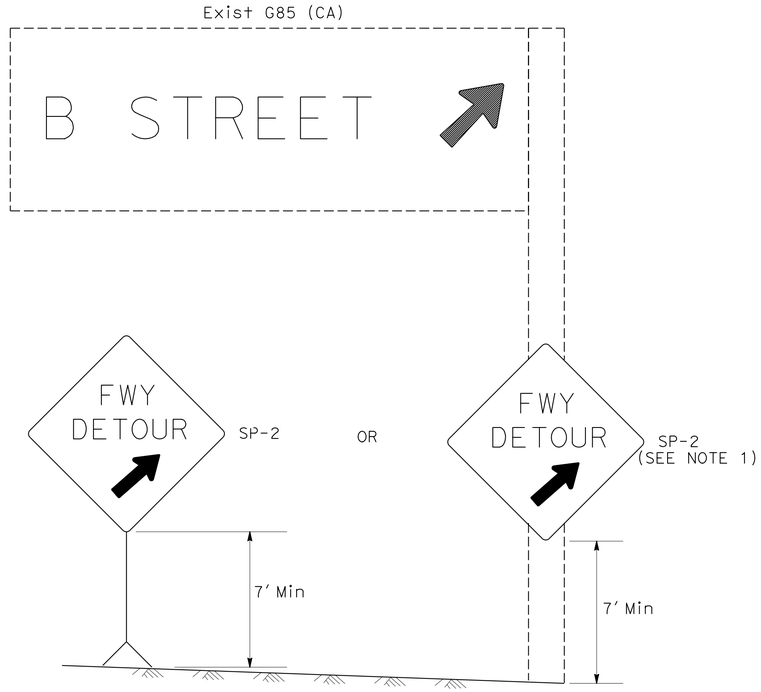
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	8	44

REGISTERED CIVIL ENGINEER 2-3-16 DATE

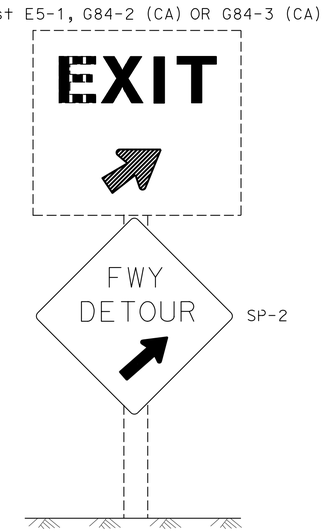
2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp 9/30/16 CIVIL STATE OF CALIFORNIA

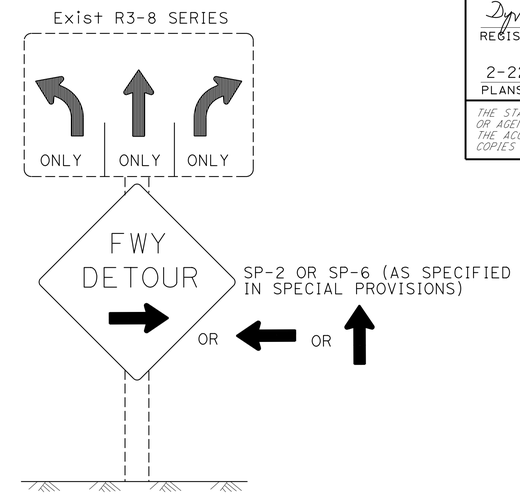
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



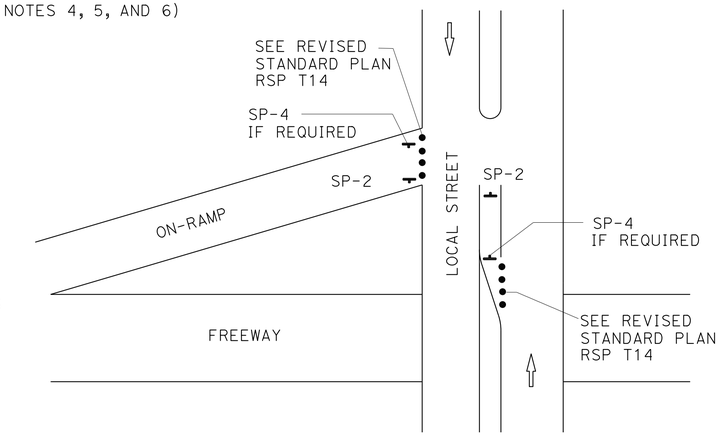
DETAIL A (SEE NOTE 3)



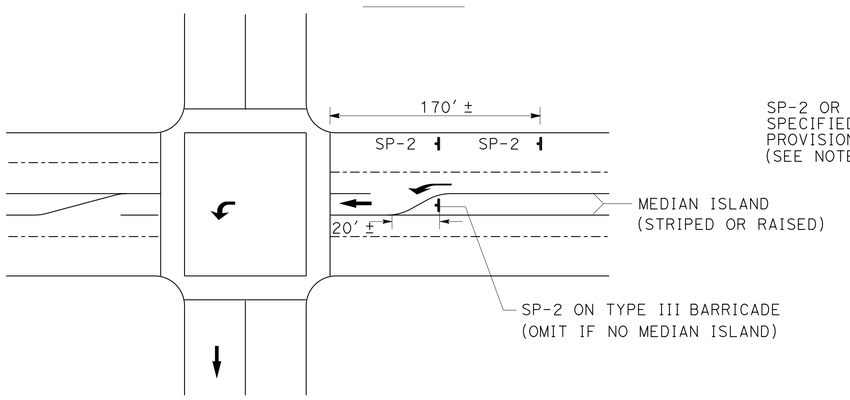
DETAIL B (SEE NOTE 3)



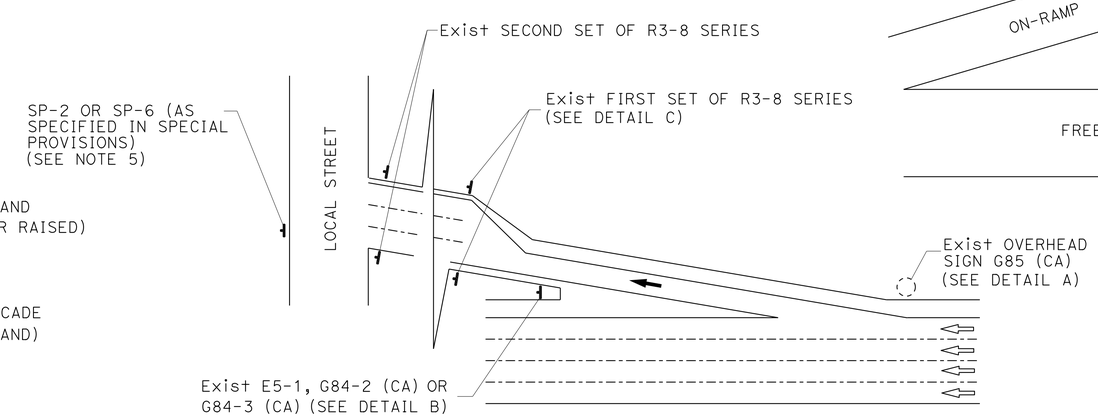
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL E



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

LEGEND

- • TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- → DETOUR DIRECTION
- ◌ EXISTING OVERHEAD SIGN

NOTES: SIGN SP-2

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
4. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-6 SIGN DETAILS.
5. IF R3-8 SERIES SIGNS ARE NOT PRESENT AT THE OFF-RAMP, SP-2 OR SP-6 SIGNS MUST BE FASTENED ONTO EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
6. EXCEPT FOR DETAILS A & B, OMIT SP-2 SIGNS IF RAMP HAS MANDATORY SINGLE MOVE.

SIGN CODE LEGEND

XXYY-Y: FEDERAL SIGN CODE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE SHEET 2 OF 2

NO SCALE

THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION: 02-22-16
DATE PLOTTED => 10-FEB-2016
TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	9	44

REGISTERED CIVIL ENGINEER DATE 2-3-16

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp. 9/30/16 CIVIL STATE OF CALIFORNIA

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

NOTES:

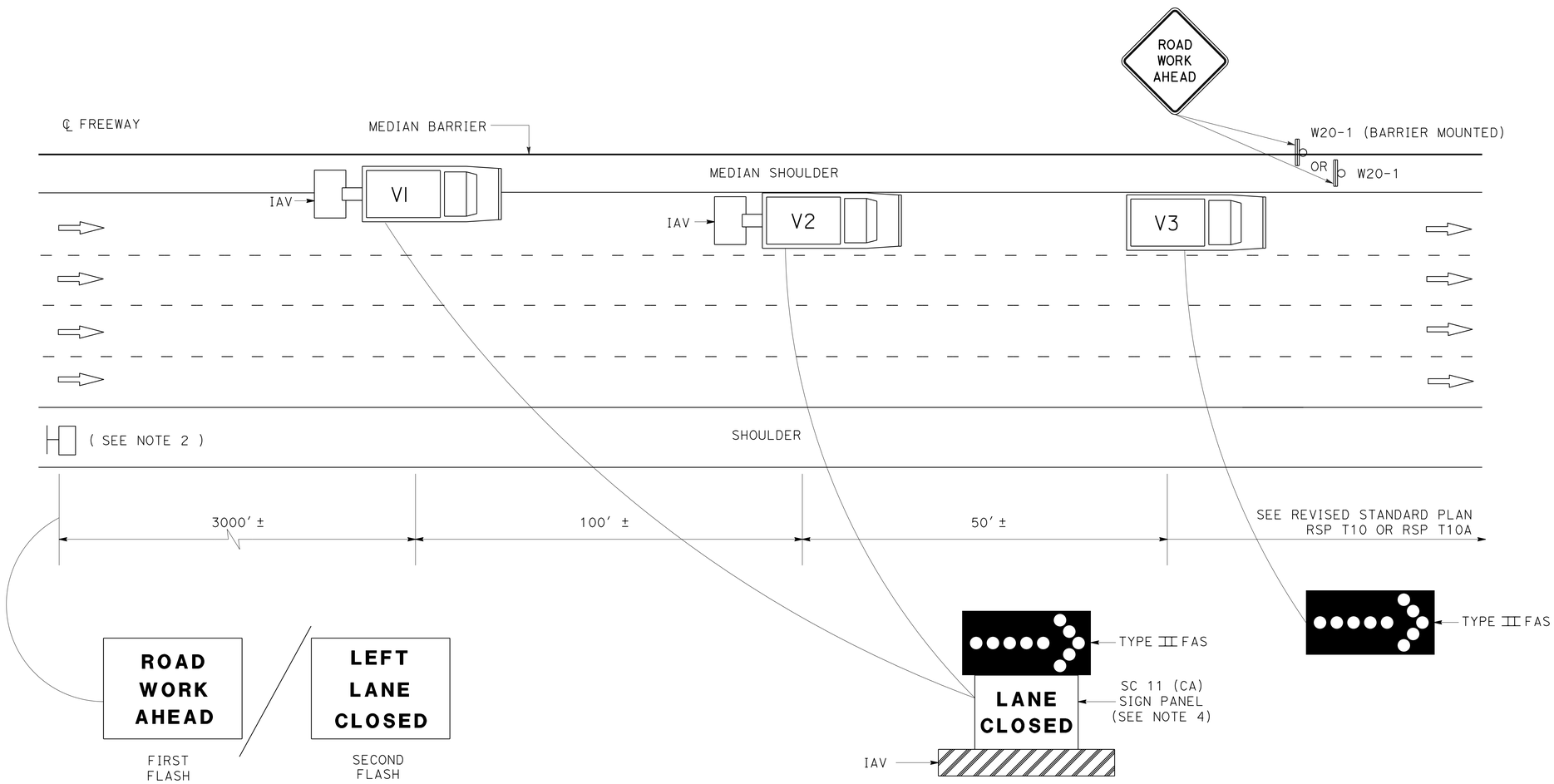
1. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS MUST BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500′ MUST BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.

LEGEND

V1, V2	SHADOW VEHICLES
V3	WORK/APPLICATION VEHICLE
	PCMS
	TEMPORARY TRAFFIC CONTROL SIGN
	FLASHING ARROW SIGN (FAS)

ABBREVIATIONS

IAV	IMPACT ATTENUATOR VEHICLE
(CA)	CALIFORNIA CODE



PCMS OR TRUCK MOUNTED CMS MESSAGE

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR MEDIAN SHOULDERS LESS THAN 8 FEET

NO SCALE

THD-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DTM

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-22-16 | DATE PLOTTED => 10-FEB-2016 | TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	10	44

REGISTERED CIVIL ENGINEER 2-3-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp. 9/30/16 CIVIL STATE OF CALIFORNIA

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

NOTES:

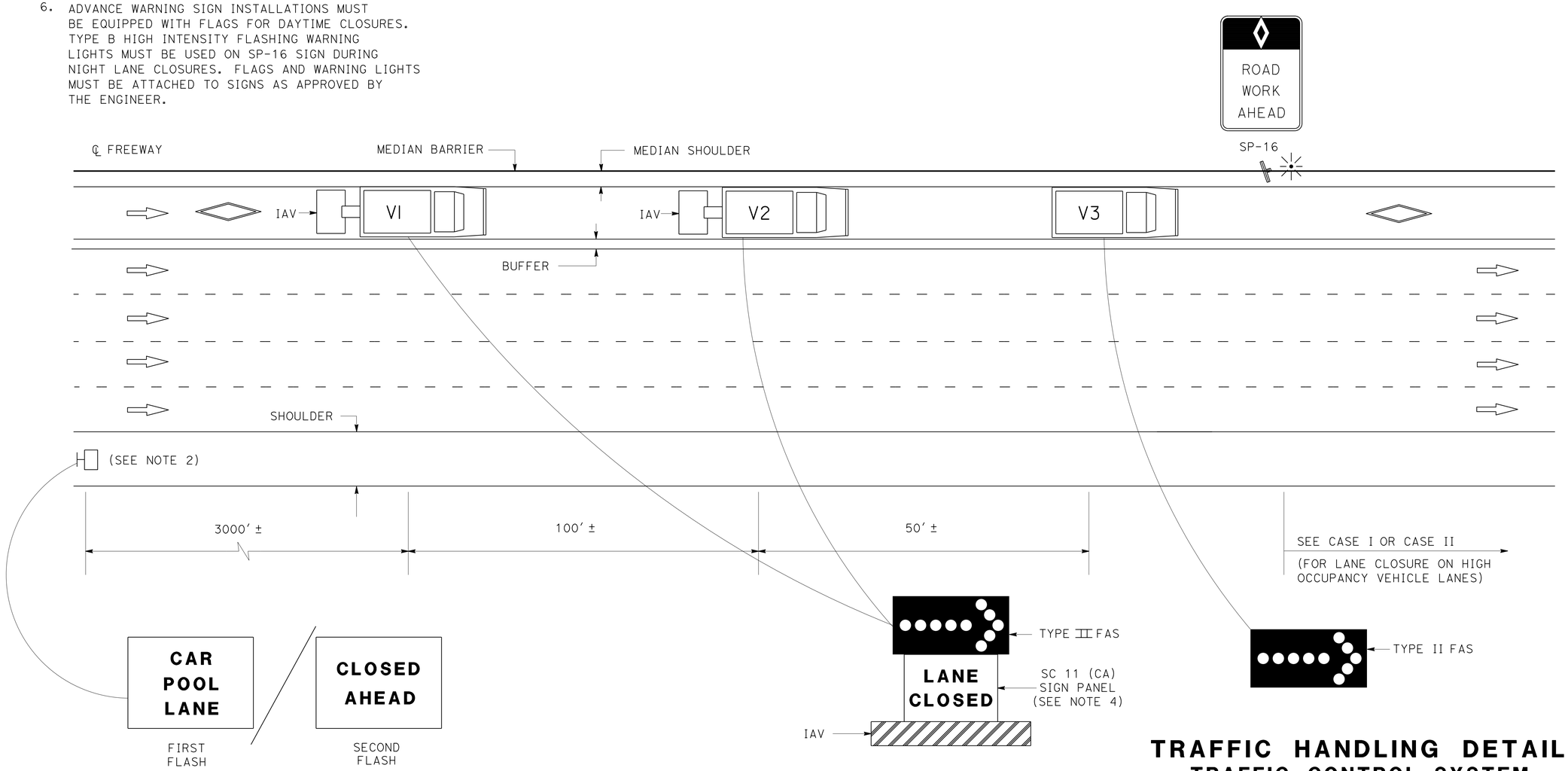
1. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS MUST BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE HOV LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500′ MUST BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.
5. PLACE PCMS ON THE MEDIAN SHOULDER WHERE SUFFICIENT ROOM (SUCH AS CHP ENFORCEMENT AREAS) EXISTS.
6. ADVANCE WARNING SIGN INSTALLATIONS MUST BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS MUST BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS MUST BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.

LEGEND

V1, V2	SHADOW VEHICLES
V3	WORK/APPLICATION VEHICLE
	PCMS
	PORTABLE FLASHING BEACON
	TEMPORARY TRAFFIC CONTROL SIGN
	FLASHING ARROW SIGN (FAS)

ABBREVIATIONS

IAV	IMPACT ATTENUATOR VEHICLE
(CA)	CALIFORNIA CODE
CHP	CALIFORNIA HIGHWAY PATROL



PCMS OR TRUCK MOUNTED CMS MESSAGE

(SEE NOTE 5)

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR HIGH OCCUPANCY VEHICLE LANES WITH MEDIAN SHOULDERS LESS THAN 8 FEET

NO SCALE

THD-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-22-16 | DATE PLOTTED => 10-FEB-2016 | TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	11	44

REGISTERED CIVIL ENGINEER 2-3-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp. 9/30/16 CIVIL STATE OF CALIFORNIA

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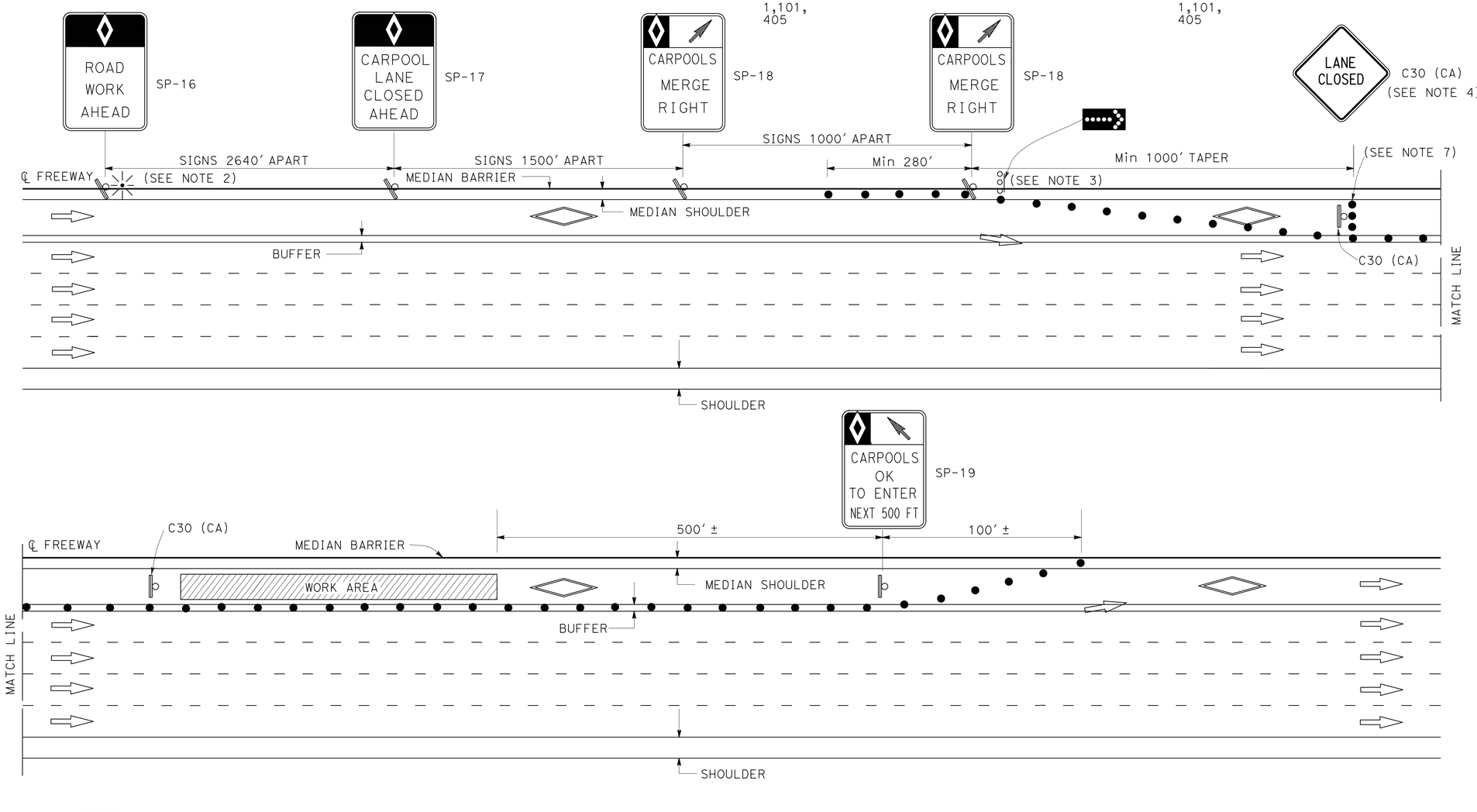

LEGEND

- ● TRAFFIC CONE
- PORTABLE FLASHING BEACON
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER

ABBREVIATIONS

(CA) CALIFORNIA CODE

SIGN PANEL

	SIZE (MIN)
SP-16	36" X 54"
SP-17	36" X 54"
SP-18	36" X 48"
SP-19	36" X 60"
C30 (CA)	30" X 30"
G20-2	48" X 24"

NOTES: FOR CASE I AND CASE II

1. AT LEAST ONE PERSON MUST BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON NIGHT LANE CLOSURES OR DAY-TIME CLOSURES EXCEEDING 1 MILE LENGTH, INCLUDING TAPERS.
2. ADVANCE WARNING SIGN INSTALLATIONS MUST BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS MUST BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS MUST BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.
3. THE FLASHING ARROW SIGN MUST BE TYPE I.
4. PLACE C30 (CA) SIGNS EVERY 2000' THROUGHOUT THE LENGTH OF LANE CLOSURE.
5. A MINIMUM 1500' OF SIGHT DISTANCE MUST BE PROVIDED WHERE POSSIBLE FOR VEHICLES APPROACHING THE FLASHING ARROW SIGN. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
6. PORTABLE DELINEATORS PLACED AT ONE-HALF THE SPACING INDICATED FOR TRAFFIC CONES MAY BE USED INSTEAD OF CONES FOR DAYTIME CLOSURES.
7. A MINIMUM OF 3 CONES MUST BE PLACED TRANSVERSELY ACROSS CLOSED LANES WHERE TAPERS END AND EVERY 2000'. TWO TYPE II BARRICADES MAY BE USED INSTEAD OF 3 CONES. THE ALIGNMENT OF CONES OR BARRICADES MAY BE SHIFTED FROM THE TRANSVERSE ALIGNMENT TO PROVIDE ACCESS TO WORK.
8. IF AN INGRESS/EGRESS AREA IS WITHIN 5250' UPSTREAM OR DOWNSTREAM OF THE WORK AREA, LANE CLOSURES MUST BE EXTENDED TO THAT AREA AS SHOWN IN CASE II.
9. SIGNS SP-16, 17, 18, AND 19 MAY BE OVERLAID ON EXISTING CARPOOL SIGNS IN MEDIANS AS APPROVED BY THE ENGINEER.
10. SIGNS SP-16, 17, 18, AND C30 (CA) MUST BE BLACK ON ORANGE BACKGROUND. SIGN SP-19 MUST BE BLACK ON WHITE BACKGROUND. DIAMONDS ON SIGNS MUST BE WHITE.
11. FOR CLOSURE OF LANE(S) ADJACENT TO HOV LANES, SEE CASE II.
12. THE MAXIMUM SPACING BETWEEN CONES MUST BE APPROXIMATELY 50' IN TAPERS AND 100' ON TANGENTS.

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR HIGH OCCUPANCY VEHICLE LANES AT NON-INGRESS/EGRESS AREAS
CASE I

NO SCALE

THD-7

CALCULATED-DESIGNED BY	JC
CHECKED BY	
REVISED BY	
DATE REVISED	2/14
FUNCTIONAL SUPERVISOR	SAM ESQUENAZI
ALBERT K YU	JOCELYN C CHIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® DTM

LAST REVISION 02-22-16 | DATE PLOTTED => 10-FEB-2016 | TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	12	44

REGISTERED CIVIL ENGINEER 2-3-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DYARI AHMED No. 66868 Exp. 9/30/16 CIVIL STATE OF CALIFORNIA

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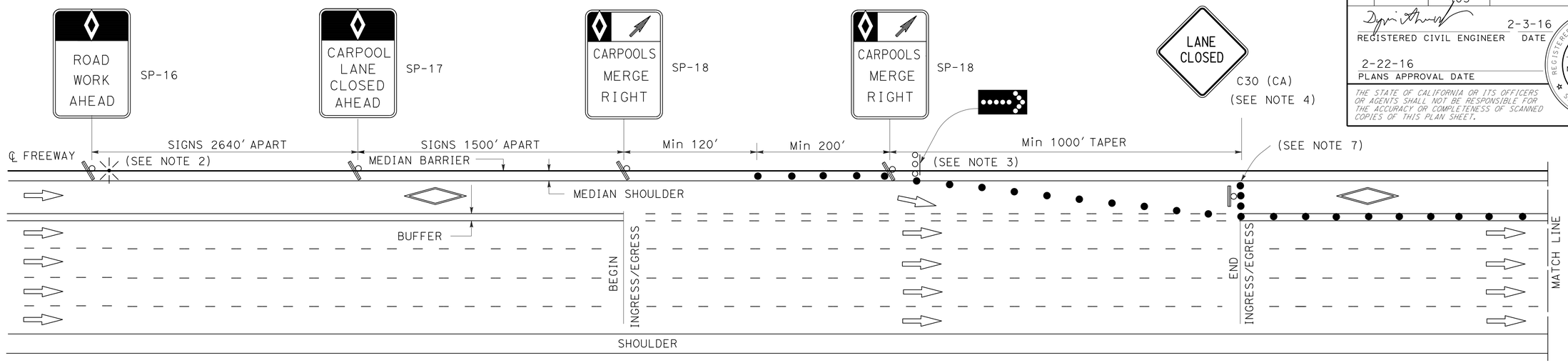

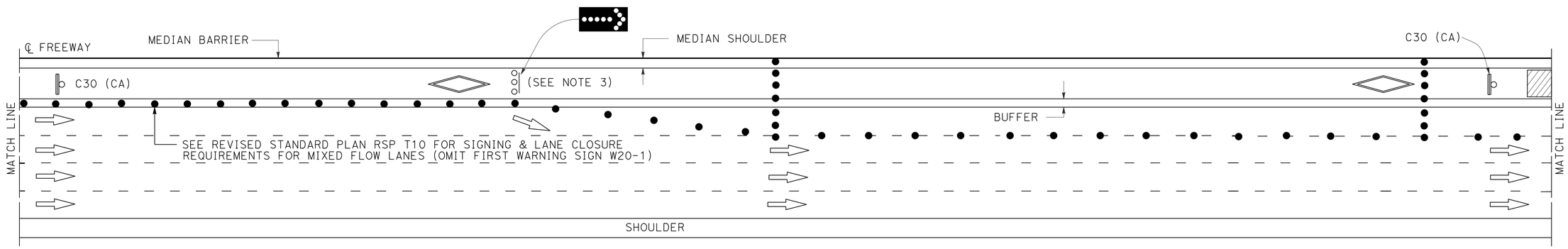

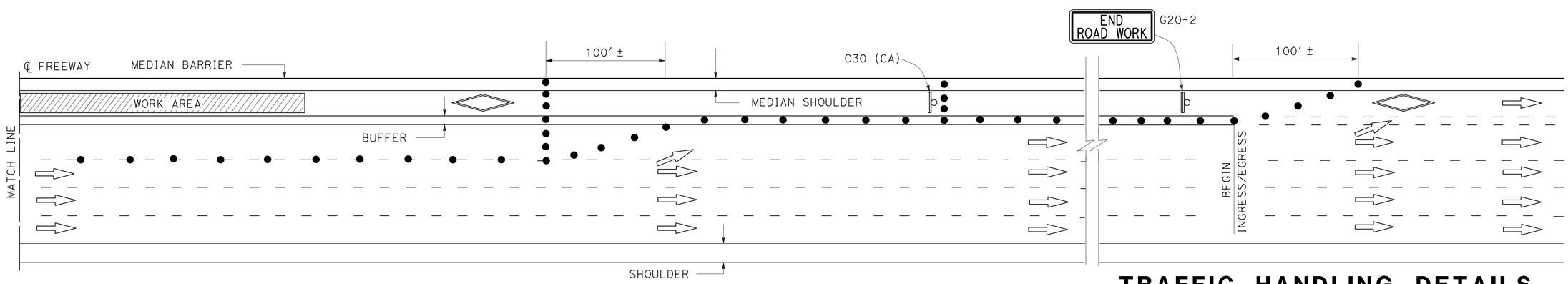

NOTES:

1. SEE CASE I FOR NOTES, LEGEND, SIGN PANEL, AND ABBREVIATIONS FOR THIS SHEET.
2. CLOSURES OF ONE MIXED FLOW TRAFFIC LANE ADJACENT TO HOV LANE SHOWN ON THIS SHEET. MULTIPLE MIXED FLOW LANE CLOSURES ARE SIMILAR.

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR HIGH OCCUPANCY VEHICLE LANES AND ADJACENT FREEWAY LANES BETWEEN INGRESS/EGRESS AREAS
CASE II

NO SCALE

THD-8

CALCULATED-DESIGNED BY	JC
CHECKED BY	2/14
REVISED BY	DATE REVISED
FUNCTIONAL SUPERVISOR	SAM ESQUENAZI
ALBERT K YU	JOCELYN C CHIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DTM

LAST REVISION 02-22-16 | DATE PLOTTED => 10-FEB-2016 | TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	13	44

Trung Phan 2-1-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRUNG PHAN No. 77878 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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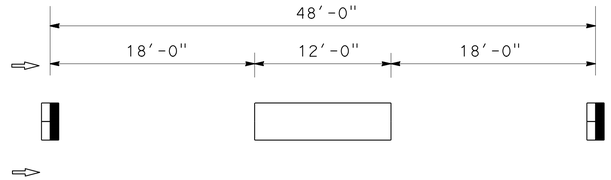
NOTE:

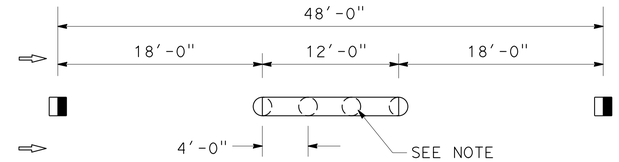
PLACE 4" THERMOPLASTIC TRAFFIC STRIPE ON TOP OF MARKERS.

LEGEND:

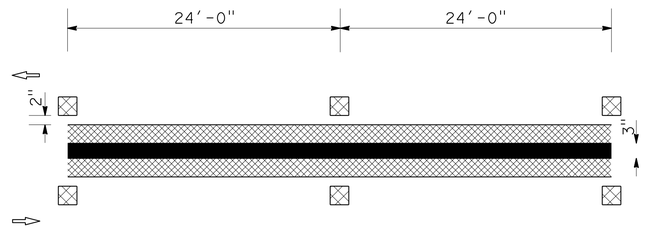
- TYPE A PAVEMENT MARKER
- TYPE AY PAVEMENT MARKER
- TYPE D PAVEMENT MARKER
- TYPE G PAVEMENT MARKER
- TYPE H PAVEMENT MARKER
- 4" WHITE THERMOPLASTIC TRAFFIC STRIPE
- 4" YELLOW THERMOPLASTIC TRAFFIC STRIPE
- 8" WHITE THERMOPLASTIC TRAFFIC STRIPE
- PAINT TRAFFIC STRIPE (2-COAT) 3" SOLID BLACK



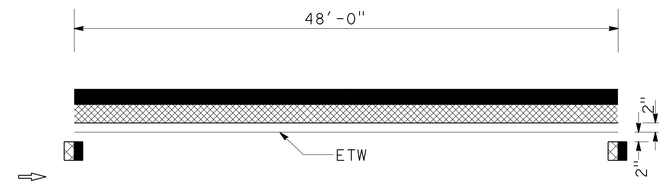
DETAIL 12 (MODIFIED)



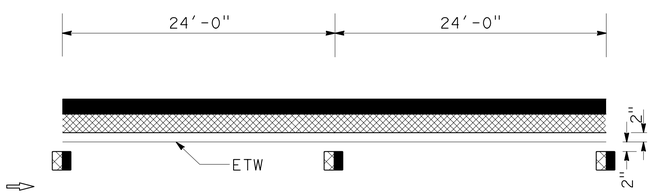
DETAIL 13 (MODIFIED)



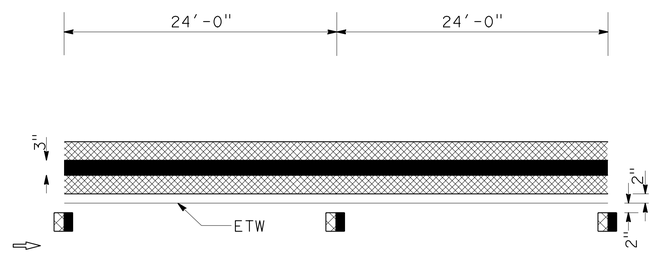
DETAIL 22 (MODIFIED)



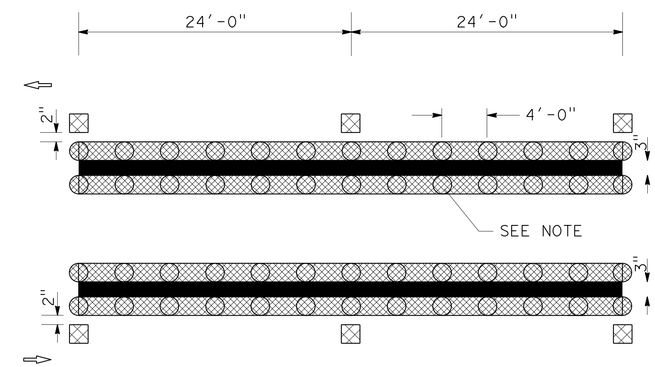
DETAIL 25 (MODIFIED)



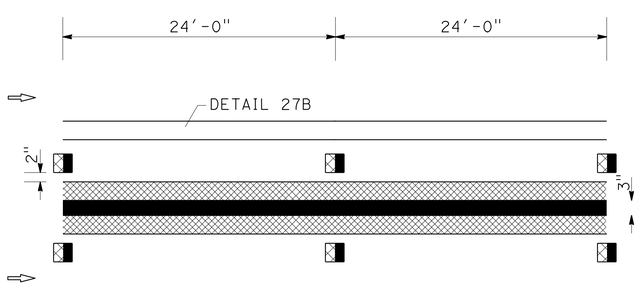
DETAIL 25A (MODIFIED-1)



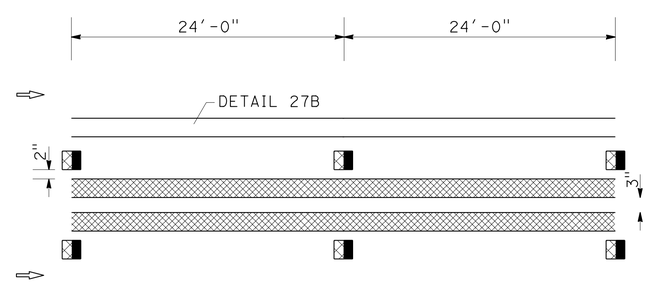
DETAIL 25A (MODIFIED-2)



DETAIL 29 (MODIFIED)



DETAIL HOV 1



DETAIL HOV 2

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

REVISED BY	DATE REVISED
TRUNG PHAN	AYUBUR RAHMAN
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	AYUBUR RAHMAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 02-22-16 | DATE PLOTTED => 10-FEB-2016 | TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	14	44

REGISTERED CIVIL ENGINEER Trung Phan 2-1-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRUNG PHAN No. 77878 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

LOCATION No. (X)	ROUTE	BRIDGE No.	BRIDGE NAME	PAINT TRAFFIC STRIPE (2-COAT) 3" SOLID BLACK	THERMOPLASTIC TRAFFIC STRIPE (LF) DETAIL 27B 4" WHITE	29 4" YELLOW	29 (Mod) 4" YELLOW	22 4" YELLOW	22 (Mod) 4" YELLOW	25 4" YELLOW	25 (Mod) 4" YELLOW	25A (Mod-1) 4" YELLOW	25A 4" YELLOW	21 4" YELLOW	25A (Mod-2) 4" YELLOW	HOV 1 4" YELLOW	HOV 2 4" YELLOW	12 4" WHITE (BROKEN 36 - 12)	13 (Mod) 4" WHITE (BROKEN 36 - 12)	9 4" WHITE (BROKEN 17 - 7)	12 (Mod) 8" WHITE (BROKEN 36 - 12)	37 8" WHITE (BROKEN 12 - 3)	38 8" WHITE	38B 8" WHITE	PAVEMENT MARKER (EA) TYPE A (NON - REFLECTIVE)	TYPE AY (NON - REFLECTIVE)	TYPE C (RETROREFLECTIVE)	TYPE D (RETROREFLECTIVE)	TYPE G (RETROREFLECTIVE)	TYPE H (RETROREFLECTIVE)	THERMOPLASTIC PAVEMENT MARKING (SQFT) WORDS, SYMBOLS, AND ARROWS DIAGONAL STRIPE/ LIMIT LINE	DIAMOND	CAR	ONLY	TYPE IV (L/R)
1	1	53-1592	FOURTH St OC			508		60												213								14	5		10				15
2	1	53-2818	MALIBU LAGOON	1,046	1,046		2,092											1,046								523		44	22		15				
3	101	53-1102L	SEPULVEDA Blvd UC		108					108									432			108			36		8		11	3					
4	101	53-1145L	N405-N101 CONNECTOR UC		109					109									327					109	28				16	3					
8	101	53-1680	PARKWAY CALABASAS OC																	259								11	6						
9	101	53-1681	MUREAU Rd OC	204					408																			17							
10	101	53-0755	CHESEBRO CREEK		162					162									486			81	162		41		6		19	4	16				
11	101	53-1726	REYES ADOBE OC		442			225												442			237					10	20						60
12	405	53-1253	CENTINELA Ave UC	1,068	2,850					1,068						2,136			3,738			2,004			312		134		112	112					
13	405	53-1254	SEPULVEDA Blvd UC	496	992								496			992			1,736			428		69	145		29		50	62					
14	405	53-0703	NATIONAL Blvd UC		368								184				368		552						46				12	23					
16	405	53-1638G	N405-E10 CONNECTOR OC		187								187	374																8	44				
17	405	53-1630G	N405-W10 CONNECTOR OC	1,290	1,323							1,290							1,308						109				28	54					
18	405	53-0704F	S405-E&W10 CONNECTOR OC	460	1,781								1,137		920				1,329			332	921		111		23		72	201	239				
19	405	53-0706	OLYMPIC Blvd UC		480								240				480		840			120		120	70		8		30	30			17	22	
20	405	53-0708	ROUTE 405/2 SEPARATION		228					228									912		228				76				29	5		11			
21	405	53-1097	OHIO Ave UC		138								138				276		568	71			142		48				20	18					
22	405	53-0710	WILSHIRE Blvd UC		552								276				276		1,104		138		138		92				35	23		11		22	
24	405	53-0740	SEPULVEDA Blvd UC		342								171				342		684						57				15	22					
25	405	53-0741G	N405-101 ON OC		146								130						133			137			12		10		6	28					
26	405	53-0741	VENTURA Blvd UC	226	356						113		113			113	113		678		113		260		57				30	17	21	11		22	
			SUBTOTAL	4,790	11,610	508	2,092	285	408	1,675	113	1,290	3,072	374	920	3,241	1,855	1,046	14,827	985	479	3,210	1,860	298	1,240	523	218	96	538	613	345	33	17	66	75
			TOTAL	4,790	27,443													15,873		985	479	3,210	2,158		1,763		1,465				536			

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: AYUBUR RAHMAN
CALCULATED-DESIGNED BY: TRUNG PHAN
CHECKED BY: AYUBUR RAHMAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 10-FEB-2016
TIME PLOTTED => 11:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	15	44

REGISTERED CIVIL ENGINEER Trung Phan DATE 2-1-16

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRUNG PHAN No. 77878 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

LOCATION No. (X)	ROUTE	BRIDGE No.	BRIDGE NAME	REMOVE					
				(LF)	(LF)	(LF)	(SQFT)	(SQFT)	(EA)
				PAINTED TRAFFIC STRIPE					
				3" BLACK	THERMOPLASTIC TRAFFIC STRIPE	YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	THERMOPLASTIC PAVEMENT MARKING	YELLOW THERMOPLASTIC PAVEMENT MARKING (HAZARDOUS WASTE)	PAVEMENT MARKER
1	1	53-1592	FOURTH St OC		63	568	25		19
2	1	53-2818	MALIBU LAGOON	1,046	1,308	2,092	15		589
3	101	53-1102L	SEPULVEDA Blvd UC		238	108			58
4	101	53-1145L	N405-N101 CONNECTOR UC		300	109			47
8	101	53-1680	PARKWAY CALABASAS OC		76				17
9	101	53-1681	MUREAU Rd OC	204		408			17
10	101	53-0755	CHESEBRO CREEK		462	162	16		70
11	101	53-1726	REYES ADOBE OC		808	225	60		30
12	405	53-1253	CENTINELA Ave UC	1,068	4,186	3,204			670
13	405	53-1254	SEPULVEDA Blvd UC	496	1,581	1,488			286
14	405	53-0703	NATIONAL Blvd UC		506	552			81
16	405	53-1638G	N405-E10 CONNECTOR OC		187	561		44	8
17	405	53-1630G	N405-W10 CONNECTOR OC	1,290	1,650	1,290			191
18	405	53-0704F	S405-E&W10 CONNECTOR OC	460	3,101	2,057	239		407
19	405	53-0706	OLYMPIC Blvd UC		834	720	39		138
20	405	53-0708	ROUTE 405/2 SEPARATION		513	228	11		110
21	405	53-1097	OHIO Ave UC		443	414			86
22	405	53-0710	WILSHIRE Blvd UC		1,001	552	33		150
24	405	53-0740	SEPULVEDA Blvd UC		513	513			94
25	405	53-0741G	N405-101 ON OC		207	130			56
26	405	53-0741	VENTURA Blvd UC	226	814	452	54		104
			SUBTOTAL	4,790	18,791	15,833	492	44	3,228
			TOTAL	4,790	18,791	15,833	492	44	3,228

PAVEMENT DELINEATION QUANTITIES

PDQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: AYUBUR RAHMAN
CALCULATED-DESIGNED BY: TRUNG PHAN
CHECKED BY: AYUBUR RAHMAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 10-FEB-2016
TIME PLOTTED => 11:07

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
Mtl	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

Oblr	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 Mtl	PERMEABLE MATERIAL

P continued

PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
Pkwy	PARKWAY
ℙ,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
Tel	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
Tot	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

T continued

TS	TRANSVERSE,
	TRAFFIC SIGNAL,
	TUBULAR STEEL
Typ	TYPICAL

U

UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS

V

V	VALVE,
	DESIGN SPEED
Var	VARIABLE,
	VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME

W

W	WEST,
	WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
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
07	LA	1, 101, 405	Var	16	44

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 2-22-16

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ABBREVIATIONS (SHEET 2 OF 2)

NO SCALE

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

REVISED STANDARD PLAN RSP A10B

2010 REVISED STANDARD PLAN RSP A10B

6-7-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	17	44

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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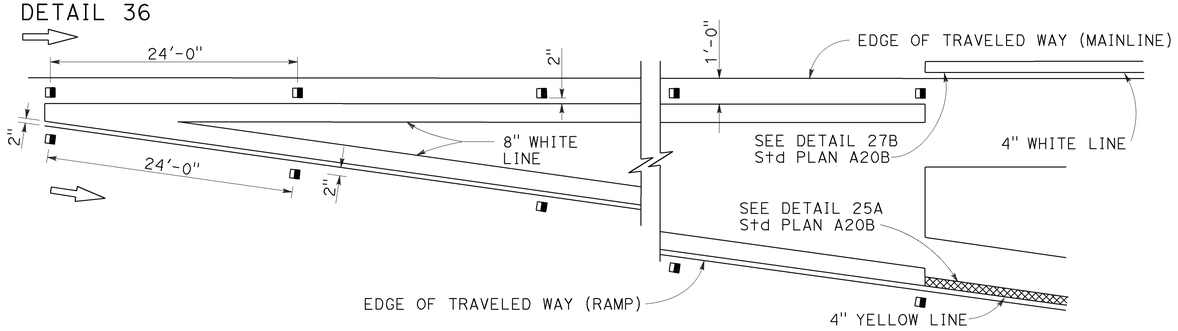
TO ACCOMPANY PLANS DATED 2-22-16

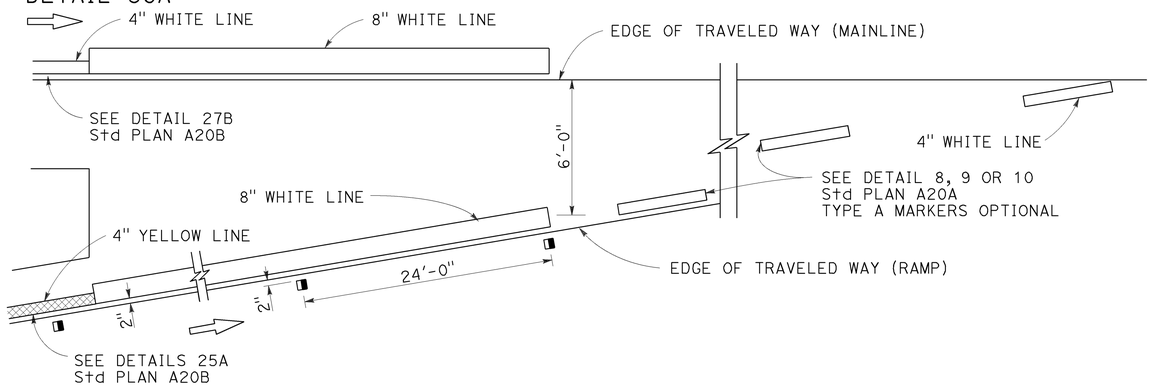
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



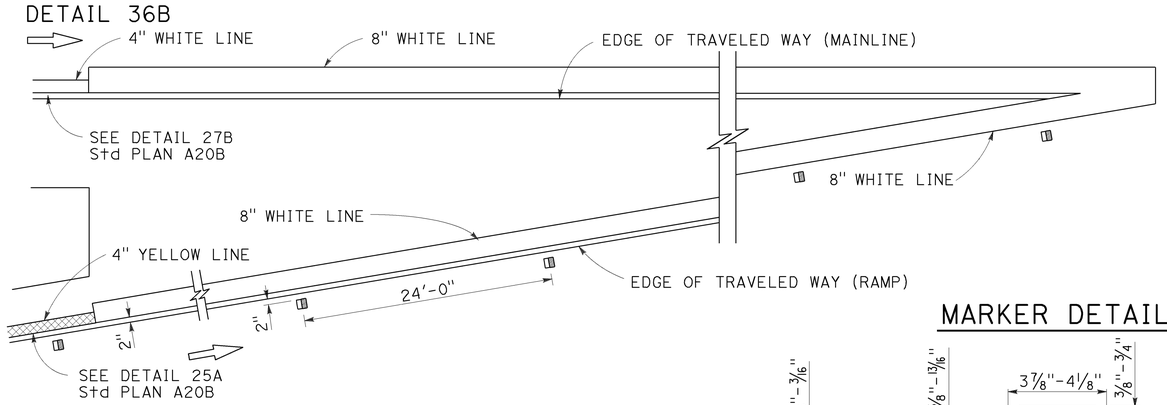
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A

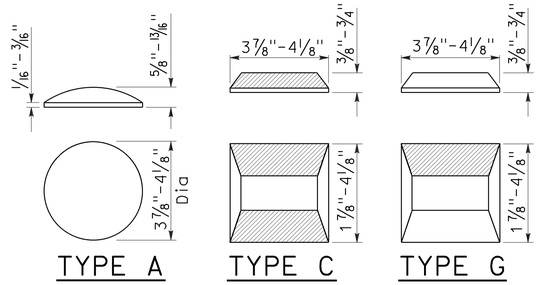


ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B



MARKER DETAILS



RETROREFLECTIVE FACE

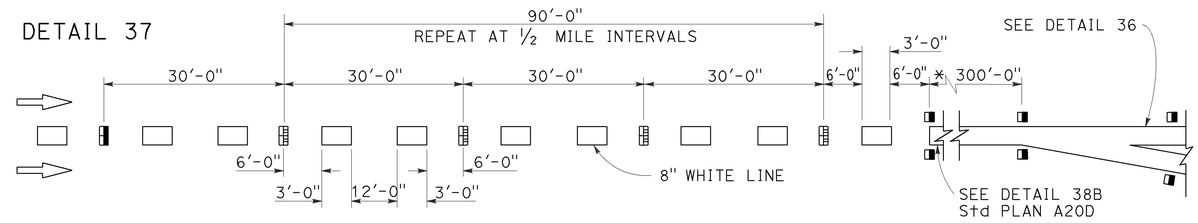
LEGEND:

MARKERS

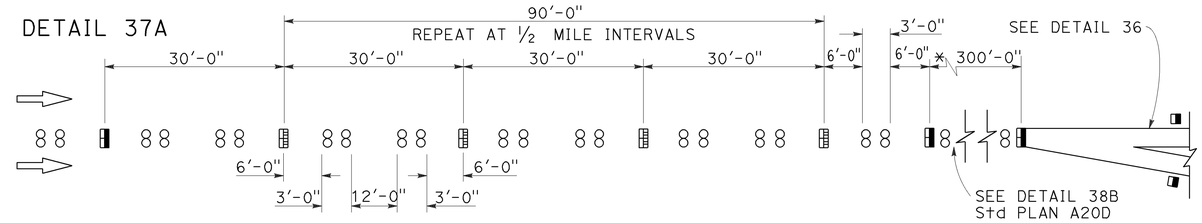
- TYPE A WHITE NON-REFLECTIVE
- TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE

LANE DROP AT EXIT RAMPS

DETAIL 37



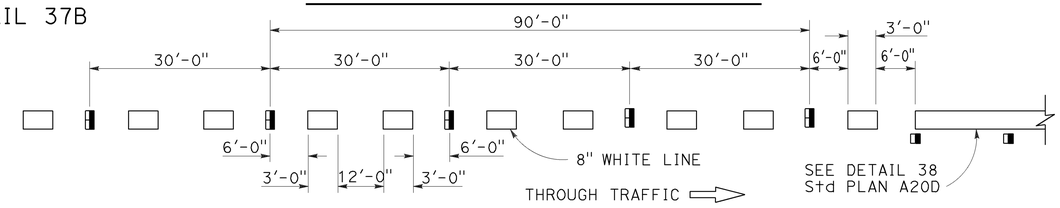
DETAIL 37A



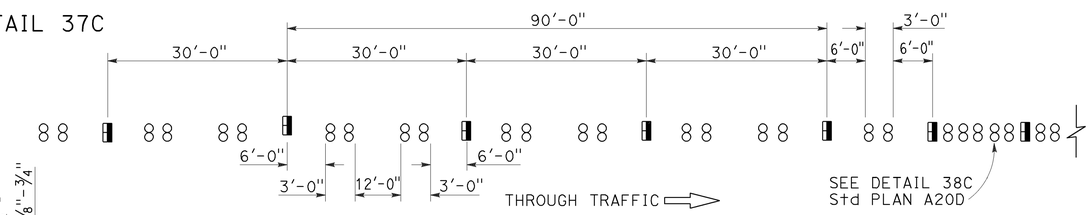
* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS

DETAIL 37B



DETAIL 37C



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

4-29-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	18	44

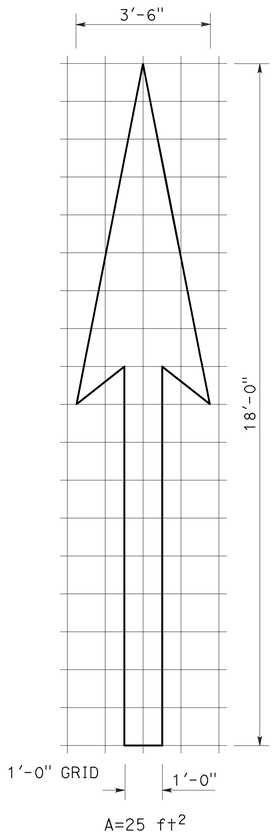
REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

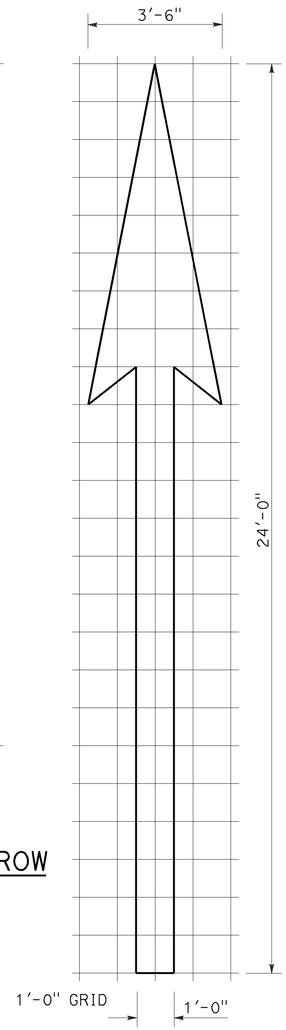
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-22-16



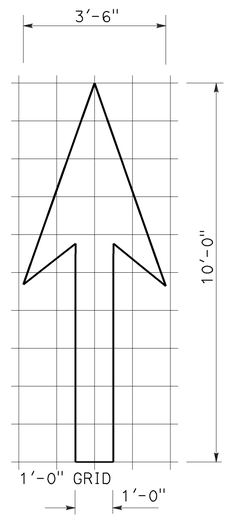
A=25 ft^2

TYPE I 18'-0" ARROW



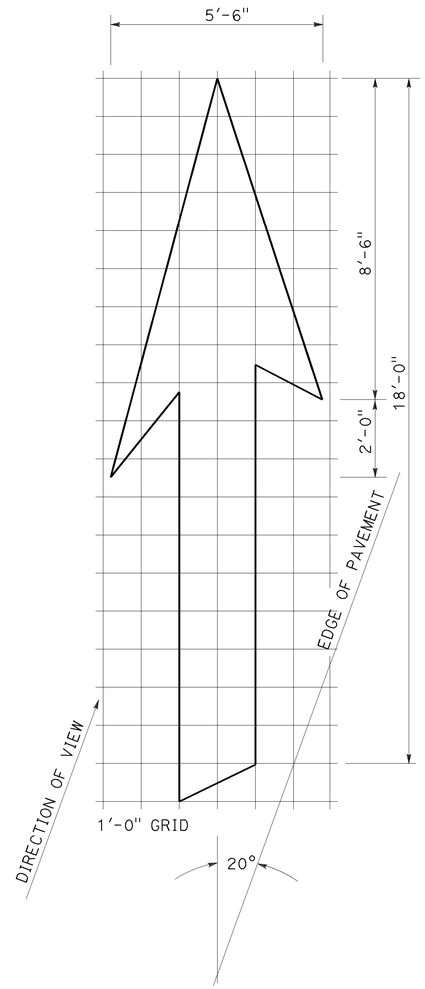
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

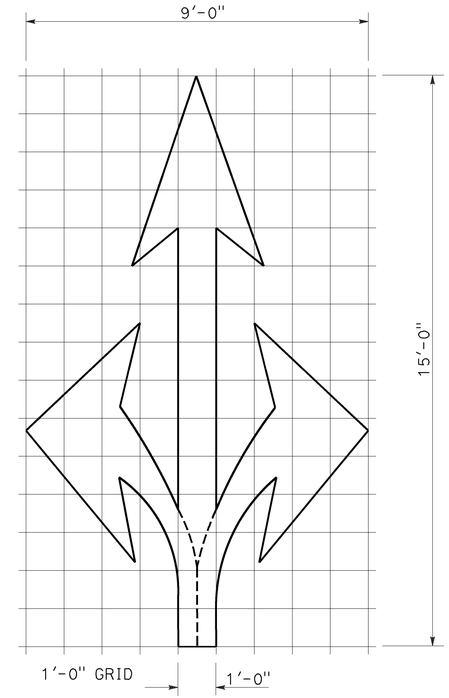
TYPE I 10'-0" ARROW



A=42 ft^2

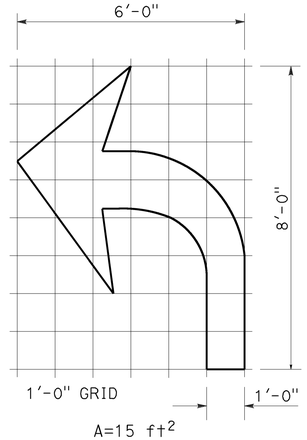
TYPE VI ARROW

Right lane drop arrow
(For left lane,
use mirror image)



A=36 ft^2

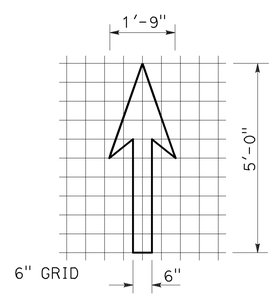
TYPE VIII ARROW



A=15 ft^2

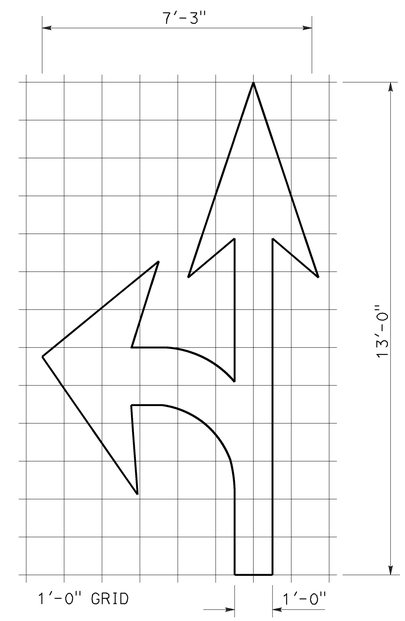
TYPE IV (L) ARROW

(For Type IV (R) arrow,
use mirror image)



A=3.5 ft^2

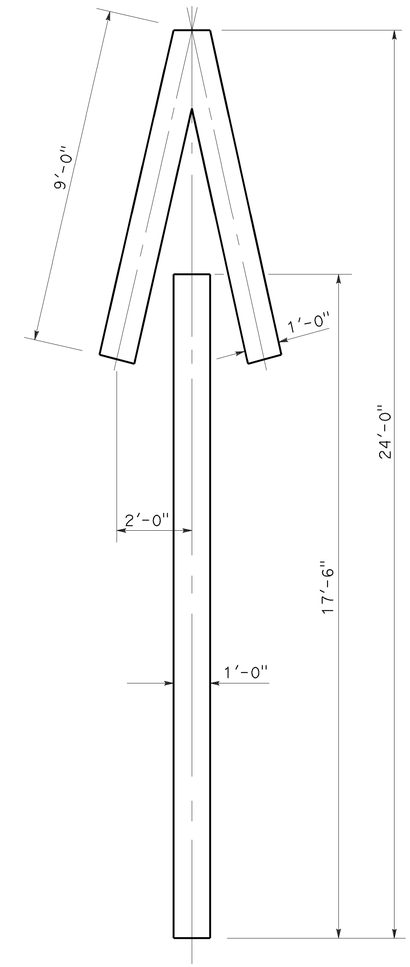
BIKE LANE ARROW



A=27 ft^2

TYPE VII (L) ARROW

(For Type VII (R) arrow,
use mirror image)



A=33 ft^2

TYPE V ARROW

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

NO SCALE

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

REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	19	44

REGISTERED CIVIL ENGINEER

October 19, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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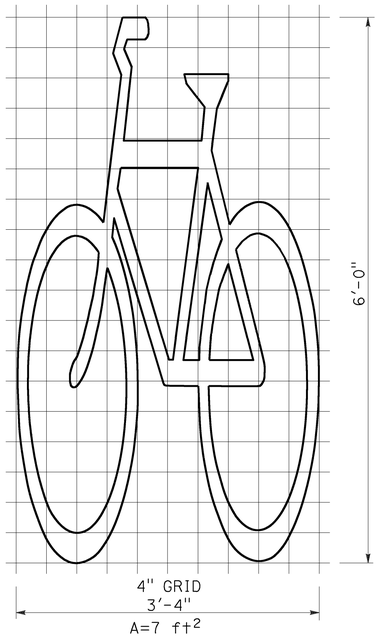
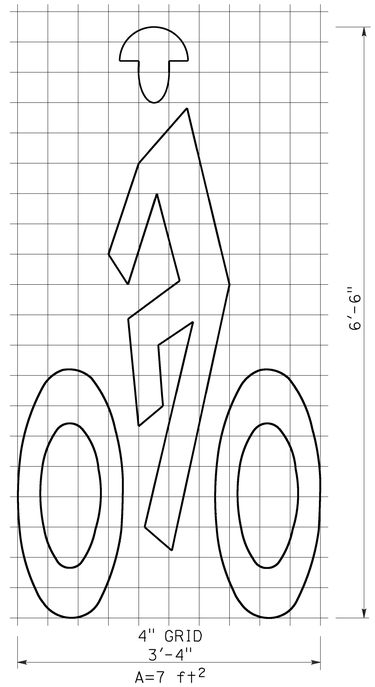
NOTE: TO ACCOMPANY PLANS DATED 2-22-16

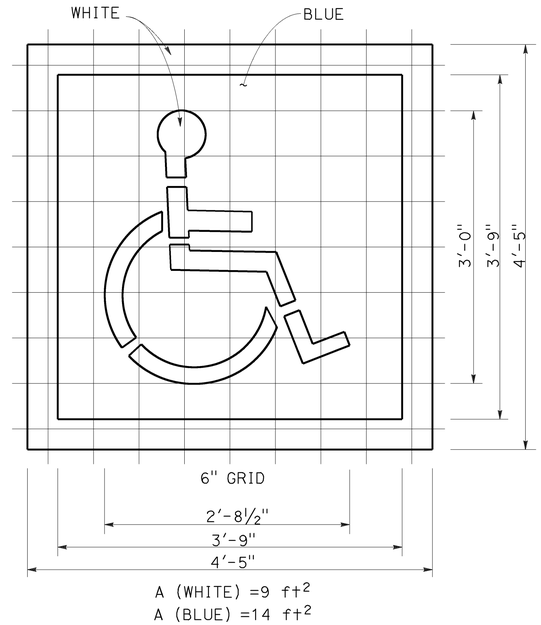
Minor variations in dimensions may be accepted by the Engineer.



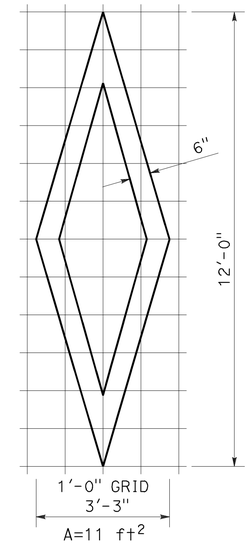
BIKE LANE SYMBOL WITHOUT PERSON



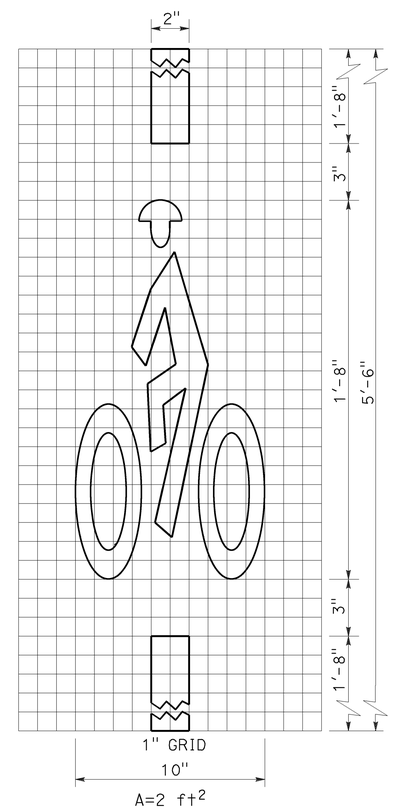
BIKE LANE SYMBOL WITH PERSON



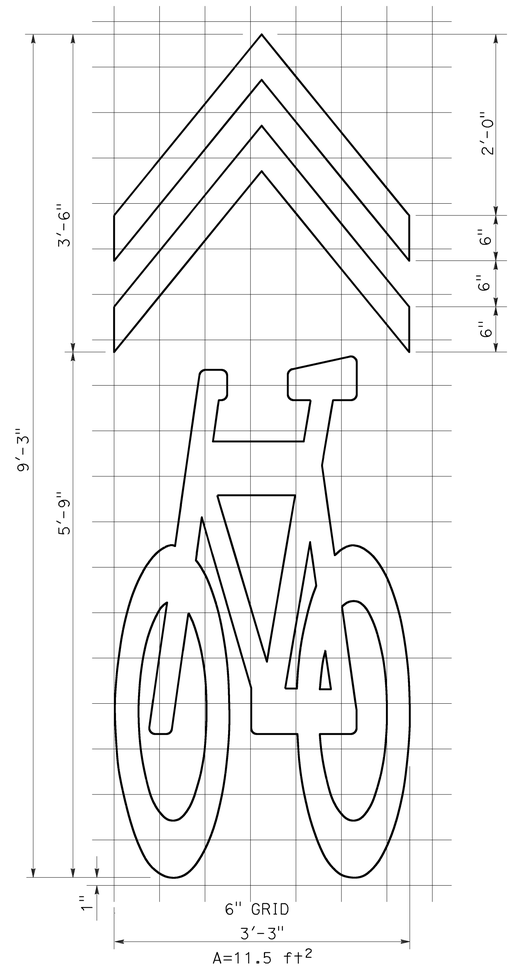
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



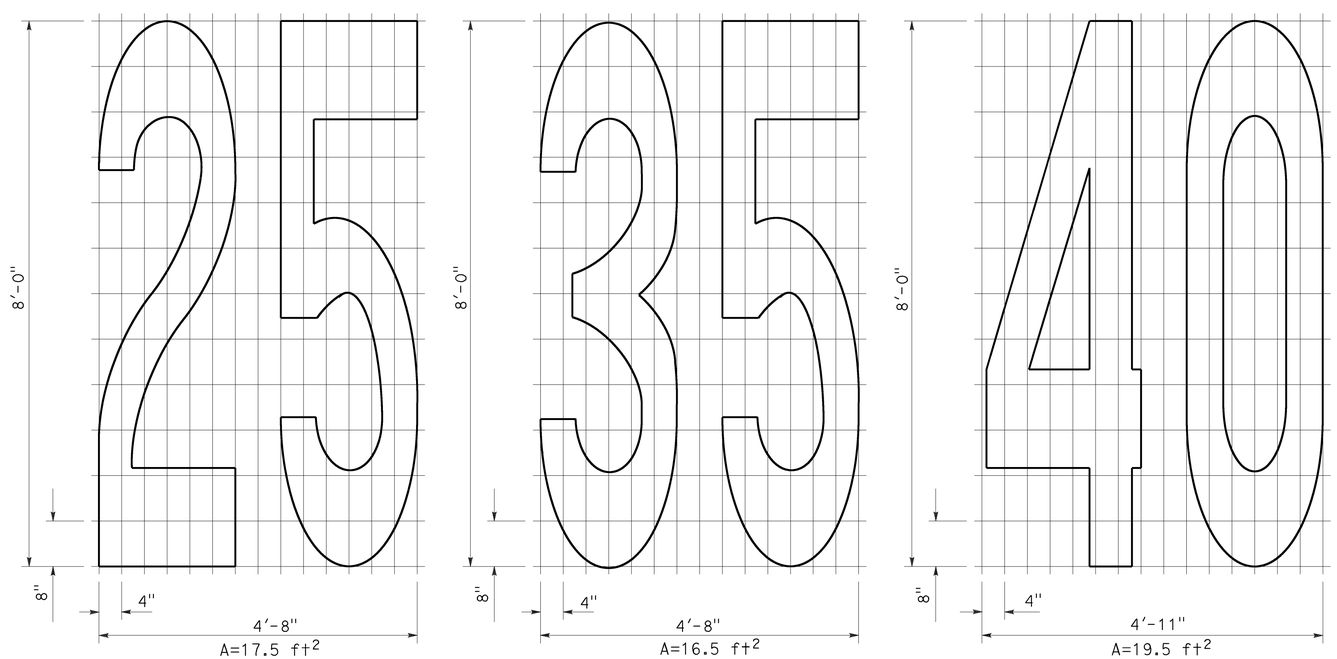
DIAMOND SYMBOL



BICYCLE LOOP DETECTOR SYMBOL



SHARED ROADWAY BICYCLE MARKING



NUMERALS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS SYMBOLS AND NUMERALS

NO SCALE

RSP A24C DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A24C DATED MAY 20, 2011 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24C

2010 REVISED STANDARD PLAN RSP A24C

6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	20	44

REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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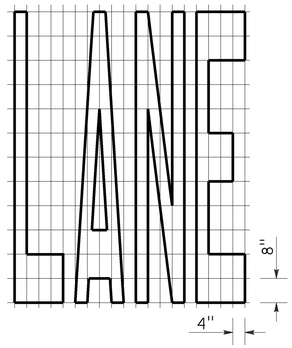
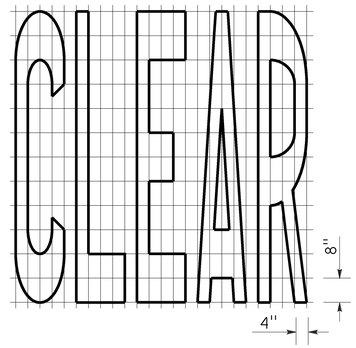
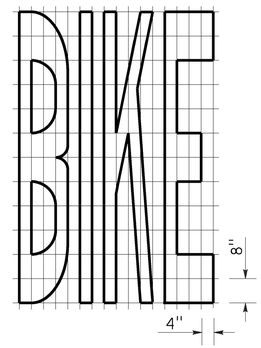
TO ACCOMPANY PLANS DATED 2-22-16



A=24 ft^2



A=27 ft^2



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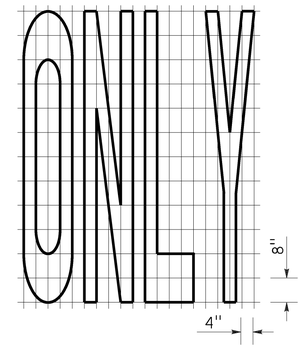

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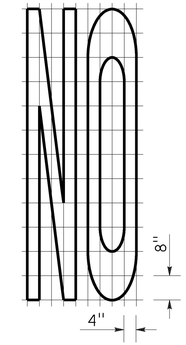

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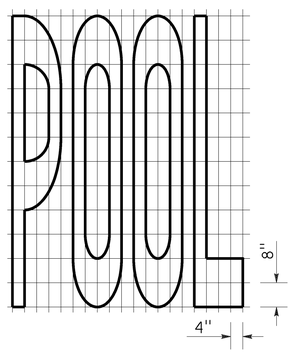

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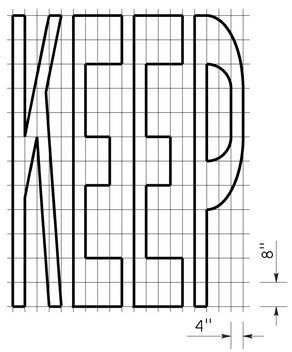

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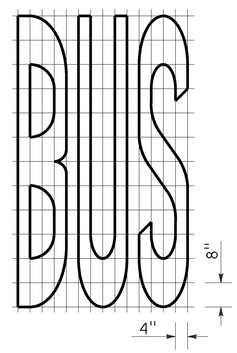

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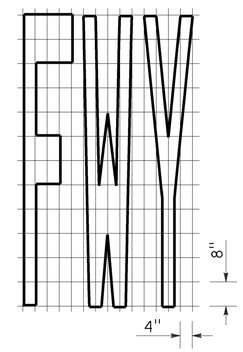

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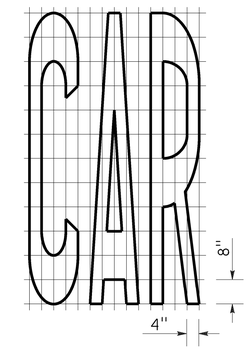
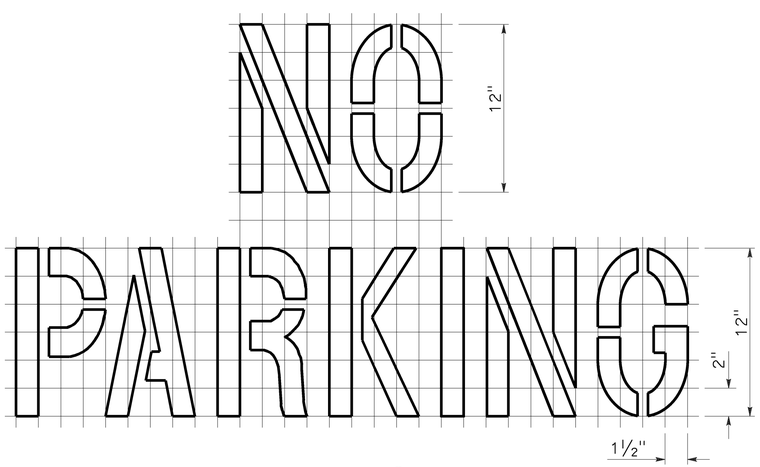
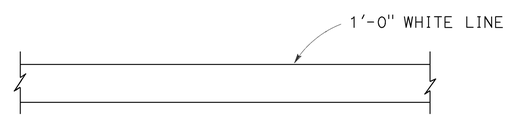


A=17 ft^2

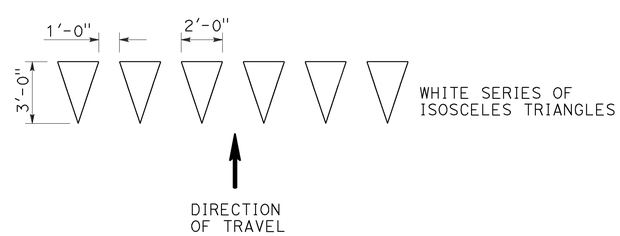
WORD MARKINGS			
ITEM	ft^2	ITEM	ft^2
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft^2
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS WORDS, LIMIT AND YIELD LINES

NO SCALE

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

REVISED STANDARD PLAN RSP A24E

2010 REVISED STANDARD PLAN RSP A24E

6-12-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	21	44

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 2-22-16

2010 REVISED STANDARD PLAN RSP T9

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		
					X	Y	Z **
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	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%
mph	ft	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 recommmended 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

4-30-13

TO ACCOMPANY PLANS DATED 2-22-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	22	44

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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

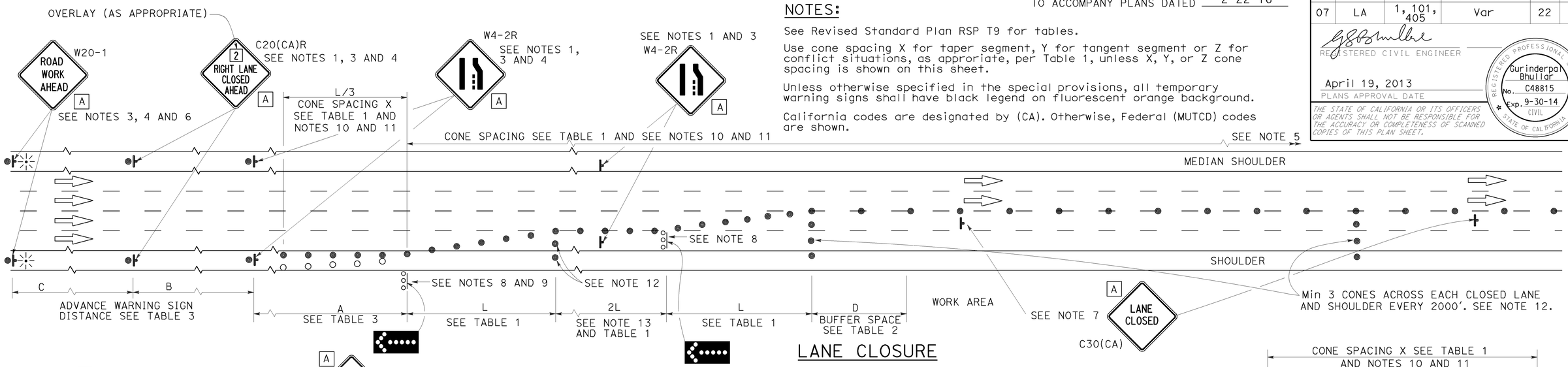
NOTES:

See Revised Standard Plan RSP T9 for tables.

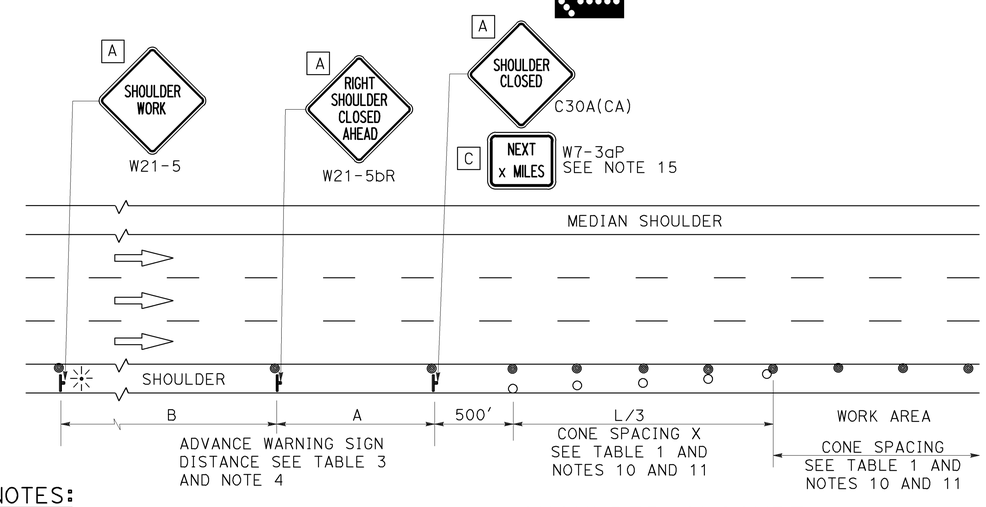
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

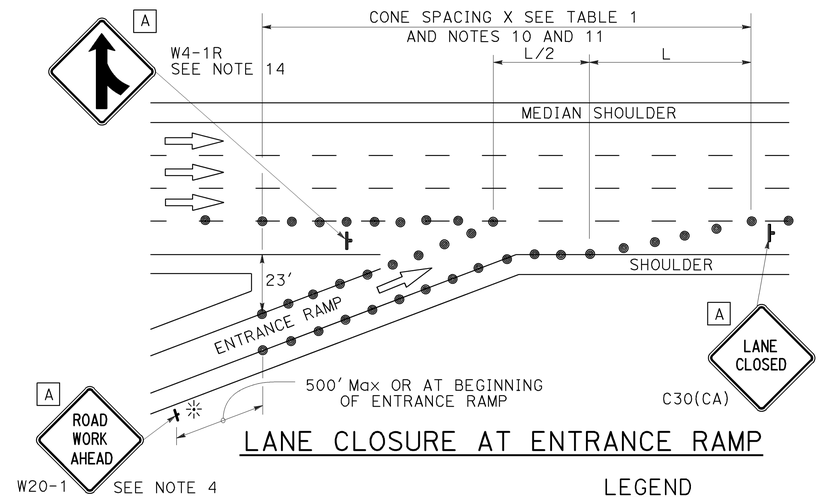
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



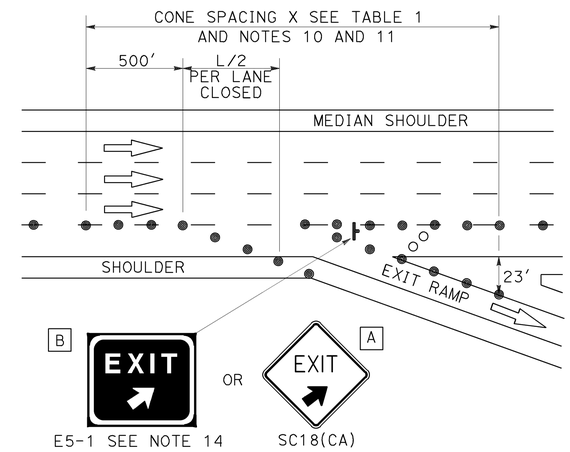
LANE CLOSURE



SHOULDER CLOSURE



LANE CLOSURE AT ENTRANCE RAMP



LANE CLOSURE AT EXIT RAMP

NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
   a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
   b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT____ MILES" plaque must be used if theshoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

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

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

12-18-12

TO ACCOMPANY PLANS DATED 2-22-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	23	44

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

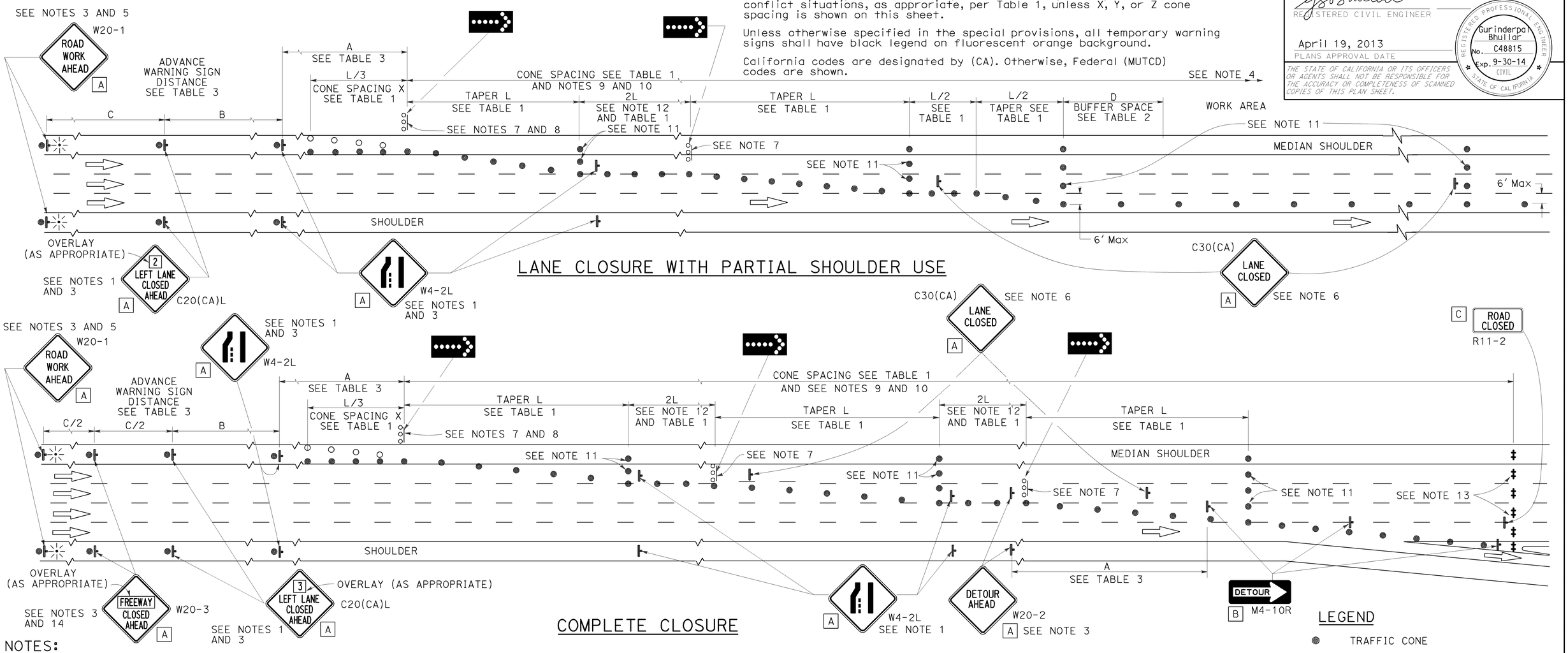
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES: See Revised Standard Plan RSP T9 for tables.

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

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

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



LANE CLOSURE WITH PARTIAL SHOULDER USE

COMPLETE CLOSURE

NOTES:

1. 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.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. 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.
4. 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.
5. 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.
6. Place a C30(CA) sign every 2000' throughout length of lane closure.
7. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
8. 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.
9. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
10. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
11. 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.
12. 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.
13. 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.
14. 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

12-18-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	24	44

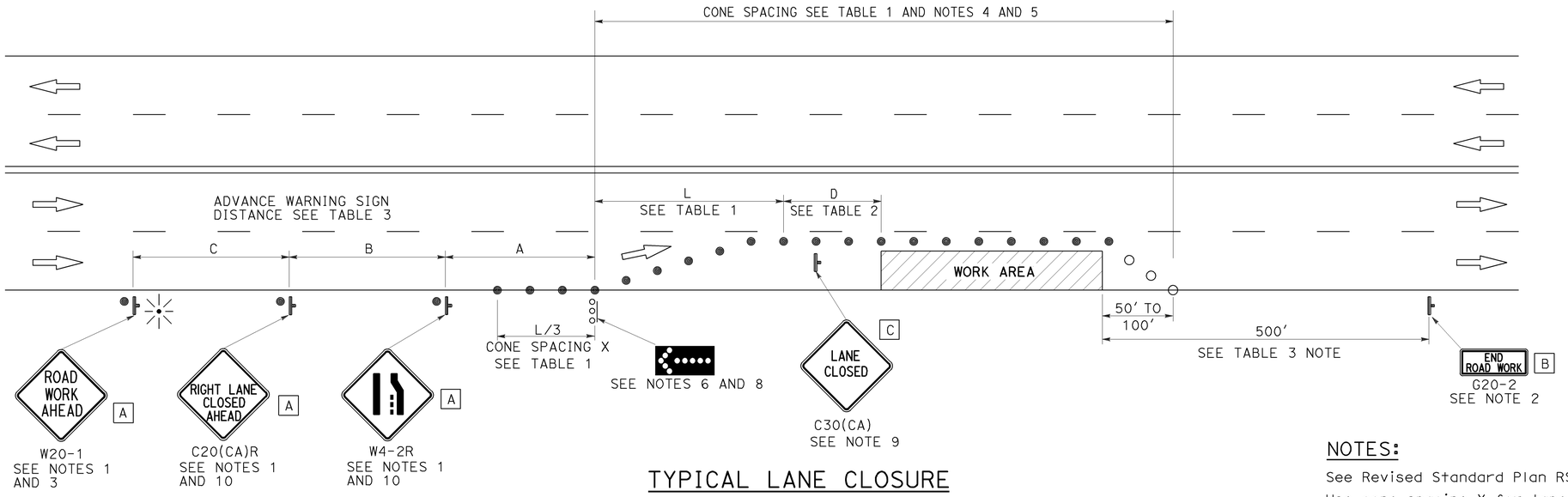
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 2-22-16



TYPICAL LANE CLOSURE

NOTES:

See Revised Standard Plan RSP T9 for tables.

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

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

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

NOTES:

1. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
3. 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.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Flashing arrow sign shall be either Type I or Type II.
7. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
8. 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.
9. Place a C30(CA) sign every 2000' throughout length of lane closure.
10. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
11. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

LEGEND

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

SIGN PANEL SIZE (Min)

A	48" x 48"
B	36" x 18"
C	30" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	25	44

REGISTERED CIVIL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Devinder Singh No. C50470 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 2-22-16

NOTES:

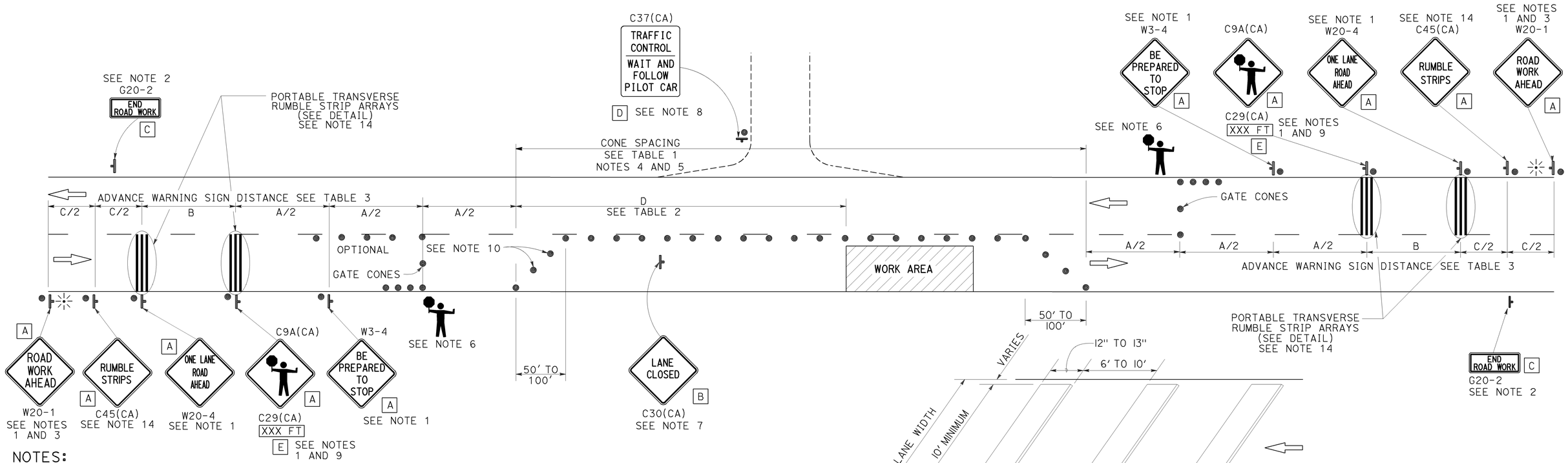
See Revised Standard Plan RSP T9 for tables.

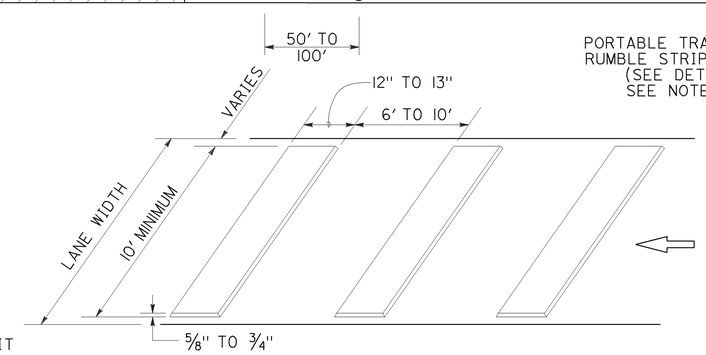
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL





PORTABLE TRANSVERSE RUMBLE STRIP ARRAY DETAIL

NOTES:

1. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
7. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
8. When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
9. An optional C29(CA) sign may be placed below the C9A(CA) sign.
10. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
11. The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
12. Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
13. If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
14. Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
    A. Work duration occupies a location for four hours or less
    B. Posted speed limit is below 45 MPH
    C. Work is of emergency nature
    D. Work zone is in snow or icy weather conditions

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- PORTABLE FLASHING BEACON
- FLAGGER

SIGN PANEL SIZE (Min)

A	48" x 48"
B	30" x 30"
C	36" x 18"
D	36" x 42"
E	20" x 7"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED OCTOBER 30, 2015 SUPERSEDES RSP T13 DATED OCTOBER 17, 2014, RSP T13 DATED JULY 18, 2014 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

10-13-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	26	44

REGISTERED CIVIL ENGINEER

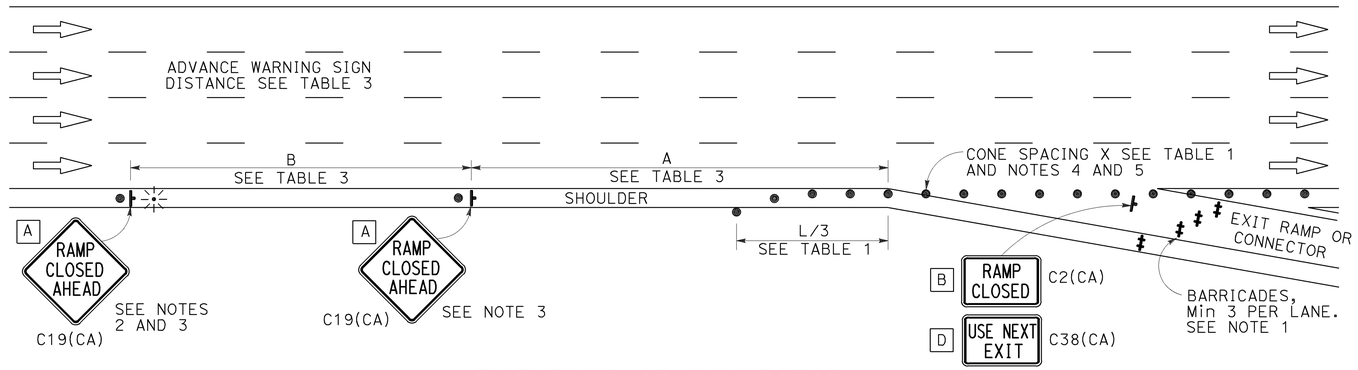
April 19, 2013
PLANS APPROVAL DATE

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

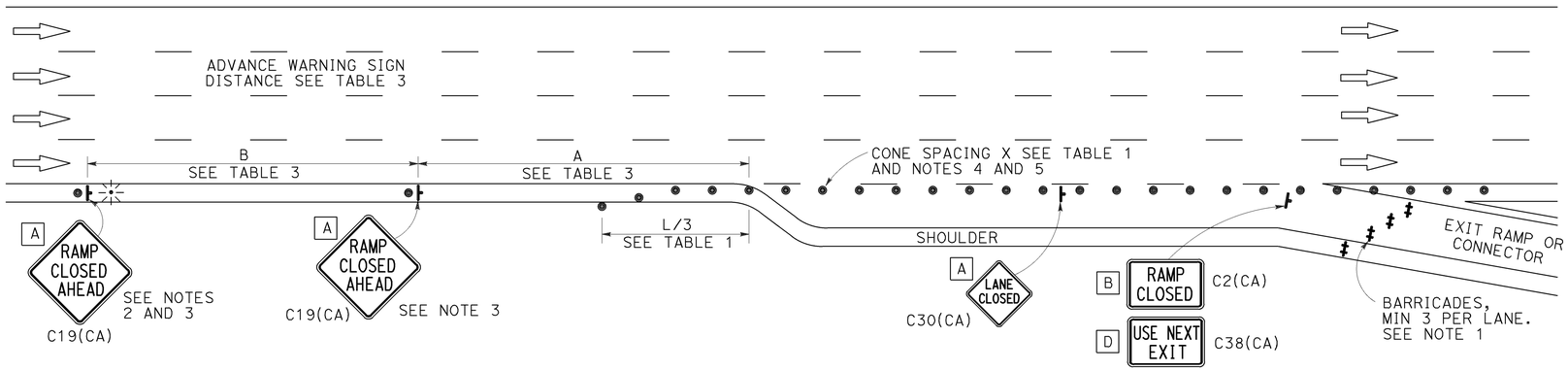
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-22-16

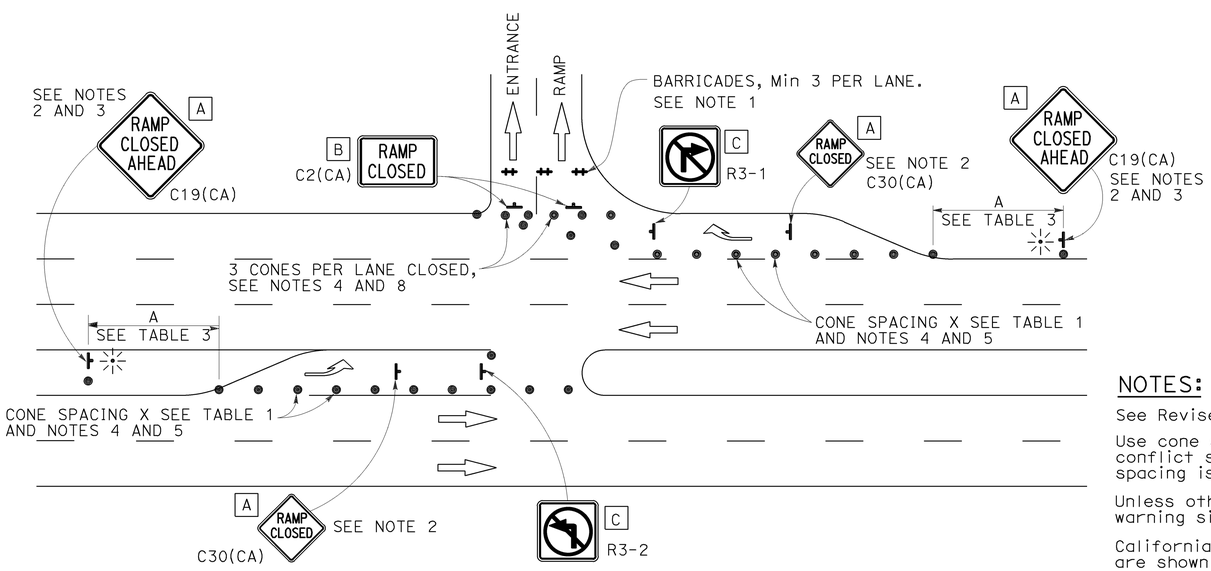
TYPICAL RAMP CLOSURES



EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS

SIGN PANEL SIZE (Min)

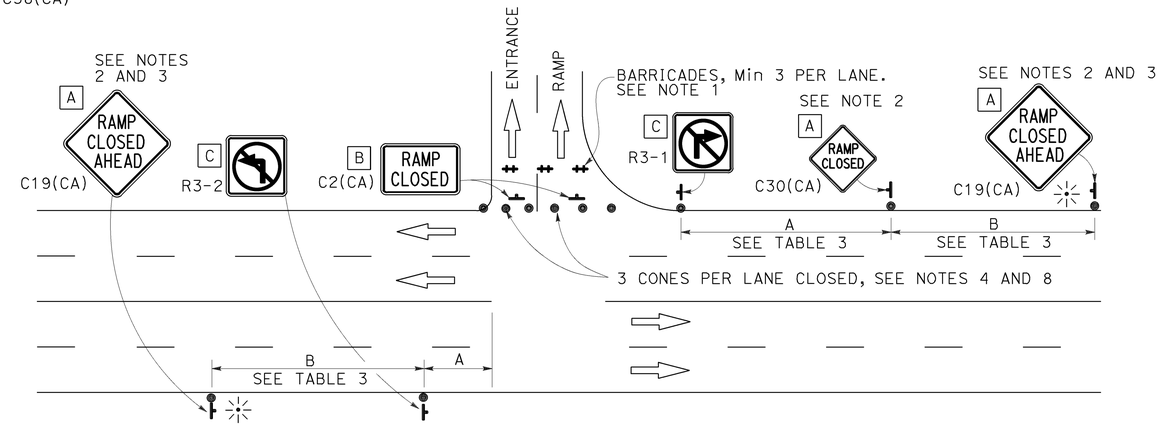
- A 48" × 48"
- B 48" × 30"
- C 36" × 36"
- D 48" × 36"

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- BARRICADES
- PORTABLE FLASHING BEACON

NOTES:

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



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 approriate, 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

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	27	44

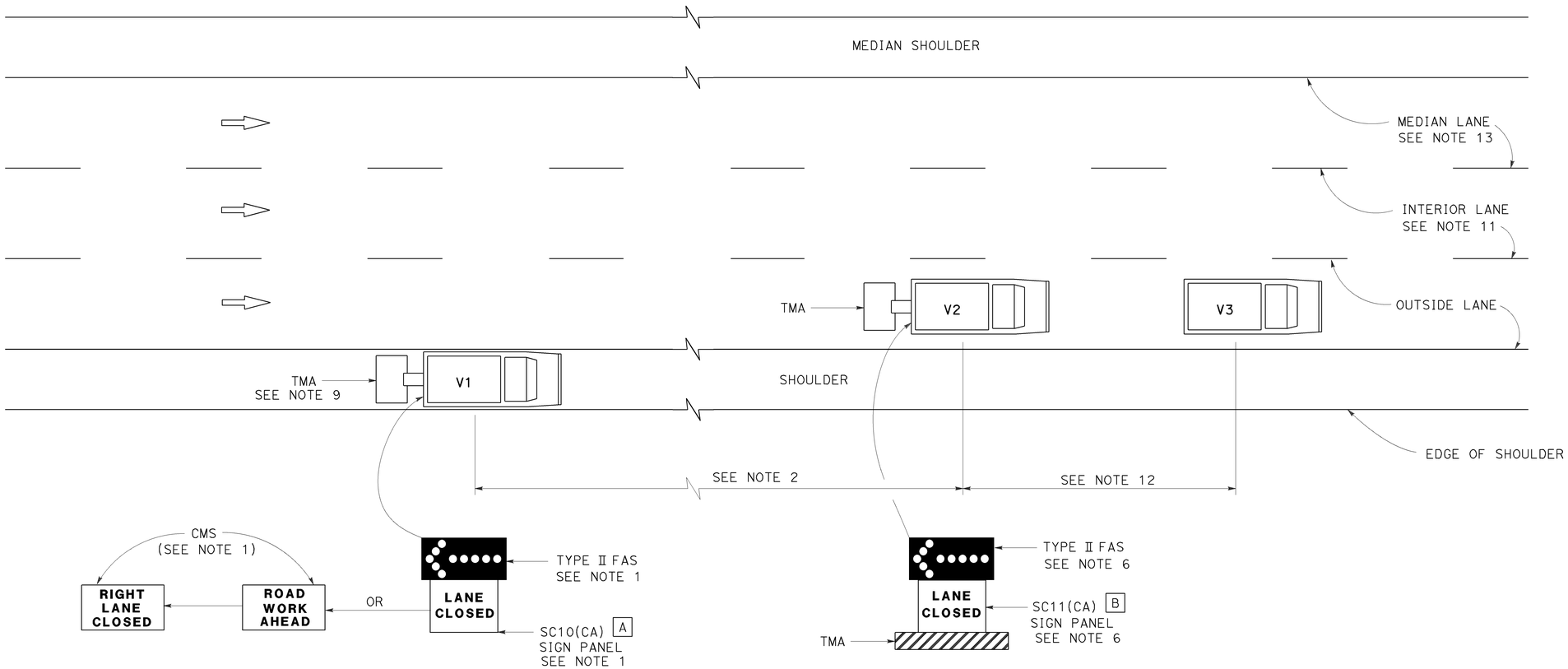
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 2-22-16



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

SIGN PANEL SIZE (Min)

A 66" x 36"

B 54" x 42"

LEGEND

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T15

2010 REVISED STANDARD PLAN RSP T15

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	28	44

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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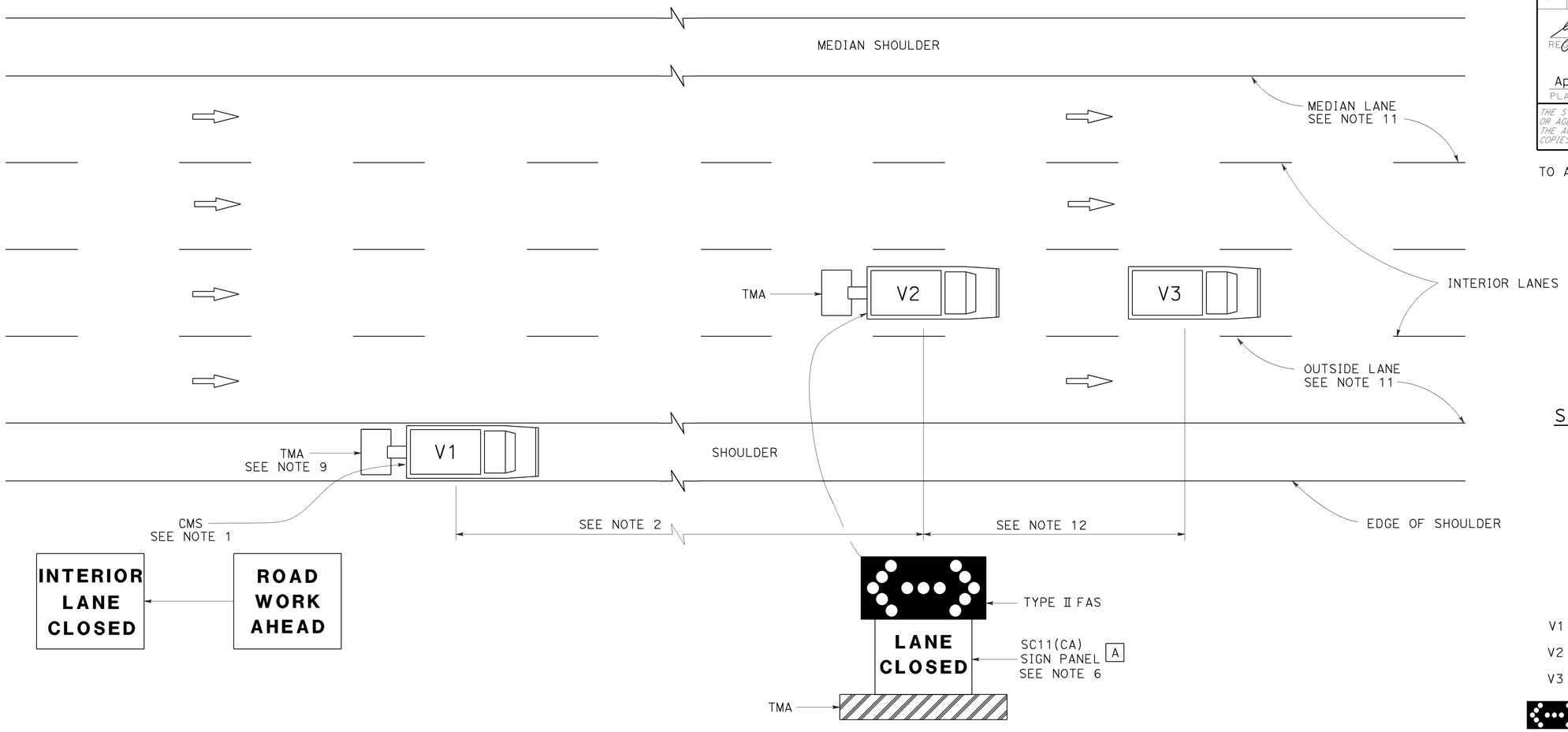
TO ACCOMPANY PLANS DATED 2-22-16



SIGN PANEL SIZE (Min)

A 54" x 42"

LEGEND

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

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

NOTES:

1. A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500′ should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500′.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11 etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on median lane or outside lane of multilane highways, use Revised Standard Plan T15.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T16

2010 REVISED STANDARD PLAN RSP T16

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	29	44

REGISTERED CIVIL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Efthymios Delis No. C51434 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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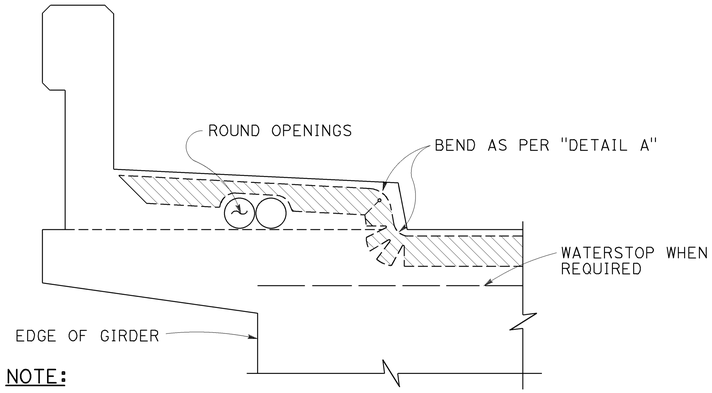
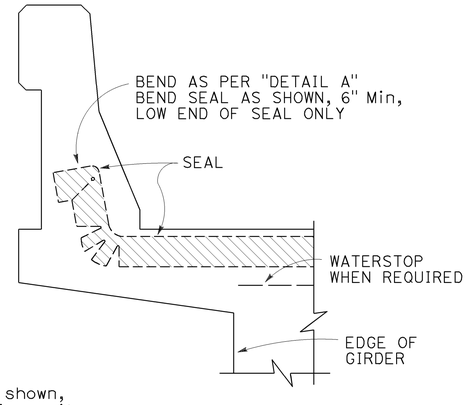
TO ACCOMPANY PLANS DATED 2-22-16



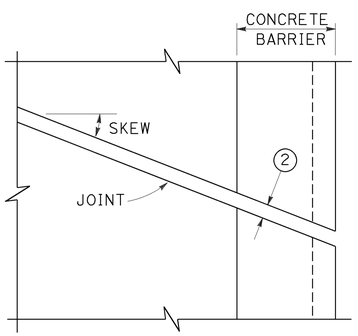
NOTE:
Type "B" seal shown. Type "A" seals to comform to the general path of seal shown, cuts for bending not required. Bend type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK

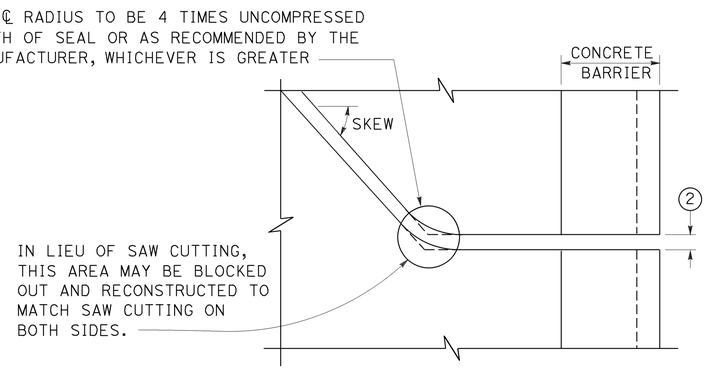


CONCRETE BARRIER

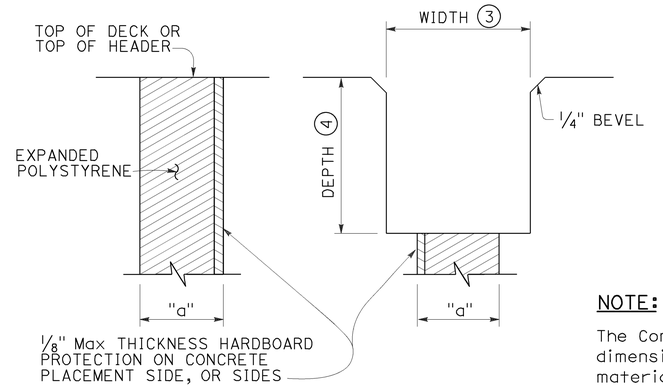
JOINT SEALS DETAILS



PLAN OF JOINT (SKEW ≤ 20°)

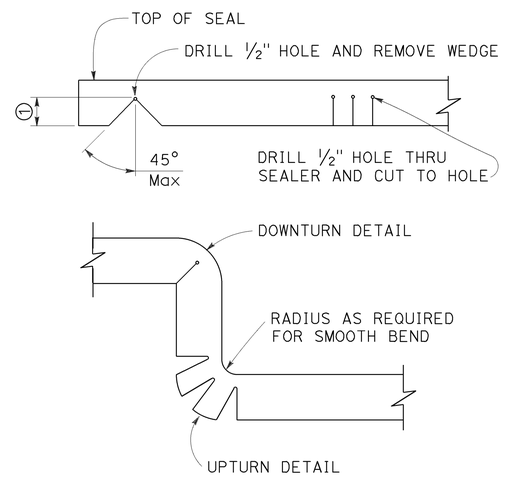


PLAN OF JOINT (SKEW > 20°)



FORMING DETAIL SAWCUT DETAIL

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



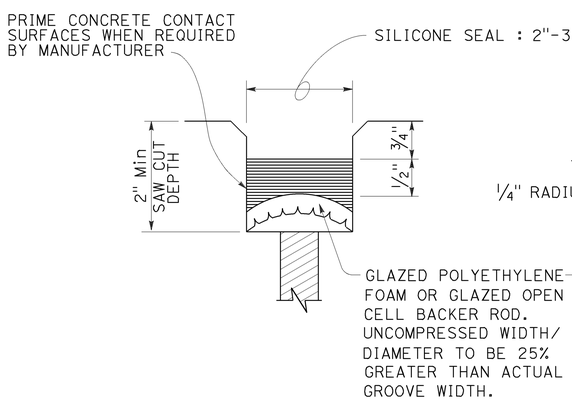
DETAIL A

NOTES:

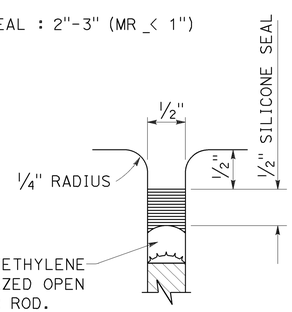
1. Make smooth cuts from the bottom of seal to 1½" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
2. Opening in barrier to match width of sawn deck joint.
3. Sawcut groove widths shall be as ordered by the Engineer.
4. Depth of sawcut: Type A - Depth to be 2" minimum.
   Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W_2) plus dimensions shown.
5. MR (movement rating) as shown on other plan sheets.
6. Other depths must be approved by the Engineer.
7. A sidewalk joint shall be covered by an expansion joint armor.

DIMENSIONS "a" OF JOINT REQUIRED

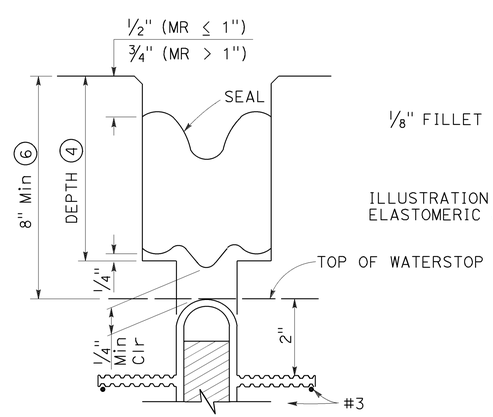
MOVEMENT RATING (MR) 5	BRIDGE TYPE	"a" DIMENSION DECK CONCRETE PLACED		
		WINTER	FALL-SPRING	SUMMER
2"	ALL EXCEPT CIP/PS	1½"	1¼"	¾"
	CIP/PS	1¼"	1"	½"
1½"	ALL EXCEPT CIP/PS	1¼"	1"	½"
	CIP/PS	1"	¾"	½"
1"	ALL EXCEPT CIP/PS	1"	¾"	½"
	CIP/PS	¾"	½"	½"
½"	ALL EXCEPT CIP/PS	¾"	¾"	½"
	CIP/PS	½"	½"	½"



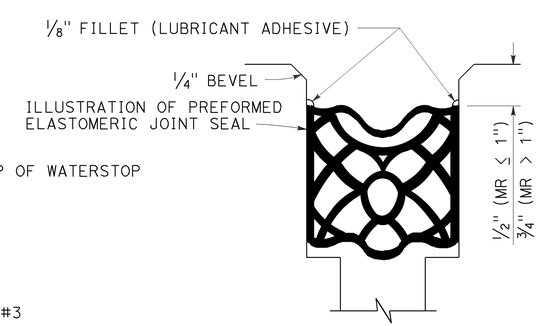
TYPE A SEAL
Movement rating : Silicone = 1" Max



TYPE AL SEAL
Longitudinal joints only



TYPE B JOINT SEAL
IN MINIMUM WIDTH POSITION (W_2)



TYPE B SEAL
Movement Rating ≤ 2"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

NO SCALE

RSP B6-21 DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN B6-21 DATED MAY 20, 2011 - PAGE 283 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B6-21

2010 REVISED STANDARD PLAN RSP B6-21

8-18-15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	30	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BOLLA
No. C 43811
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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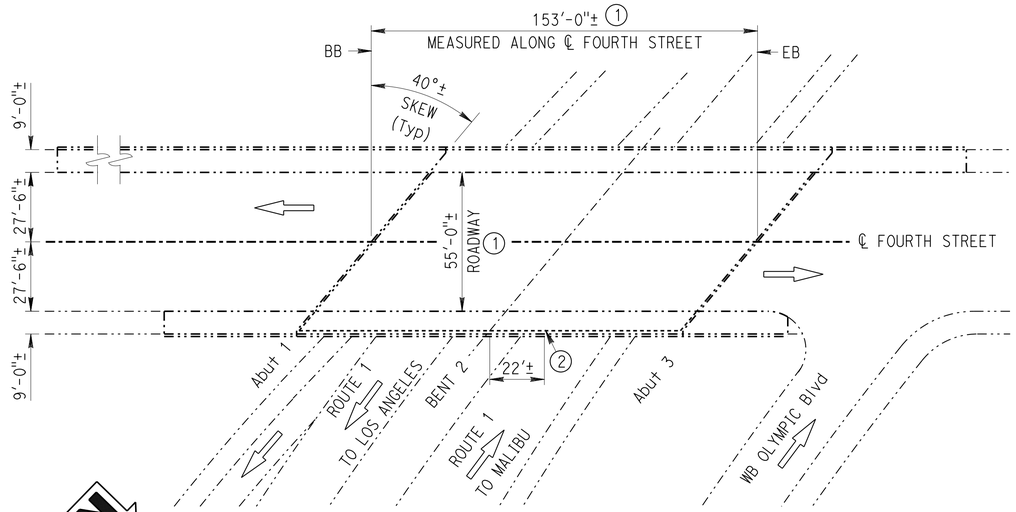


FOURTH STREET OVERCROSSING

Br No. 53-1592, ROUTE 1, PM R34.89
1" = 30'

FOURTH STREET OC — BRIDGE NO. 53-1592

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
REPAIR SPALLED SURFACE AREA	1	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	8,415	SQFT
TREAT BRIDGE DECK	8,415	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	94	GAL

MALIBU LAGOON — BRIDGE NO. 53-2818

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	39,745	SQFT
TREAT BRIDGE DECK	39,745	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	442	GAL

NOTES: (APPLY TO ALL SHEETS)

Indicates existing.

STANDARD PLAN SHEET NUMBER
DETAIL NUMBER

NOTES: (APPLY TO THIS SHEET ONLY)

① Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

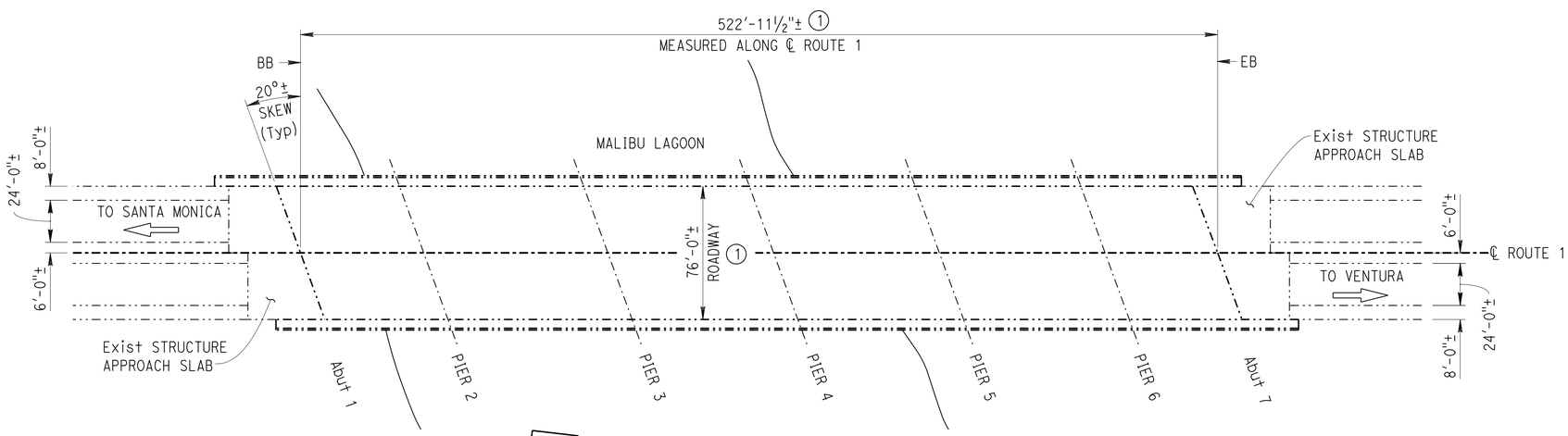
② Indicates approximate location of repair spalled surface area of the bridge girder soffit. For details see "CONCRETE REPAIR DETAILS" on "MISCELLANEOUS DETAILS" sheet.

INDEX TO PLANS

SHEET No.	TITLE
1	GENERAL PLAN No. 1
2	GENERAL PLAN No. 2
3	GENERAL PLAN No. 3
4	GENERAL PLAN No. 4
5	GENERAL PLAN No. 5
6	GENERAL PLAN No. 6
7	GENERAL PLAN No. 7
8	GENERAL PLAN No. 8
9	GENERAL PLAN No. 9
10	GENERAL PLAN No. 10
11	GENERAL PLAN No. 11
12	GENERAL PLAN No. 12
13	GENERAL PLAN No. 13
14	MISCELLANEOUS DETAILS
15	JOINT SEAL DETAILS

STANDARD PLANS DATED 2010

SHEET No.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")



MALIBU LAGOON

Br No. 53-2818, ROUTE 1, PM 46.88
1" = 40'

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	M. HASHIMOTO	T. BOLLA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	G.F. BIDWELL	T. BOLLA	LAYOUT	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA	SPECIFICATIONS	KEVIN ELLINGSON	KEVIN ELLINGSON (PLANS AND SPECS COMPARED)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES — REVISION DATES: 7-31-15 10-13-15 12-15-15 1-7-16

SHEET 1 OF 15

FILE => 07-2w9801_01gp01.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

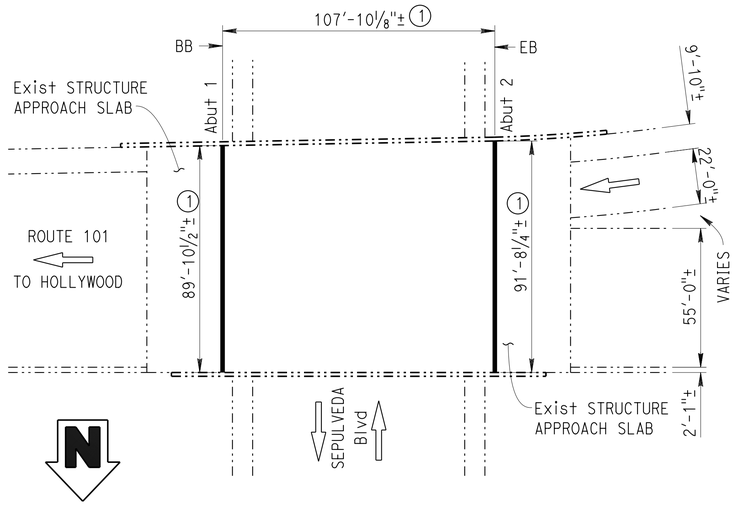
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	31	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

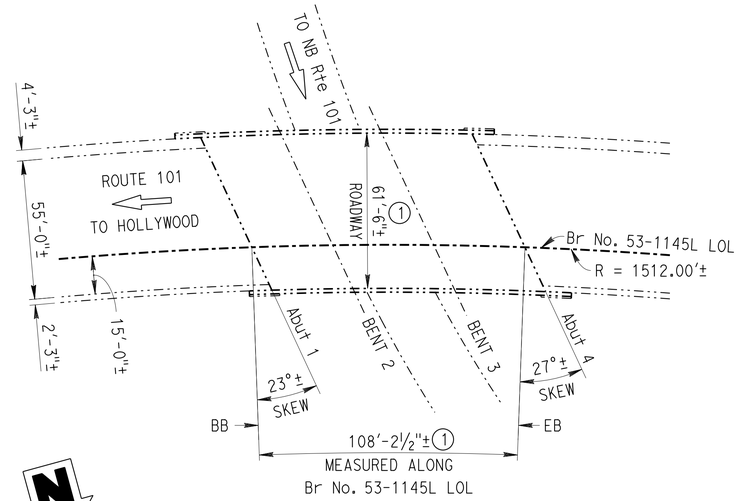
REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BOLLA
No. C 43811
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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.



SEPULVEDA BOULEVARD UNDERCROSSING

Br No. 53-1102L, ROUTE 101, PM 16.94
1" = 30'



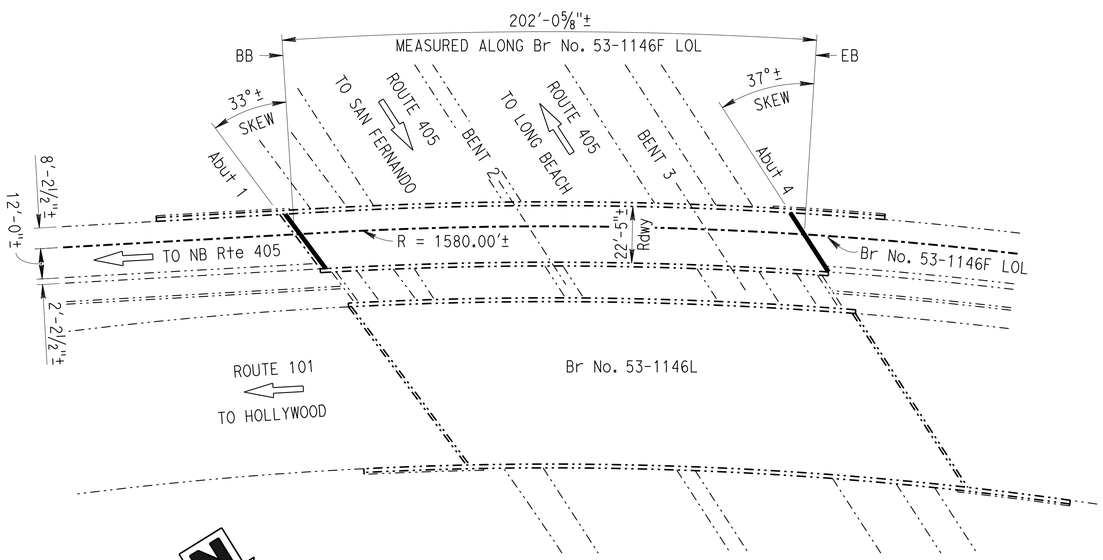
N405-N101 CONNECTOR UNDERCROSSING

Br No. 53-1145L, ROUTE 101, PM 17.07
1" = 30'

NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

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



S101-N405 CONNECTOR OVERCROSSING

Br No. 53-1146F, ROUTE 101, PM 17.14
1" = 30'

SEPULVEDA BLVD UC — BRIDGE NO. 53-1102L

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	9,790	SQFT
TREAT BRIDGE DECK	9,790	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	109	GAL
CLEAN EXPANSION JOINT	183	LF
JOINT SEAL (MR 1/2")	183	LF

N405-N101 CONNECTOR UC — BRIDGE NO. 53-1145L

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	6,665	SQFT
TREAT BRIDGE DECK	6,665	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	74	GAL

S101-N405 CONNECTOR OC — BRIDGE NO. 53-1146F

QUANTITIES

CLEAN EXPANSION JOINT	56	LF
JOINT SEAL (MR 1/2")	29	LF
JOINT SEAL (MR 1")	27	LF

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	M. HASHIMOTO	T. BOLLA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	G.F. BIDWELL	T. BOLLA	LAYOUT	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA	SPECIFICATIONS	KEVIN ELLINGSON	KEVIN ELLINGSON (PLANS AND SPECS COMPARED)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES: 7-31-15 10-13-15 12-15-15 1-7-16
SHEET 2 OF 15

FILE => 07-2w9801_02gp02.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	32	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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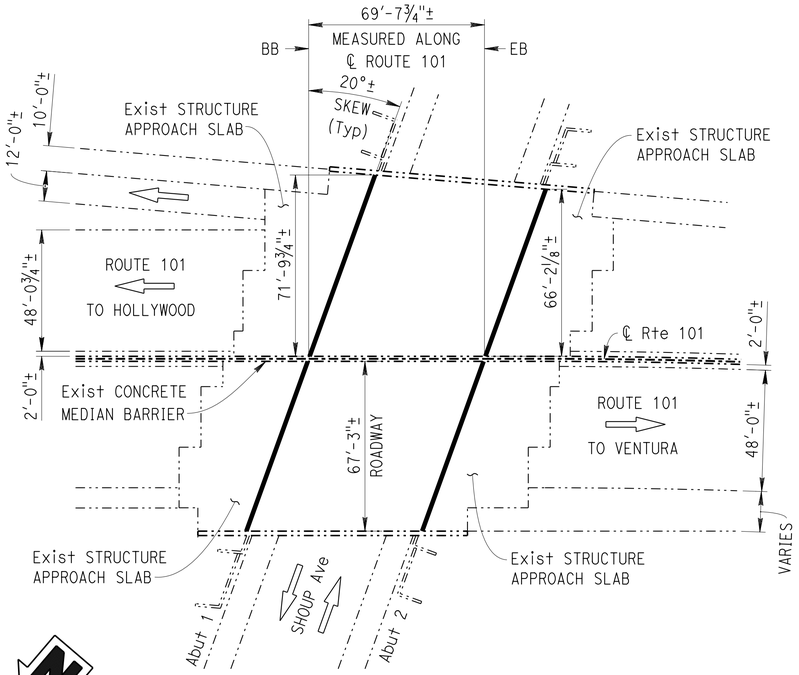
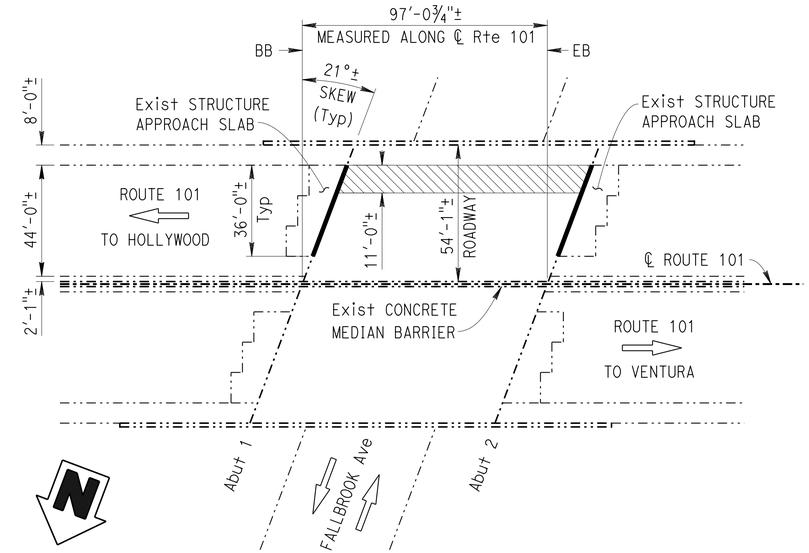


SHOUP AVENUE UNDERCROSSING

Br No. 53-1095, ROUTE 101, PM 25.88
1" = 30'



FALLBROOK AVENUE UNDERCROSSING

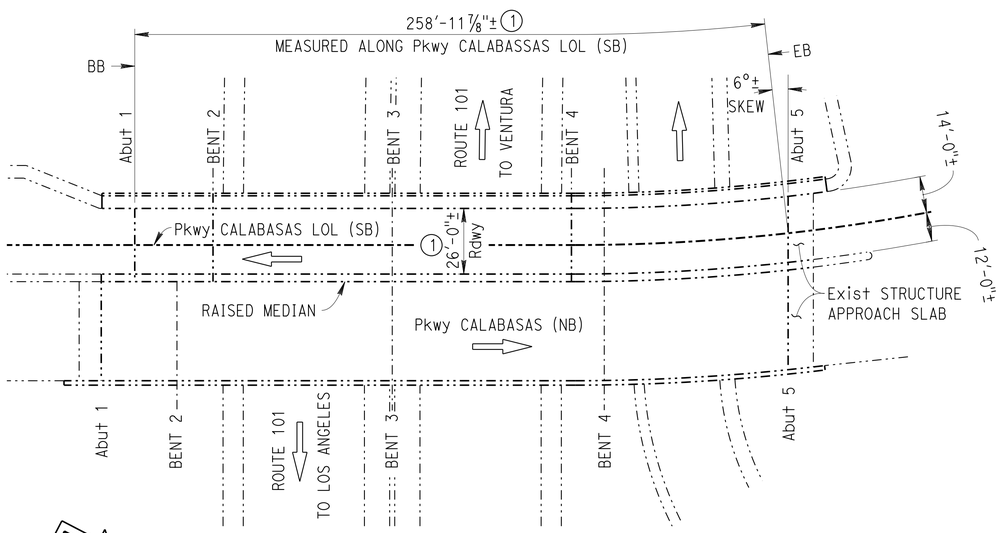
Br No. 53-1066, ROUTE 101, PM 26.45
1" = 30'

NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

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

Indicates approximate location of remove unsound concrete and place rapid setting concrete patch. For details see "JOINT AND DECK REPAIR DETAIL" and "DECK REPAIR TABLE" on "MISCELLANEOUS DETAILS" sheet.



PARKWAY CALABASAS OVERCROSSING

Br No. 53-1680, ROUTE 101, PM 28.29
1" = 30'

SHOUP AVENUE UC BRIDGE NO. 53-1095

QUANTITIES

CLEAN EXPANSION JOINT	292	LF
JOINT SEAL (MR ½")	292	LF

FALLBROOK AVENUE UC BRIDGE NO. 53-1066

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	8	CF
REMOVE UNSOUND CONCRETE	8	CF
CLEAN EXPANSION JOINT	78	LF
JOINT SEAL (MR ½")	78	LF

PARKWAY CALABASAS OC BRIDGE NO. 53-1680

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	6,734	SQFT
TREAT BRIDGE DECK	6,734	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	75	GAL

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
LAYOUT	BY G.F. BIDWELL	CHECKED T. BOLLA
SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 3

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES: 7-31-15 10-13-15 12-18-15 1-7-16

SHEET 3 OF 15

FILE => 07-2w9801_03gp03.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

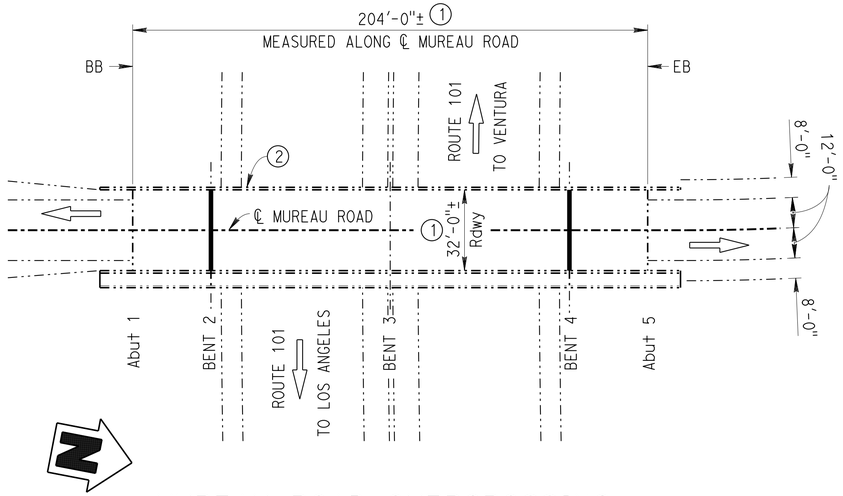
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	33	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

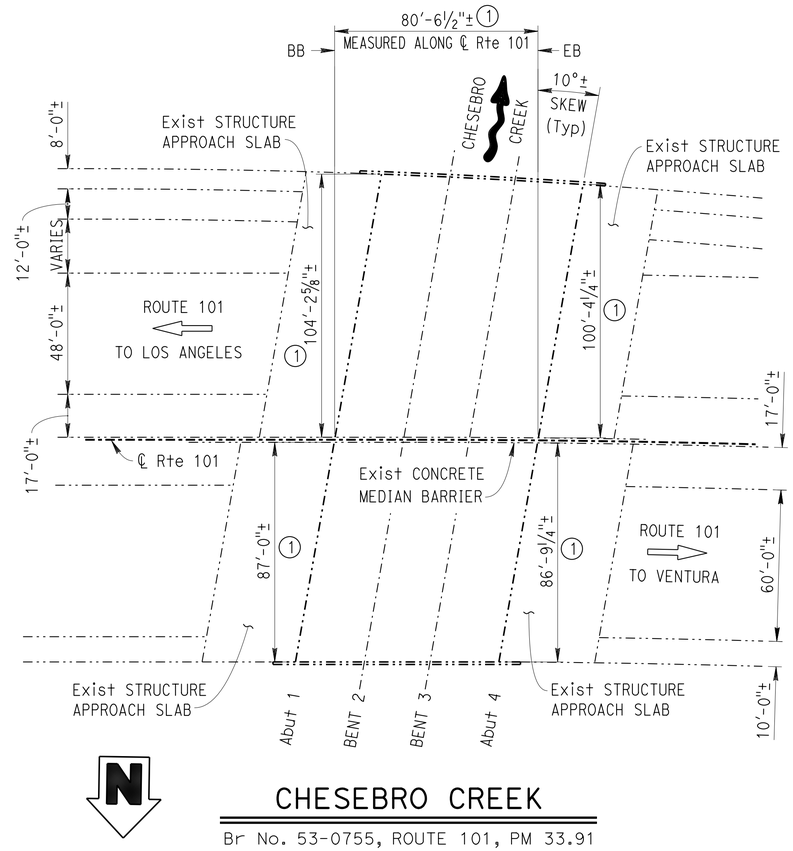
REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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.



MUREAU ROAD OVERCROSSING

Br No. 53-1681, ROUTE 101, PM 29.06
1" = 30'



CHESEBRO CREEK

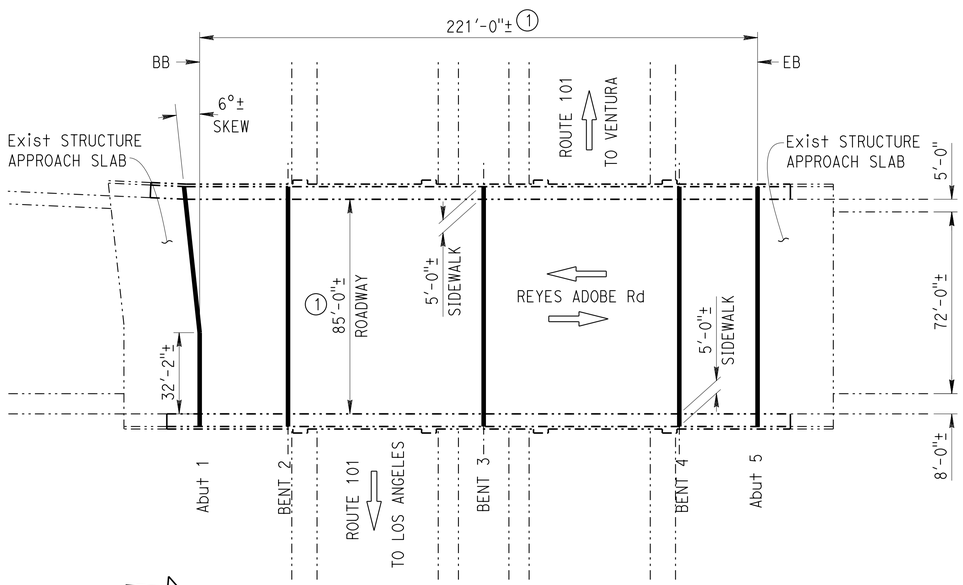
Br No. 53-0755, ROUTE 101, PM 33.91
1" = 30'

NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

(2) Indicates approximate location of repair spalled surface areas of the bridge girder. For details see "CONCRETE REPAIR DETAILS" on "MISCELLANEOUS DETAILS" sheet.

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



REYES ADOBE OVERCROSSING

Br No. 53-1726, ROUTE 101, PM 36.18
1" = 30'

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

MUREAU ROAD OC — BRIDGE NO. 53-1681

QUANTITIES

REPAIR SPALLED SURFACE AREA	1	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	6,528	SQFT
TREAT BRIDGE DECK	6,528	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	73	GAL
CLEAN EXPANSION JOINT	66	LF
JOINT SEAL (MR ½")	66	LF

CHESEBRO CREEK — BRIDGE NO. 53-0755

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	15,237	SQFT
TREAT BRIDGE DECK	15,237	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	170	GAL

REYES ADOBE OC — BRIDGE NO. 53-1726

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	18,932	SQFT
TREAT BRIDGE DECK	18,932	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	210	GAL
CLEAN EXPANSION JOINT	480	LF
JOINT SEAL (MR ½")	480	LF

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
LAYOUT	BY G.F. BIDWELL	CHECKED T. BOLLA
SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 4

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES: ~~7-31-15~~ ~~10-13-15~~ ~~12-15-15~~ 1-7-16

SHEET 4 OF 15

FILE => 07-2w9801_04gp04.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	34	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BOLLA
No. C 43811
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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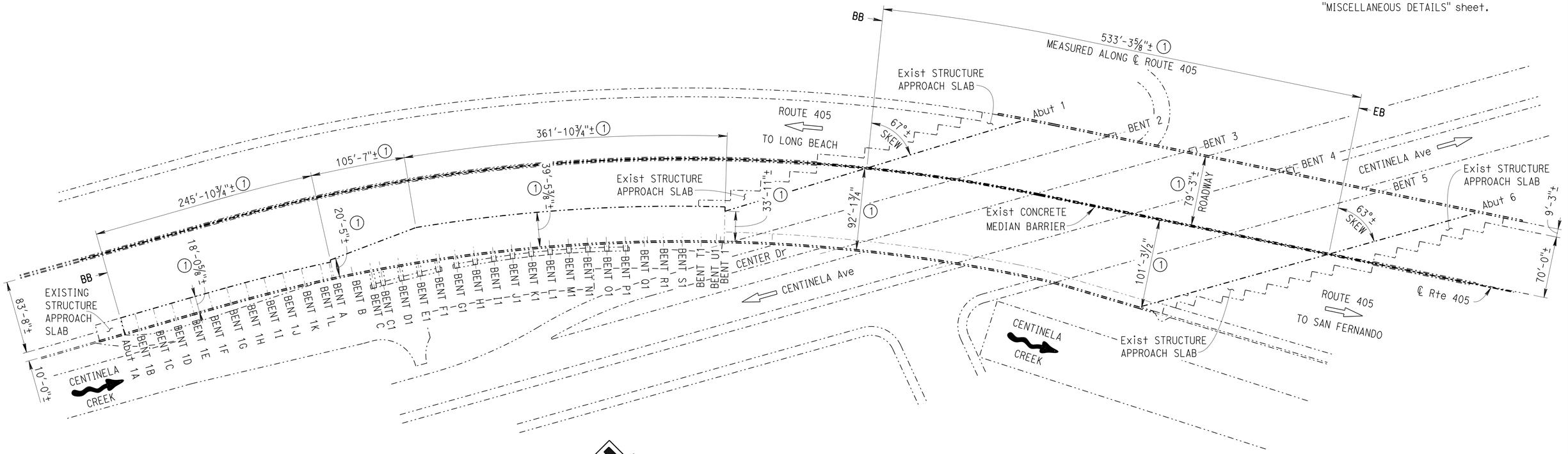
NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.



CENTINELA AVENUE UNDERCROSSING

Br No. 53-1253, ROUTE 405, PM 25.27
NO SCALE

CENTINELA AVENUE UC — BRIDGE NO. 53-1253

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	115,219	SQFT
TREAT BRIDGE DECK	115,219	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	1,280	GAL

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA

LOAD FACTOR DESIGN — LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
LAYOUT — BY G.F. BIDWELL — CHECKED T. BOLLA
SPECIFICATIONS — BY KEVIN ELLINGSON — PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 5

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES — REVISION DATES 7-31-15 10-13-15 12-18-15 1-7-16 — SHEET 5 OF 15

FILE => 07-2w9801_05gp05.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	35	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BOLLA
No. C 43811
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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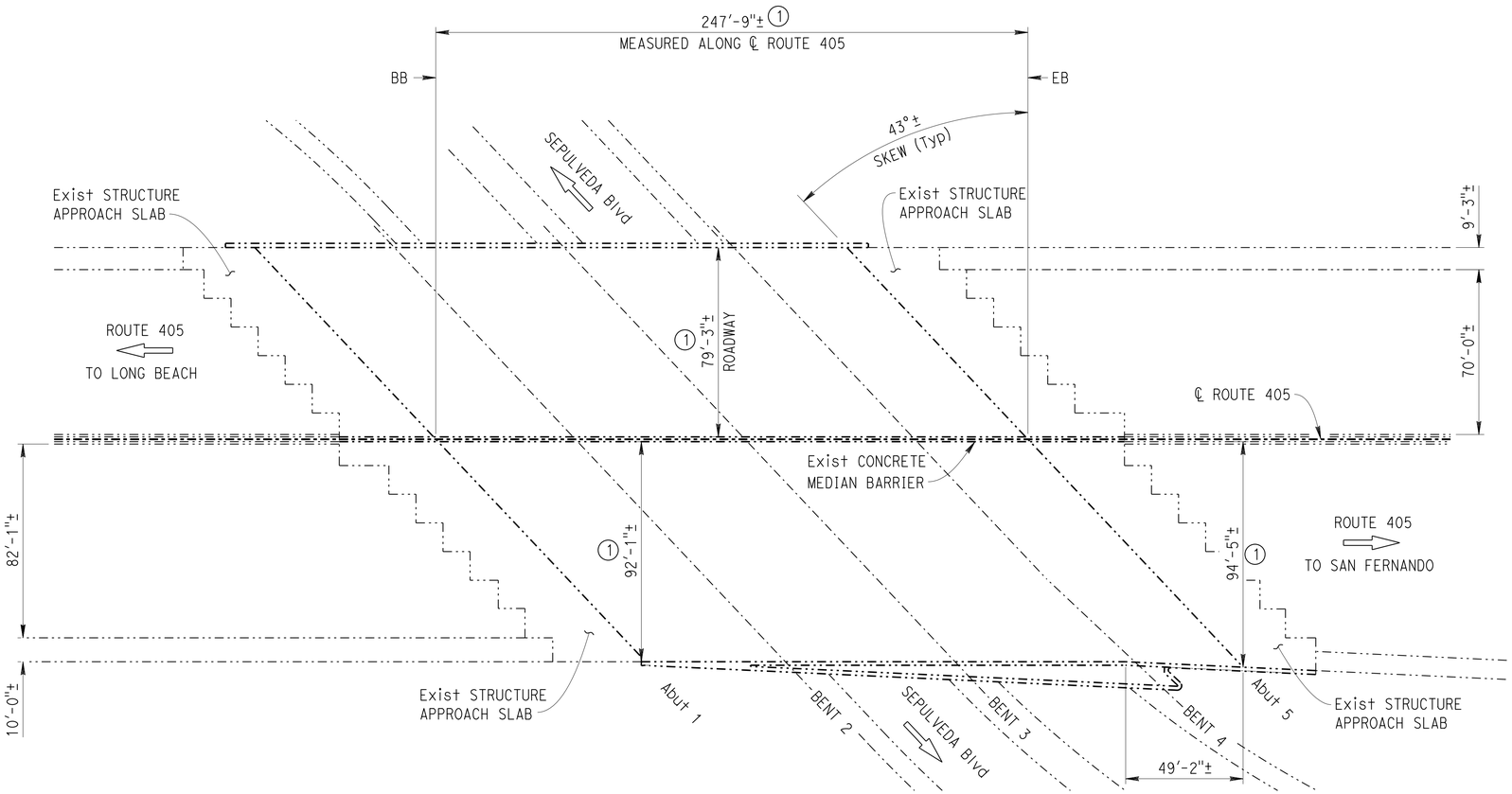
NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.



SEPULVEDA BOULEVARD UNDERCROSSING

Br No. 53-1254, ROUTE 405, PM 25.46
1" = 30'

SEPULVEDA BLVD UC — BRIDGE NO. 53-1254

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	42,503	SQFT
TREAT BRIDGE DECK	42,503	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	472	GAL

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
LAYOUT	BY G.F. BIDWELL	CHECKED T. BOLLA	
SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No.
VARIOUS
POST MILE
VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 6

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES → ~~7-31-15~~ ~~10-13-15~~ ~~12-15-15~~ 1-7-16

SHEET 6 OF 15

FILE => 07-2w9801_06gp06.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	36	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BOLLA
No. C 43811
Exp. 6-30-17
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.

NATIONAL BLVD UC — BRIDGE NO. 53-0703

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	14,292	SQFT
TREAT BRIDGE DECK	14,292	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	159	GAL
CLEAN EXPANSION JOINT	316	LF
JOINT SEAL (MR ½")	316	LF

N405-E&W10 CONNECTOR OC — BRIDGE NO. 53-0703G

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	2	CF
REMOVE UNSOUND CONCRETE	2	CF
CLEAN EXPANSION JOINT	52	LF
JOINT SEAL (MR ½")	52	LF

N405-E10 CONNECTOR OC — BRIDGE NO. 53-1638G

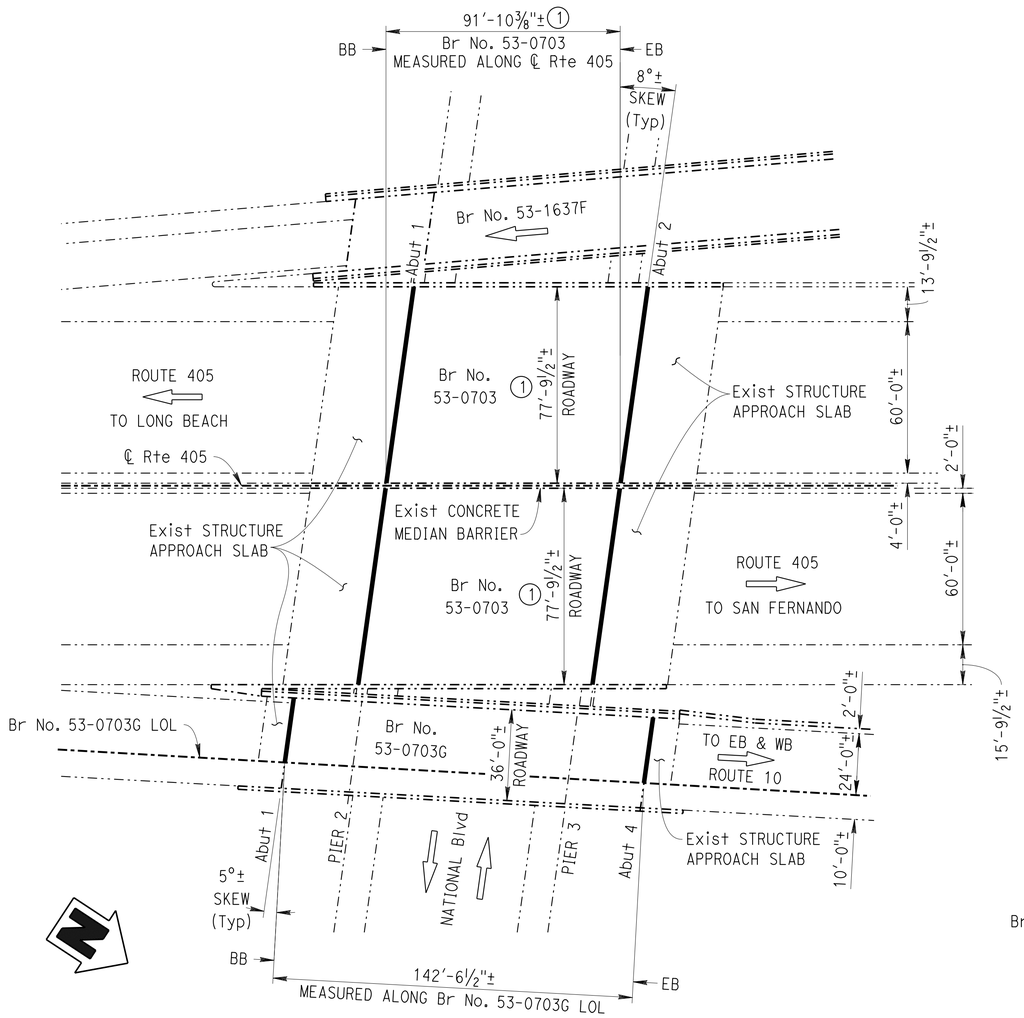
QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	5,351	SQFT
TREAT BRIDGE DECK	5,351	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	59	GAL
CLEAN EXPANSION JOINT	62	LF
JOINT SEAL (MR 1")	62	LF

NOTES: (APPLY TO THIS SHEET ONLY)

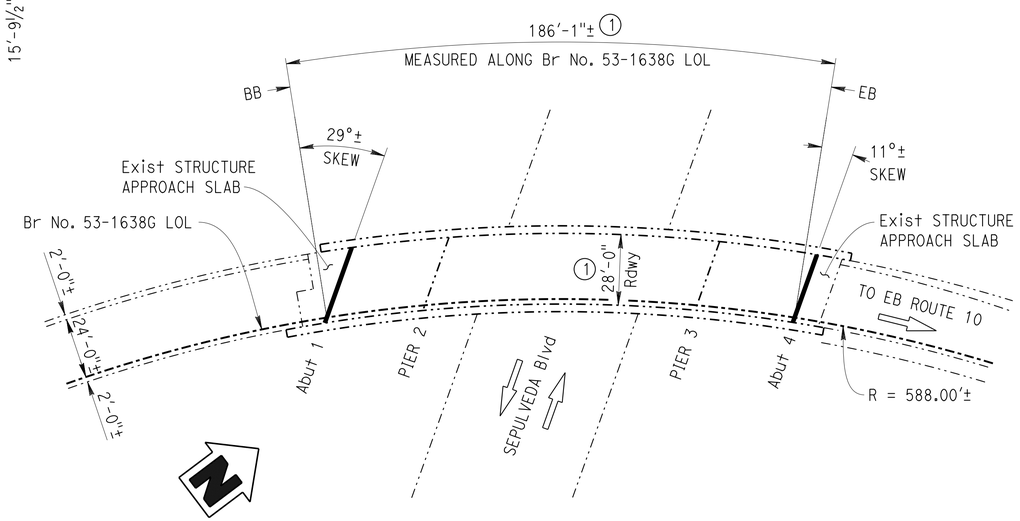
(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

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



NATIONAL BOULEVARD UNDERCROSSING

Br No. 53-0703, ROUTE 405, PM 29.16
1" = 30'



N405-E&W10 CONNECTOR OVERCROSSING

Br No. 53-0703G, ROUTE 405, PM 29.16
1" = 30'

N405-E10 CONNECTOR OVERCROSSING

Br No. 53-1638G, ROUTE 405, PM 29.42
1" = 30'

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	M. HASHIMOTO	T. BOLLA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	G.F. BIDWELL	T. BOLLA	LAYOUT	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA	SPECIFICATIONS	KEVIN ELLINGSON	KEVIN ELLINGSON (PLANS AND SPECS COMPARED)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 7

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES — REVISION DATES: 7-31-15 10-13-15 12-18-15 1-7-16

SHEET 7 OF 15

FILE => 07-2w9801_07gp07.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	37	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BOLLA
No. C 43811
Exp. 6-30-17
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.

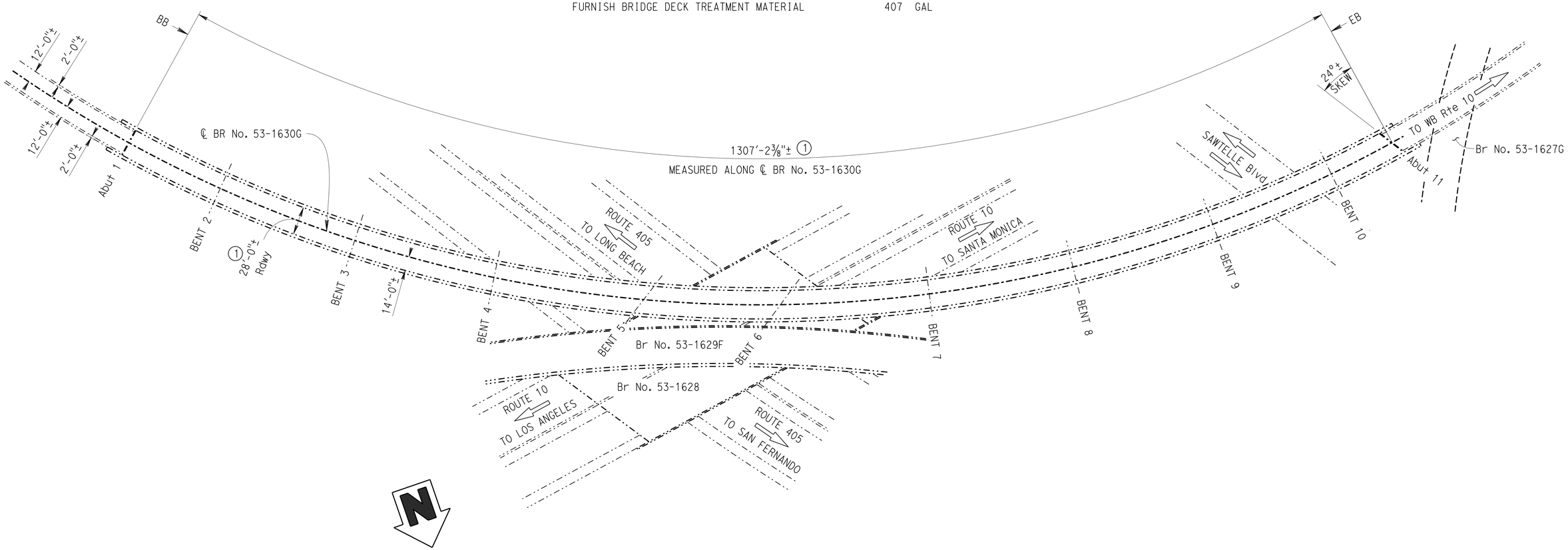
NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

N405-W10 CONNECTOR OC BRIDGE NO. 53-1630G

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	36,602	SQFT
TREAT BRIDGE DECK	36,602	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	407	GAL



N405-W10 CONNECTOR OVERCROSSING

Br No. 53-1630G, ROUTE 405, PM 29.43
1" = 50'

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA

LOAD FACTOR DESIGN — LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD

	BY	CHECKED
LAYOUT	G.F. BIDWELL	T. BOLLA
SPECIFICATIONS	KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 8

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES: 7-31-15 10-13-15 12-15-15 1-7-16

SHEET 8 OF 15

FILE => 07-2w9801_08gp08.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	38	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 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.

S405-E&W10 CONNECTOR OC BRIDGE NO. 53-0704F

QUANTITIES

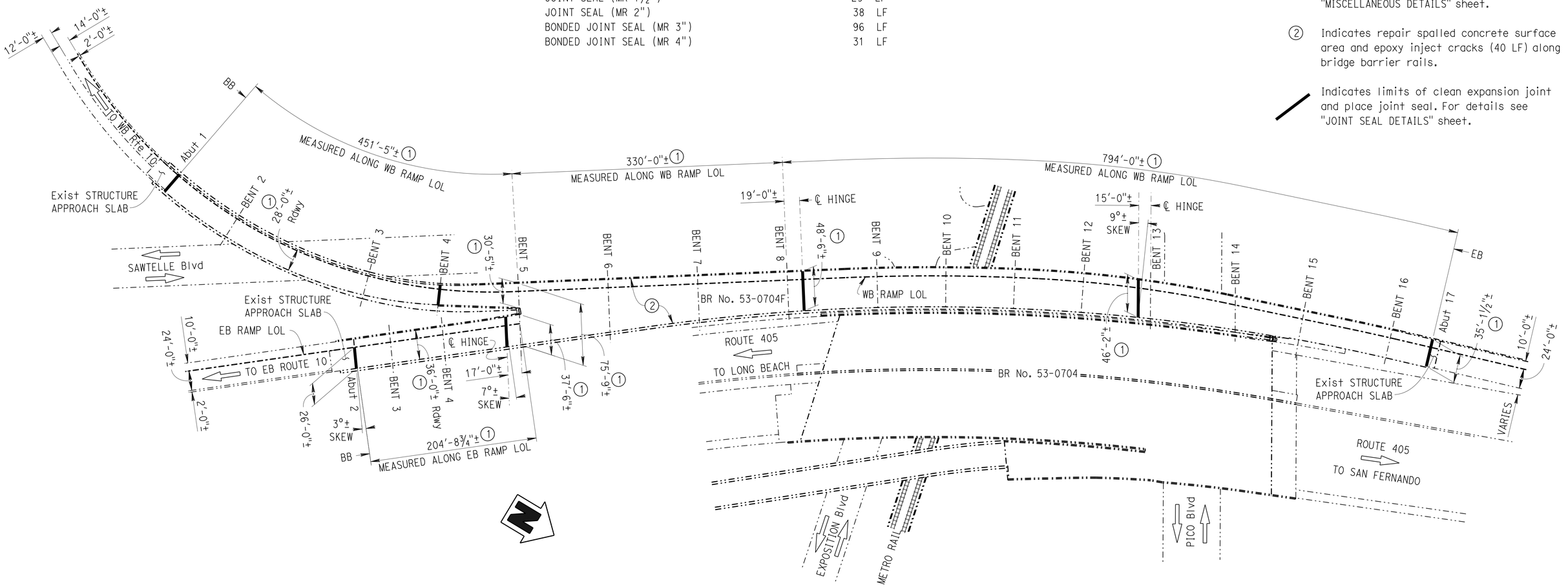
PUBLIC SAFETY PLAN	LUMP	SUM
INJECT CRACK (EPOXY)	40	LF
REPAIR SPALLED SURFACE AREA	10	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	74,412	SQFT
TREAT BRIDGE DECK	74,412	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	827	GAL
CLEAN EXPANSION JOINT	256	LF
JOINT SEAL (MR 1")	62	LF
JOINT SEAL (MR 1½")	29	LF
JOINT SEAL (MR 2")	38	LF
BONDED JOINT SEAL (MR 3")	96	LF
BONDED JOINT SEAL (MR 4")	31	LF

NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

(2) Indicates repair spalled concrete surface area and epoxy inject cracks (40 LF) along bridge barrier rails.

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



S405-E&W10 CONNECTOR OVERCROSSING

Br No. 53-0704F, ROUTE 405, PM 29.85
1" = 60'

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	M. HASHIMOTO	T. BOLLA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	G.F. BIDWELL	T. BOLLA	LAYOUT	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA	SPECIFICATIONS	KEVIN ELLINGSON	KEVIN ELLINGSON (PLANS AND SPECS COMPARED)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 9

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES: 7-31-15 10-13-15 12-15-15 1-7-16

SHEET 9 OF 15

FILE => 07-2w9801_09gp09.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

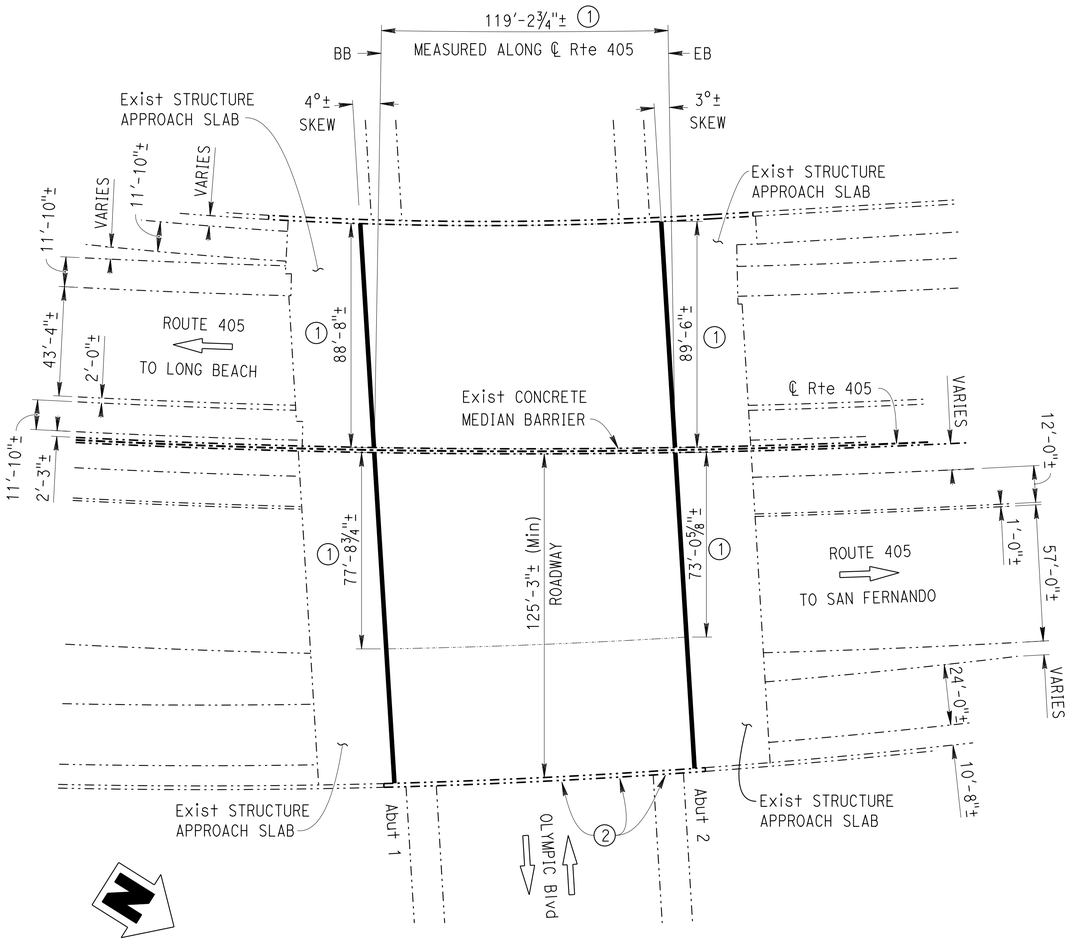
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	39	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 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.



OLYMPIC BOULEVARD UNDERCROSSING

Br No. 53-0706, ROUTE 405, PM 30.18
1" = 30'

OLYMPIC BLVD UC BRIDGE NO. 53-0706

QUANTITIES

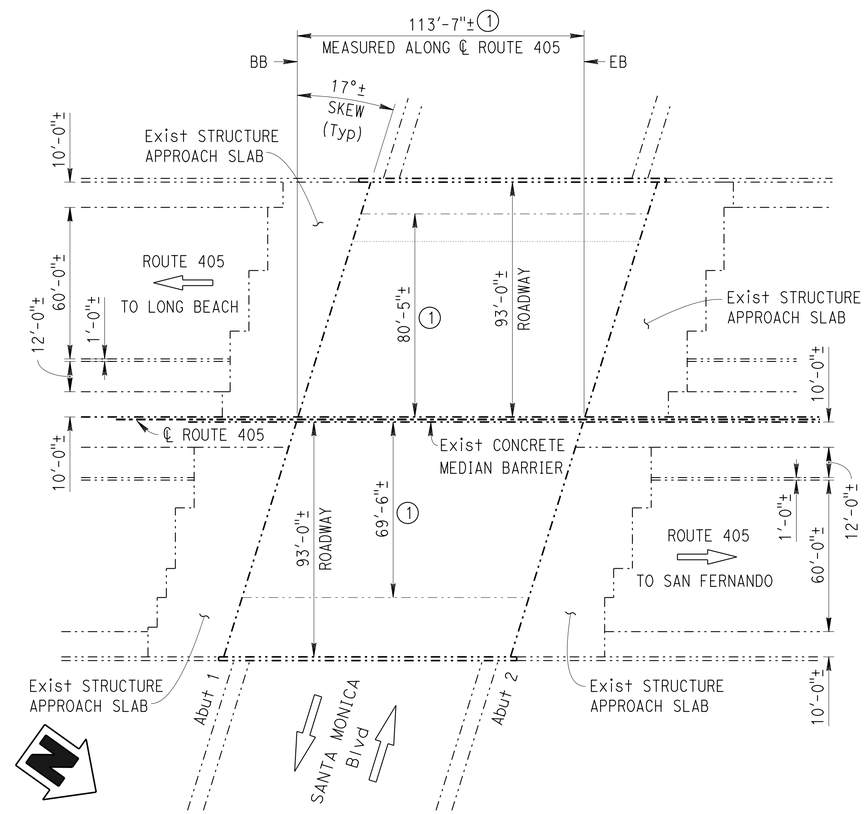
PUBLIC SAFETY PLAN	LUMP	SUM
RAPID SETTING CONCRETE (PATCH)	3	CF
REPAIR SPALLED SURFACE AREA	3	SQFT
REMOVE UNSOUND CONCRETE	3	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	19,730	SQFT
TREAT BRIDGE DECK	19,730	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	219	GAL
CLEAN EXPANSION JOINT	437	LF
JOINT SEAL (MR ½")	437	LF

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

ROUTE 405/2 SEPARATION BRIDGE NO. 53-0708

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	17,028	SQFT
TREAT BRIDGE DECK	17,028	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	189	GAL



ROUTE 405/2 SEPARATION

Br No. 53-0708, ROUTE 405, PM 30.86
1" = 30'

NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

(2) Indicates approximate location of repair spalled concrete surface area of the bridge girder. For details see "CONCRETE REPAIR DETAILS" on "MISCELLANEOUS DETAILS" sheet.

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
LAYOUT	BY G.F. BIDWELL	CHECKED T. BOLLA
SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 10

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 7-31-15 10-13-15 12-15-15 1-7-16

SHEET 10 OF 15

FILE => 07-2w9801_10gp10.dgn

USERNAME => s122236 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	40	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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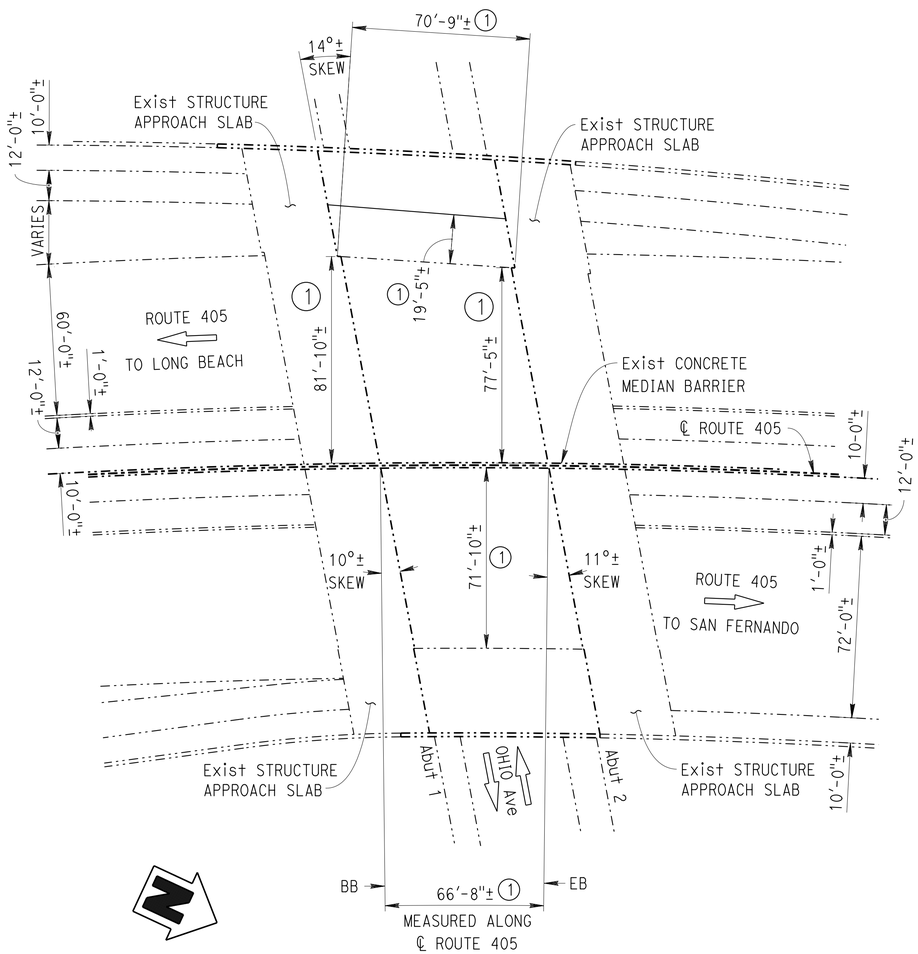
OHIO AVENUE UC BRIDGE NO. 53-1097

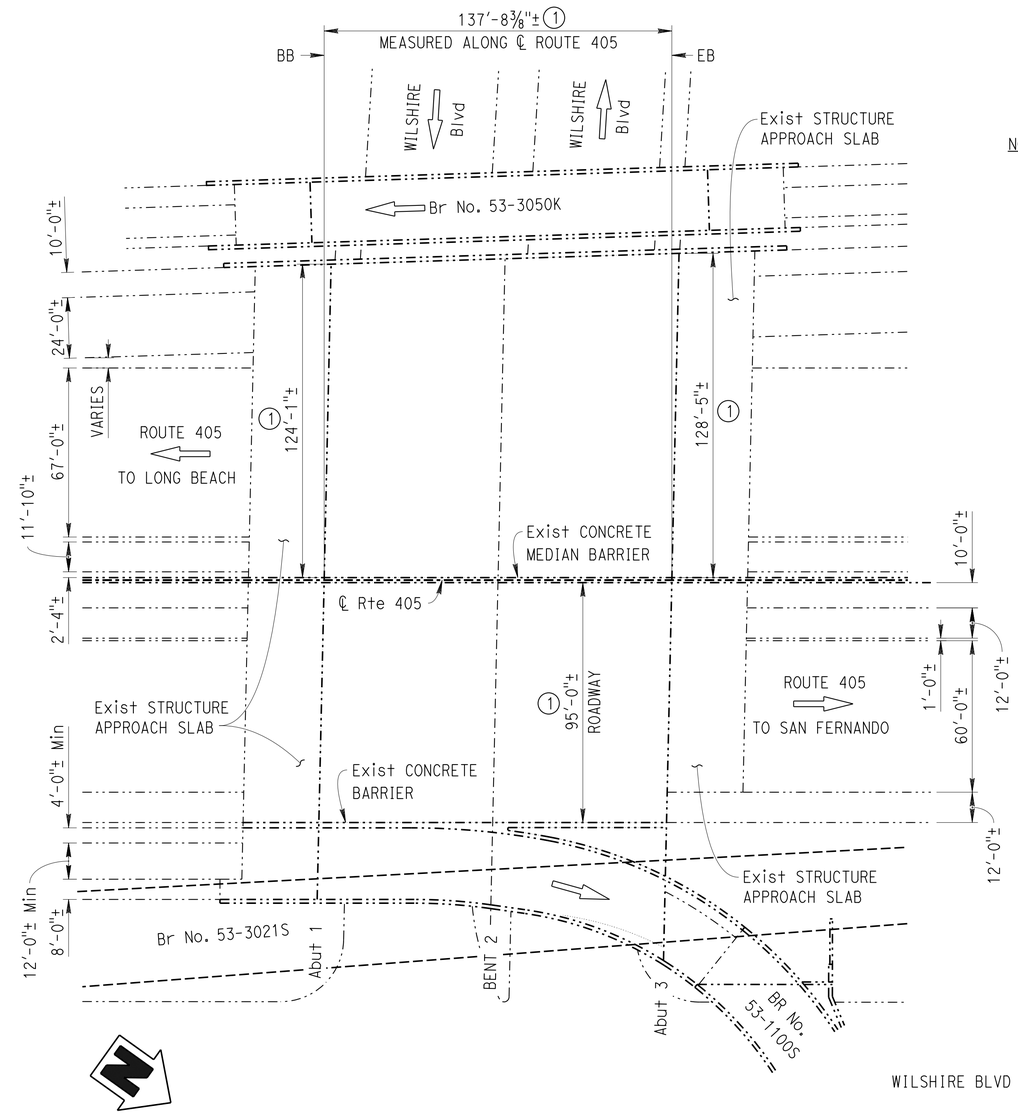
QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	11,473	SQFT
TREAT BRIDGE DECK	11,473	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	127	GAL



OHIO AVENUE UNDERCROSSING

Br No. 53-1097, ROUTE 405, PM 31.05
1" = 30'



WILSHIRE BOULEVARD UNDERCROSSING

Br No. 53-0710, ROUTE 405, PM 31.54
1" = 30'

NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

WILSHIRE BLVD UC BRIDGE NO. 53-0710

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	30,466	SQFT
TREAT BRIDGE DECK	30,466	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	339	GAL

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	M. HASHIMOTO	T. BOLLA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	G.F. BIDWELL	T. BOLLA	LAYOUT	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA	SPECIFICATIONS	KEVIN ELLINGSON	KEVIN ELLINGSON (PLANS AND SPECS COMPARED)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 11

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 7-31-15 10-13-15 12-15-15 1-7-16 SHEET 11 OF 15

FILE => 07-2w9801_11gp11.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 23:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	41	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

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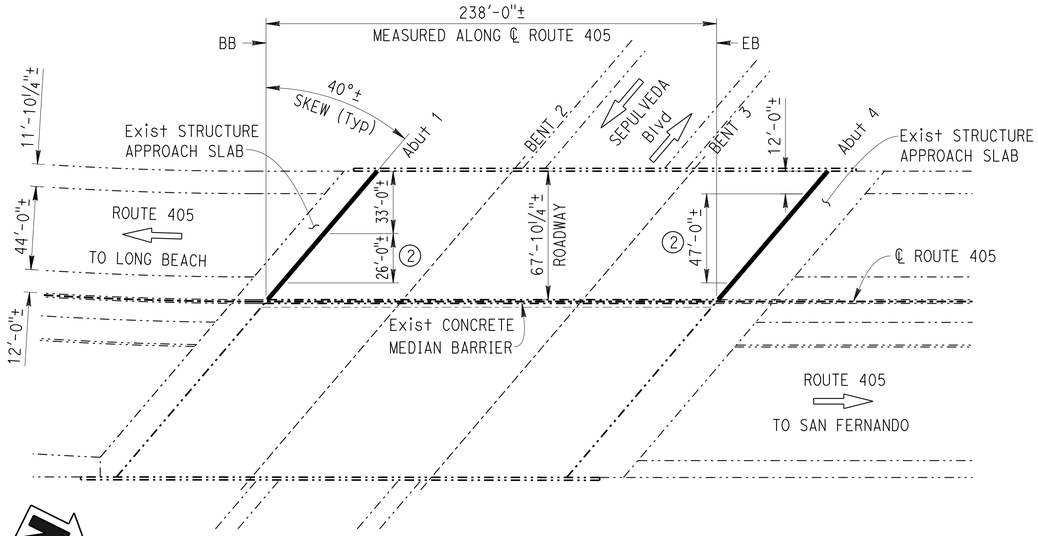


SEPULVEDA BOULEVARD UNDERCROSSING

Br No. 53-0695, ROUTE 405, PM 34.76
1" = 40'

SEPULVEDA BLVD UC — BRIDGE NO. 53-0695

QUANTITIES

POLYESTER CONCRETE EXPANSION DAM	95	CF
DRILL AND BOND DOWEL	60	LF
CLEAN EXPANSION JOINT	178	LF
JOINT SEAL (MR 1")	178	LF

SEPULVEDA BLVD UC — BRIDGE NO. 53-0740

QUANTITIES

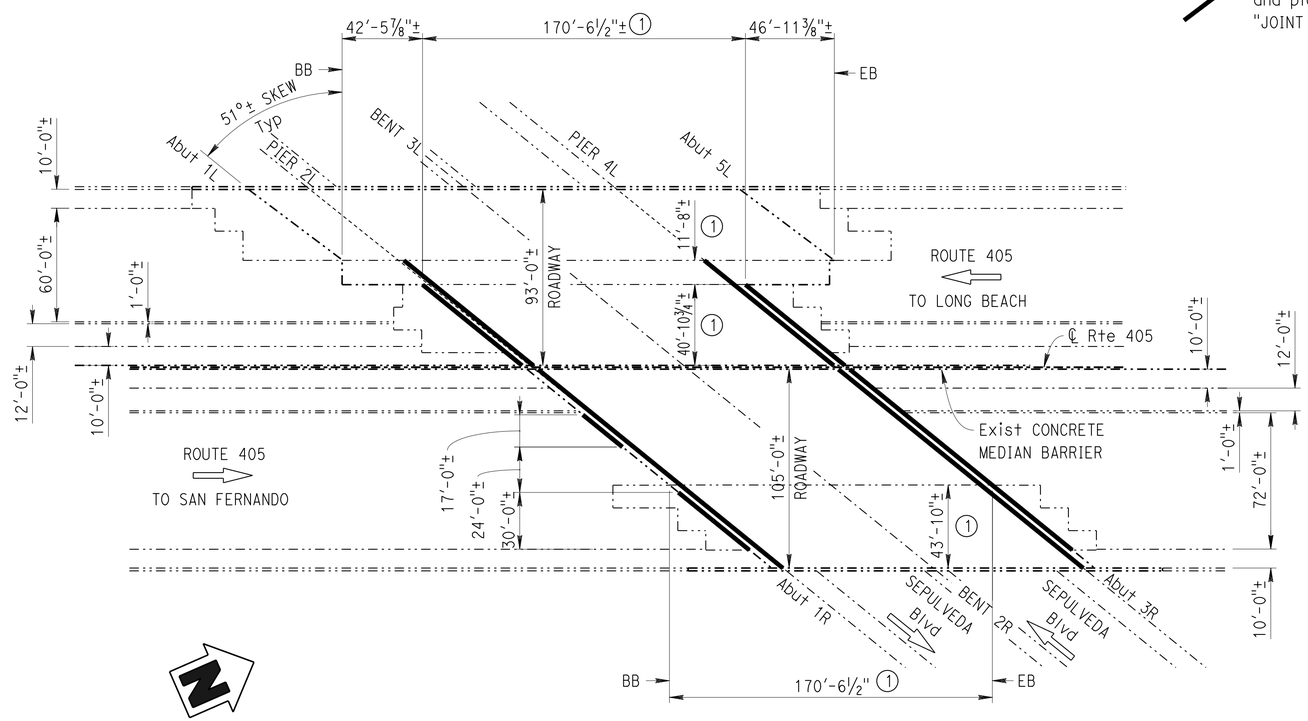
PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	16,440	SQFT
TREAT BRIDGE DECK	16,440	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	183	GAL
CLEAN EXPANSION JOINT	858	LF
JOINT SEAL (MR ½")	858	LF

NOTES: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

(2) Indicates limits of remove existing expansion dam and place new polyester concrete expansion dam. For details see "EXPANSION DAM DETAIL" on "JOINT SEAL DETAILS" sheet.

/ Indicates limits of clean expansion joint and place joint seal. For details see "JOINT SEAL DETAILS" sheet.



SEPULVEDA BOULEVARD UNDERCROSSING

Br No. 53-0740, ROUTE 405, PM 38.59
1" = 40'

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	M. HASHIMOTO	T. BOLLA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	G.F. BIDWELL	T. BOLLA	LAYOUT	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA	SPECIFICATIONS	KEVIN ELLINGSON	KEVIN ELLINGSON (PLANS AND SPECS COMPARED)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 12

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES: 7-31-15 10-13-15 12-15-15 1-7-16

SHEET 12 OF 15

FILE => 07-2w9801_12gp12.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

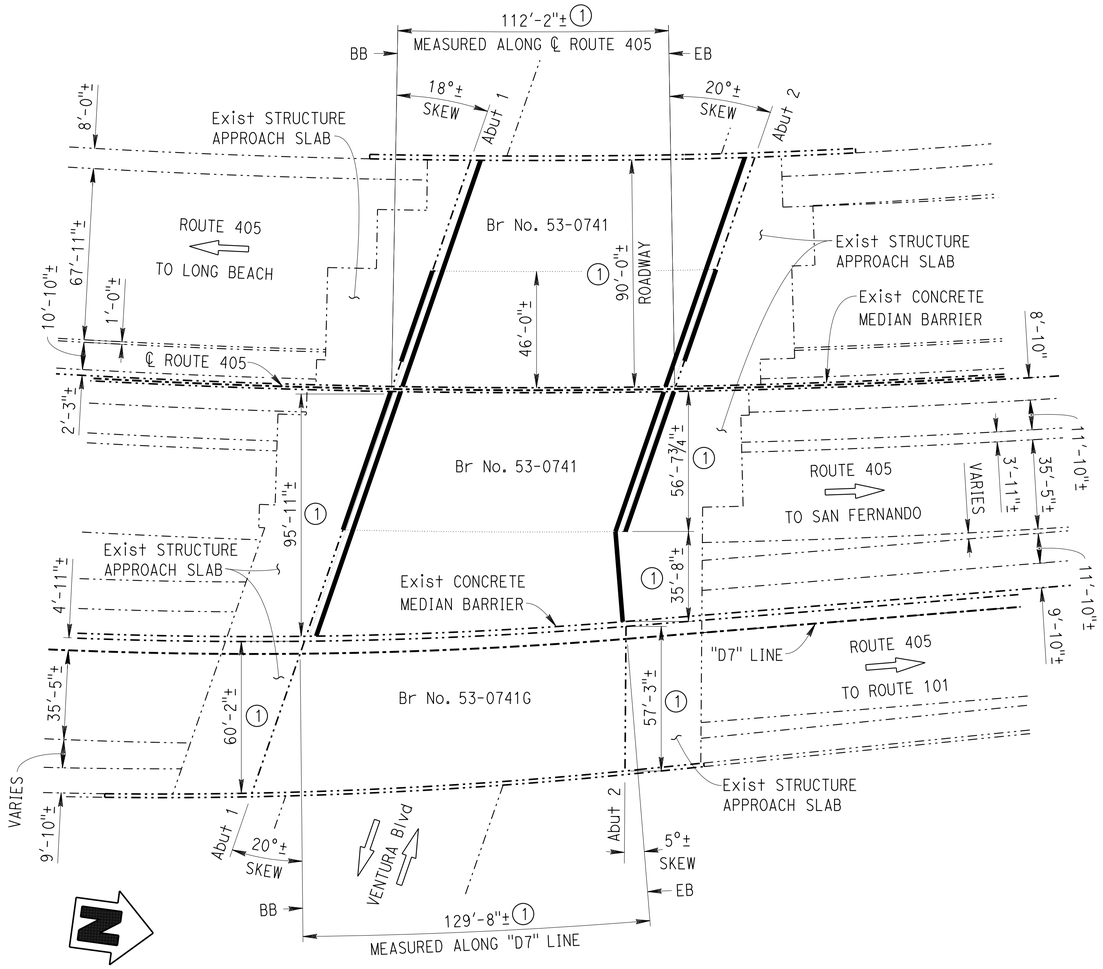
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	42	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 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.



VENTURA BOULEVARD UNDERCROSSING

Br No. 53-0741, ROUTE 405, PM 39.00
1" = 30'

N405-101 ON OVERCROSSING

Br No. 53-0741G, ROUTE 405, PM 39.00
1" = 30'

VENTURA BLVD UC — BRIDGE NO. 53-0741

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	20,553	SQFT
TREAT BRIDGE DECK	20,553	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	228	GAL
CLEAN EXPANSION JOINT	586	LF
JOINT SEAL (MR ½")	393	LF
JOINT SEAL (MR 1")	193	LF

N405-101 ON OC — BRIDGE NO. 53-0741G

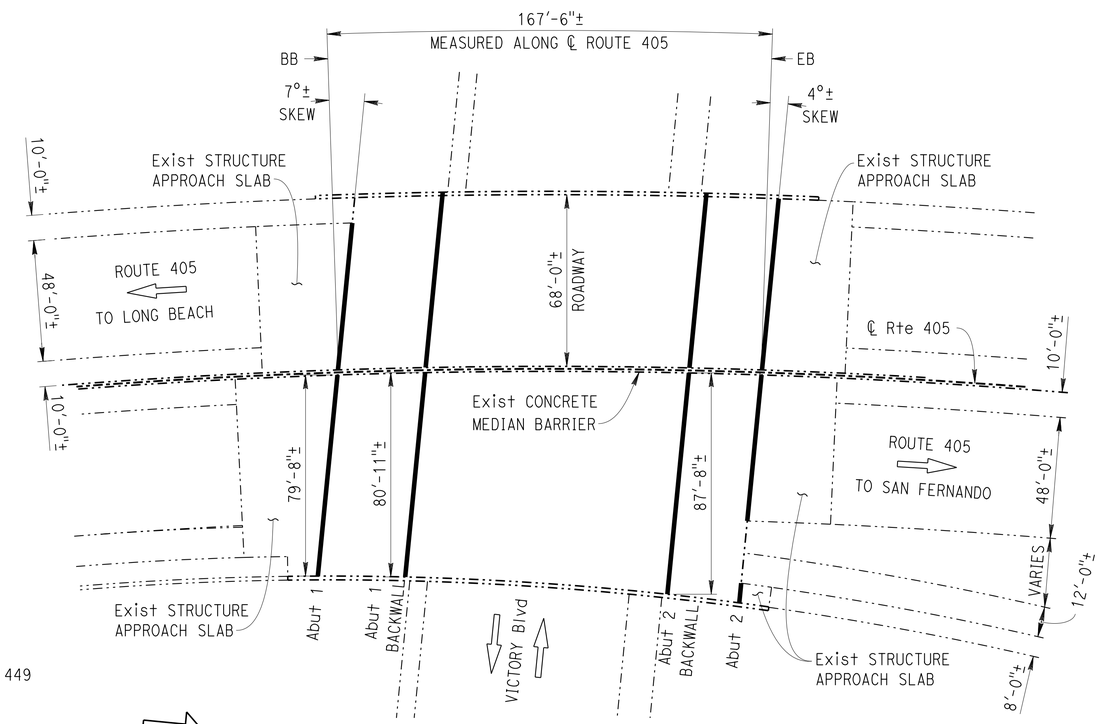
QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	8,089	SQFT
TREAT BRIDGE DECK	8,089	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	90	GAL

NOTES: (APPLY TO THIS SHEET ONLY)

① Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. For details see "DECK TREATMENT LIMITS" on "MISCELLANEOUS DETAILS" sheet.

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



VICTORY BOULEVARD UNDERCROSSING

Br No. 53-1449, ROUTE 405, PM 41.36
1" = 30'

VICTORY BLVD UC — BRIDGE NO. 53-1449

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	1	CF
REMOVE UNSOUND CONCRETE	1	CF
CLEAN EXPANSION JOINT	583	LF
JOINT SEAL (MR ½")	583	LF

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

Michael J. Lee 1-29-16
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	M. HASHIMOTO	T. BOLLA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	G.F. BIDWELL	T. BOLLA	LAYOUT	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA	SPECIFICATIONS	KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
GENERAL PLAN No. 13

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 7-31-15 10-13-15 12-15-15 1-7-16

REVISION DATES

SHEET 13 OF 15

FILE => 07-2w9801_13gp13.dgn

USERNAME => s122236 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	43	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

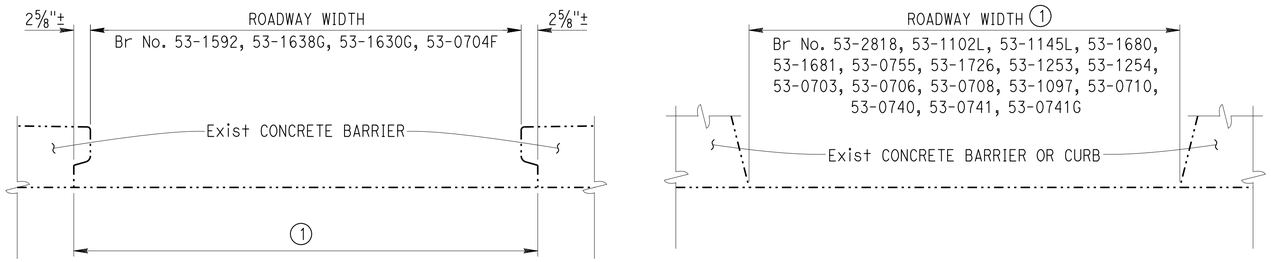
2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BOLLA
No. C 43811
Exp. 6-30-17
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: (APPLY TO THIS SHEET ONLY)

(1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.



DECK TREATMENT LIMITS

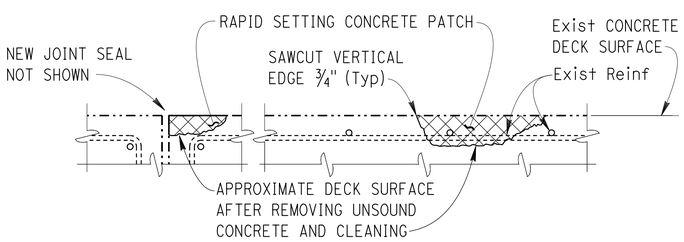
NO SCALE

DECK REPAIR TABLE

REMOVE UNSOUND CONCRETE
AND PLACE RAPID SETTING CONCRETE (PATCH)

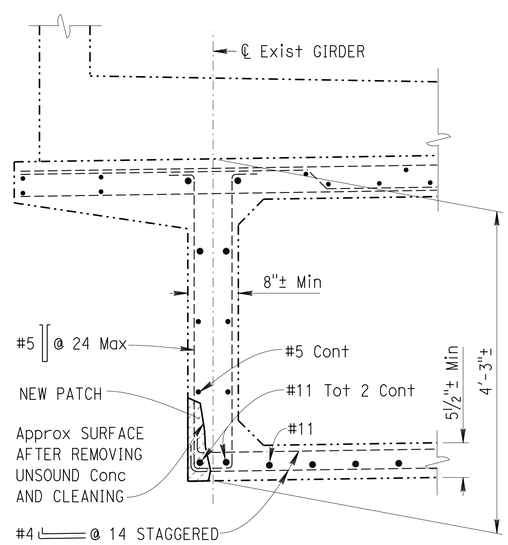
BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (SQUARE FEET)	APPROXIMATE DEPTH (INCHES)
FALLBROOK AVENUE UC	53-1066	32	3
N405-E&W10 CONNECTOR OC	53-0703G	4	6
OLYMPIC Blvd UC	53-0706	6	6
VICTORY Blvd UC	53-1449	1	3

LOCATIONS TO BE DETERMINED BY THE ENGINEER.

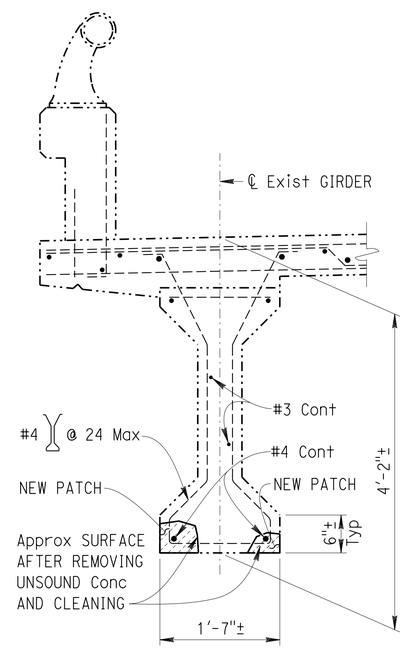


JOINT AND DECK REPAIR DETAIL

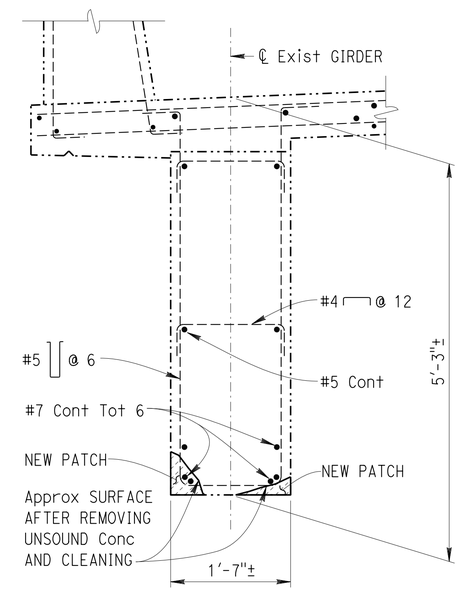
LOCATIONS TO BE DETERMINED BY THE ENGINEER.
REINFORCEMENT MAY BE ENCOUNTERED
DURING DECK CONCRETE REMOVAL.
NO SCALE



FOURTH STREET OC (Br No. 53-1592)



MUREAU ROAD OC (Br No. 53-1681)



OLYMPIC Blvd UC (Br No. 53-0706)

NOTE:
ALL REINFORCING STEEL SHOWN IS EXISTING (RETAIN)

CONCRETE REPAIR DETAILS

LOCATIONS TO BE DETERMINED BY THE ENGINEER. REINFORCEMENT
MAY BE ENCOUNTERED DURING CONCRETE REMOVAL.
NO SCALE

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

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
QUANTITIES	M. HASHIMOTO	T. BOLLA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE No. VARIOUS
POST MILE VARIES

ROUTES 1, 101 & 405 BRIDGES
TREAT DECK & REPLACE JOINT SEALS
MISCELLANEOUS DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000031 1
CONTRACT No.: 07-2W9804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES 7-31-15 10-13-15 12-15-15 1-7-16

SHEET 14 OF 15

FILE => 07-2w9801_14miscdets.dgn

USERNAME => s122436 DATE PLOTTED => 10-FEB-2016 TIME PLOTTED => 11:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 101, 405	Var	44	44

Thomas J. Bolla 1-29-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BOLLA No. C 43811 Exp. 6-30-17 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.

JOINT SEAL TABLE

BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCHES)	APPROXIMATE LENGTH (FEET)	EXISTING WATERSTOP	APPROXIMATE DEPTH TO CLEAN EXPANSION JOINT (INCHES)
SEPULVEDA Blvd UC	53-1102L	Abut 1	BB	½	91	NO	12
		Abut 2	EB	½	92	NO	12
S101-N405 Conn OC	53-1146F	Abut 1	BW	1 **	27	NO	12
		Abut 4	EB	½	29	NO	12
SHOUP Ave UC	53-1095	Abut 1	BB	½	149	NO	12
		Abut 2	EB	½	143	NO	12
FALLBROOK Ave UC	53-1066	Abut 1	BB	½	39	NO	12
		Abut 2	EB	½	39	NO	12
MUREAU ROAD OC	53-1681	BENT 2	℄	½	33	YES	6
		BENT 4	℄	½	33	YES	6
REYES ADOBE OC	53-1726	Abut 1	BB	½	97	NO	12
		BENT 2	℄	½	96	YES	6
		BENT 3	℄	½	96	YES	6
		BENT 4	℄	½	96	YES	6
		Abut 5	EB	½	96	NO	12
NATIONAL Blvd UC	53-0703	Abut 1	BB	½	158	NO	12
		Abut 2	EB	½	158	NO	12
N405-E&W10 Conn OC	53-0703G	Abut 1	BB	½	26	NO	12
		Abut 4	EB	½	26	NO	12
N405-E10 Conn OC	53-1638G	Abut 1	BB	1	33	NO	12
		Abut 4	EB	1	29	NO	12
S405-E&W10 Conn OC	53-0704F	Abut 1	BB	1½	29	NO	12
		Abut 2	BB	1	27	NO	12
		BENT 4	℄	4 *	31	YES	6
		SPAN 4	H	2	38	YES	6
		SPAN 8	H	3 *	49	YES	6
		SPAN 12	H	3 *	47	YES	6
		Abut 17	EB	1	35	NO	12
OLYMPIC Blvd UC	53-0706	Abut 1	BB	½	221	NO	12
		Abut 2	EB	½	216	NO	12
SEPULVEDA Blvd UC	53-0695	Abut 1	BB	1 **	89	NO	12
		Abut 4	EB	1 **	89	NO	12
SEPULVEDA Blvd UC	53-0740	Abut 1R	BB	½	140	NO	12
			BW	½	251	YES	6
		Abut 3R	BW	½	251	YES	6
			EB	½	216	NO	12

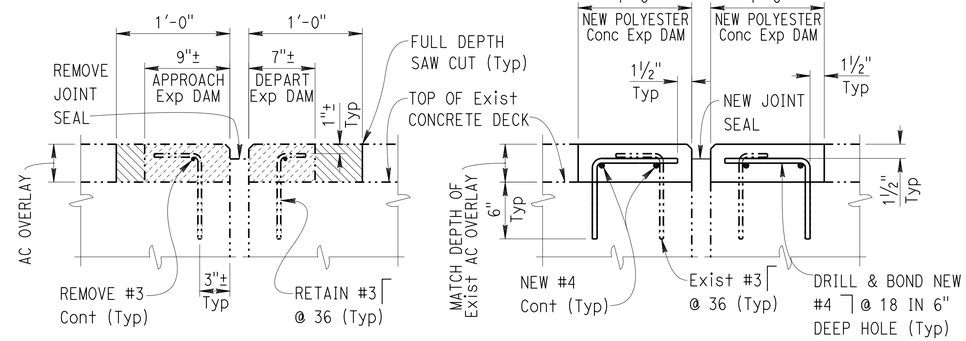
LEGEND:
BB = BEGINNING OF BRIDGE
EB = END OF BRIDGE
BW = ABUTMENT BACKWALL
H = HINGE
℄ = CENTERLINE OF BENTS
* = BONDED JOINT SEAL
** = SILICONE JOINT SEAL

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

JOINT SEAL TABLE (CONTINUED)

BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCHES)	APPROXIMATE LENGTH (FEET)	EXISTING WATERSTOP	APPROXIMATE DEPTH TO CLEAN EXPANSION JOINT (INCHES)
VENTURA Blvd UC	53-0741	Abut 1	BB	½	98	NO	12
			BW	½	196	NO	12
		Abut 2	BW	1	193	NO	12
			EB	½	99	NO	12
VICTORY Blvd UC	53-1449	Abut 1	BB	½	139	NO	12
			BW	½	151	YES	5
		Abut 2	BW	½	157	YES	5
			EB	½	136	NO	12

LEGEND:
BB = BEGINNING OF BRIDGE
EB = END OF BRIDGE
BW = ABUTMENT BACKWALL



EXISTING RECONSTRUCTION

NOTES: (APPLY TO THIS SHEET ONLY)

Indicates limits of remove existing concrete expansion dam.

Indicates limits of remove existing AC overlay.

EXPANSION DAM DETAIL

Br No. 53-0695
NO SCALE

The following notes apply to JOINT SEAL TYPE B:

1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.

2) Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be calculated by the Engineer.

3) W1 shall be the smaller of the values determined as follows:

   A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.

   B) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.

4) Bend Type B joint seal 6" up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.

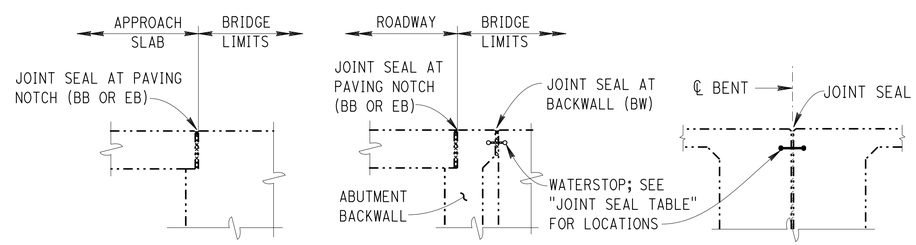
5) For details not shown see RSP B6-21

TEMPORARY DECKING DESIGN LOADING

Br No. 53-0695

MOMENT DEMAND/FOOT (kip-ft/ft)	ANCHOR BOLT SHEAR/FOOT (kip/ft)	ANCHOR BOLT TENSION (kip)
6.4	3.9	4.3

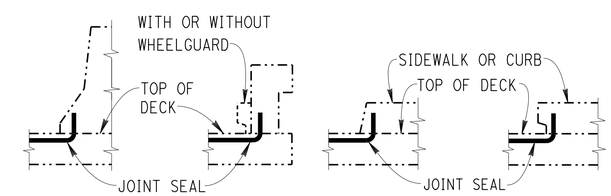
Plate deflection shall not exceed s/300 (s = span of plate).
Maximum anchor bolt spacing = 0'-9".



DIAPHRAGM ABUTMENT ABUTMENT WITH BACKWALL BENT

JOINT SEAL LOCATION

NO SCALE



BARRIER RAIL SIDEWALK OR CURB

JOINT SEAL AT LOW SIDE OF DECK

DETAILS SHOWN FOR ILLUSTRATION PURPOSES ONLY. FOR USE ONLY WHERE DECK JOINT MATCHES THE BARRIER RAIL
NO SCALE

	BY	CHECKED
DESIGN	M. HASHIMOTO	T. BOLLA
DETAILS	G.F. BIDWELL	T. BOLLA
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SHEET 15 OF 15

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