| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 1 | 32 |

ACNHP-Q101(256)E

STATE OF CALIFORNIA
# DEPARTMENT OF TRANSPORTATION

## PROJECT PLANS FOR CONSTRUCTION ON
# STATE HIGHWAY

## IN MENDOCINO COUNTY NEAR HOPLAND FROM HOPLAND OVERHEAD BRIDGE TO FELIZ CREEK BRIDGE AND FROM 0.1 MILE NORTH OF FIRST STREET TO ROBINSON CREEK BRIDGE

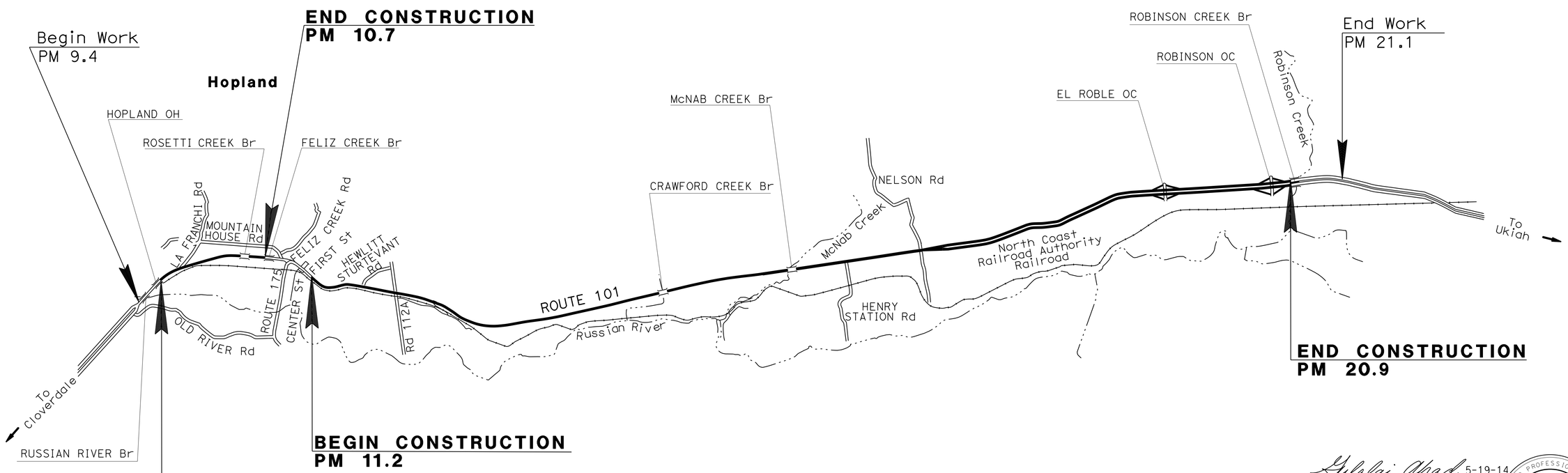
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS


| SHEET No. | DESCRIPTION |
|---|---|
| 1 | TITLE AND LOCATION MAP |
| 2-4 | TYPICAL CROSS SECTIONS |
| 5-14 | CONSTRUCTION DETAILS |
| 15 | CONSTRUCTION AREA SIGNS |
| 16-18 | PAVEMENT DELINEATION QUANTITIES |
| 19-21 | SUMMARY OF QUANTITIES |
| 22-32 | REVISED STANDARD PLANS |


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

LOCATION MAP




NO SCALE

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

Gulalai Ahad 5-19-14
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

May 19, 2014
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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

PROJECT MANAGER STEVEN BLAIR
DESIGN ENGINEER TAREK TABSHOURI

| CONTRACT No. | 01-362914 |
|---|---|
| PROJECT ID | 0112000148 |

LAST REVISION 00-00-00
DATE PLOTTED => 08-SEP-2014
TIME PLOTTED => 13:26

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 2 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gulalai Ahad No. 81803 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

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

## NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.
3. EXACT LOCATIONS AND TYPES OF DIKE ARE SHOWN IN THE SUMMARY OF QUANTITIES SHEETS.

## DESIGN DESIGNATION

PM 9.6/10.7

| | | | |
|---|---|---|---|
| ADT (2015) | 15,400 | D | 60% |
| ADT (2025) | 17,600 | T | 8% |
| DHV | 1,310 | V | 55 mph |
| ESAL | 338,000 | $TI_{20}$ | 11.5 |

PM 11.2/20.9

| | | | |
|---|---|---|---|
| ADT (2015) | 15,600 | D | 60% |
| ADT (2025) | 17,800 | T | 8% |
| DHV | 1,580 | V | 55 mph |
| ESAL | 343,000 | $TI_{20}$ | 11.5 |

PAVEMENT CLIMATE REGION: LOW MOUNTAIN

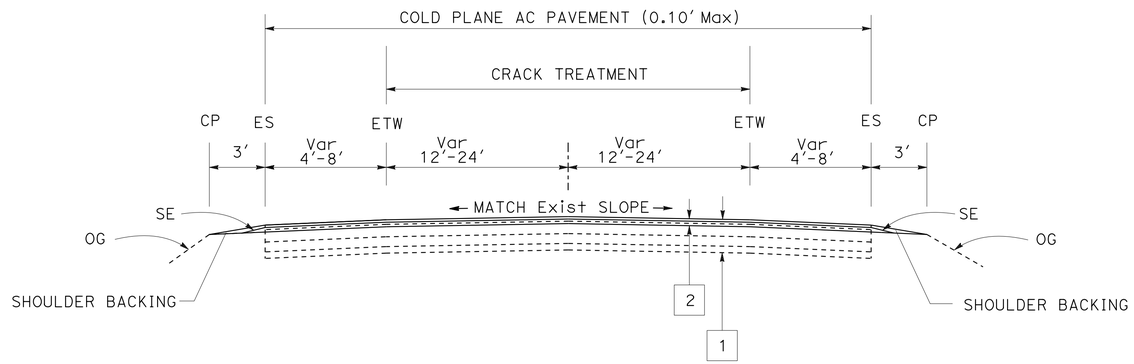
## ABBREVIATIONS:

RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADED)
RHMA-O (BWC) - RUBBERIZED HOT MIX ASPHALT-OPEN GRADED (BONDED WEARING COURSE)
SE - SAFETY EDGE
LL - LANE LINE

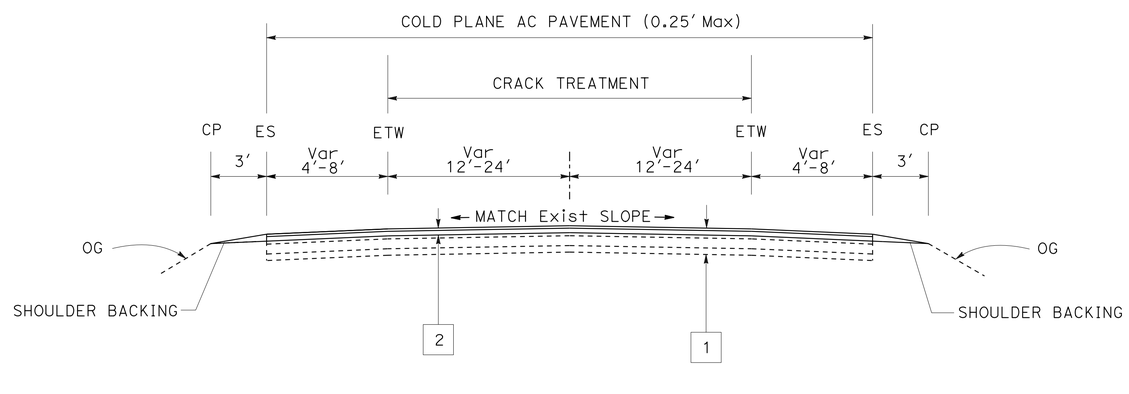
## STRUCTURAL SECTIONS:

1 EXISTING STRUCTURAL SECTION
0.75' TO 1.20' AC
0.60' TO 1.65' AB
0.40' TO 0.75' ACB

2 0.10' RHMA-O (BWC)
0.15' RHMA-G




PM 11.20 TO 17.50




PM 9.60 TO 10.65

# TYPICAL CROSS SECTIONS

NO SCALE

X - 1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 05-SEP-2014 | TIME PLOTTED => 14:55

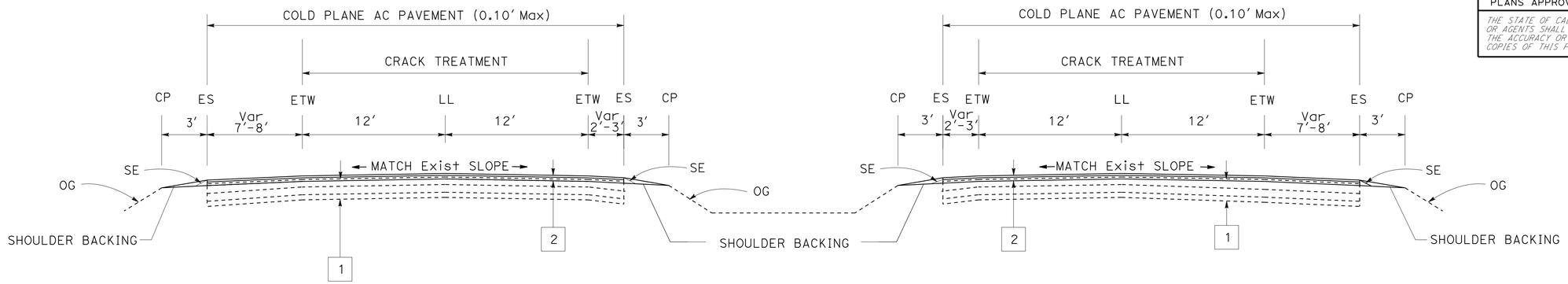
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 3 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

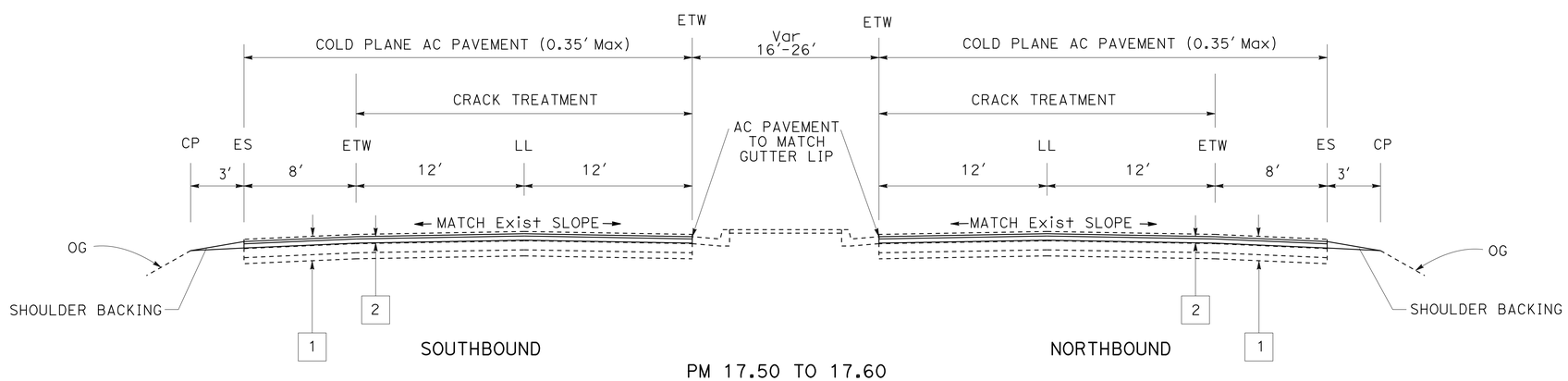
REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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




SOUTHBOUND NORTHBOUND

PM 17.60 TO 19.60




SOUTHBOUND NORTHBOUND

PM 17.50 TO 17.60

# TYPICAL CROSS SECTIONS

NO SCALE

**X- 2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT

REVISED BY | DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 05-SEP-2014 | TIME PLOTTED => 14:55

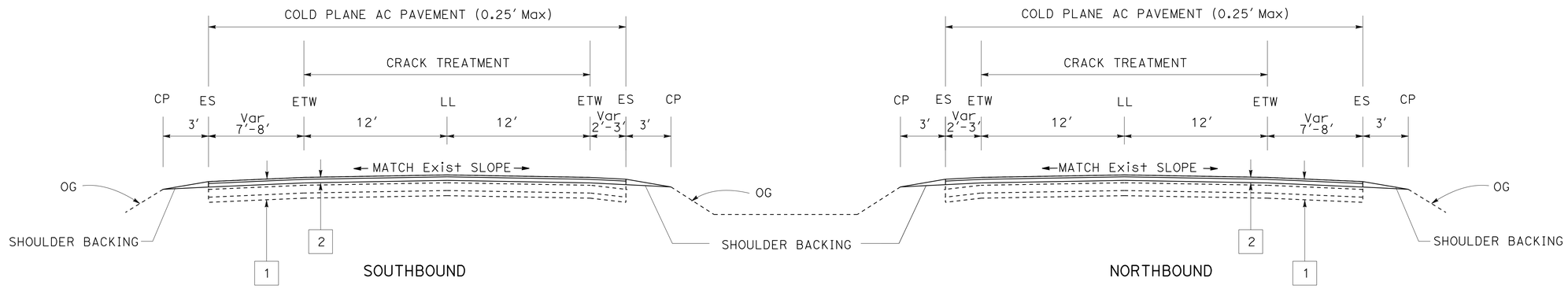
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 4 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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




PM 19.60 TO 20.90

# TYPICAL CROSS SECTIONS

NO SCALE

X-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT

REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 05-SEP-2014
00-00-00 | TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 5 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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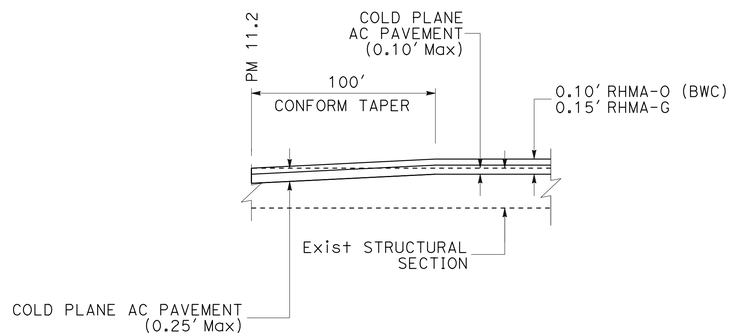
## NOTES:

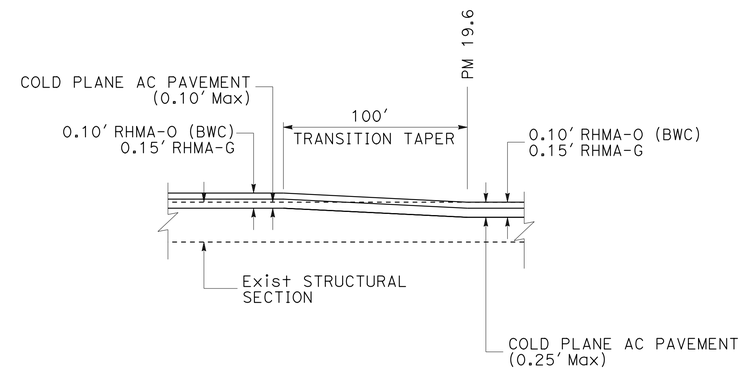
1. FOR LOCATIONS OF REPLACE ASPHALT CONCRETE SURFACING SEE SUMMARY OF QUANTITIES.
2. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

## ABBREVIATIONS:

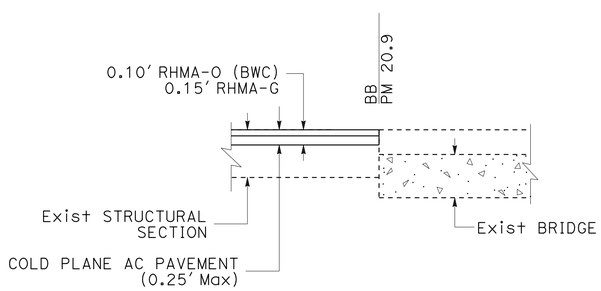
RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADED)
RHMA-O (BWC) - RUBBERIZED HOT MIX ASPHALT-OPEN GRADED (BONDED WEARING COURSE)
LL LANE LINE



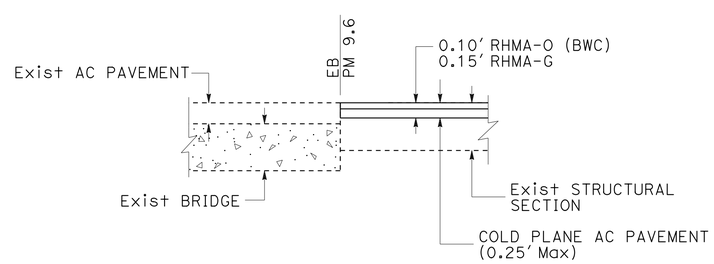

CONFORM TAPER ON MAINLINE
PM 11.2



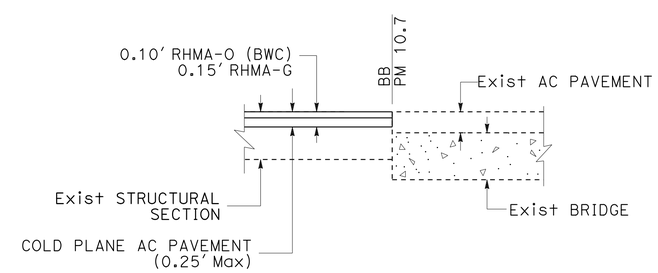

TRANSITION TAPER ON MAINLINE
PM 19.6




CONFORM AT ROBINSON CREEK BRIDGE




CONFORM AT HOPLAND OVERHEAD BRIDGE




CONFORM AT FELIZ CREEK BRIDGE

# CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN
FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 6 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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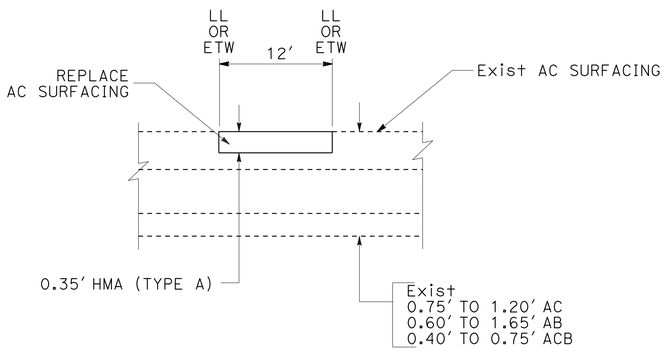
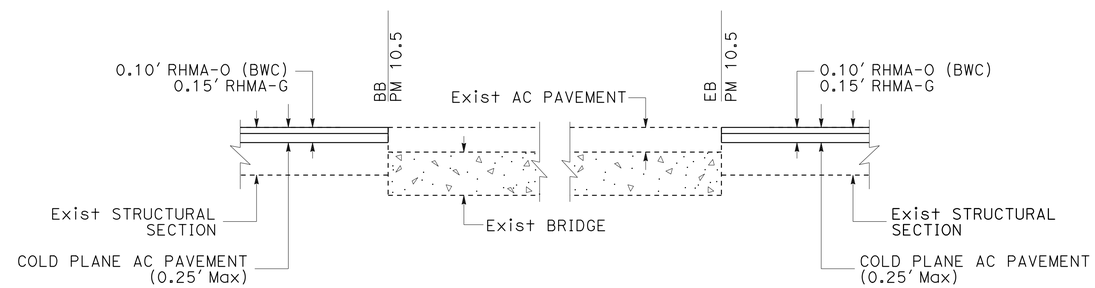
NOTE:

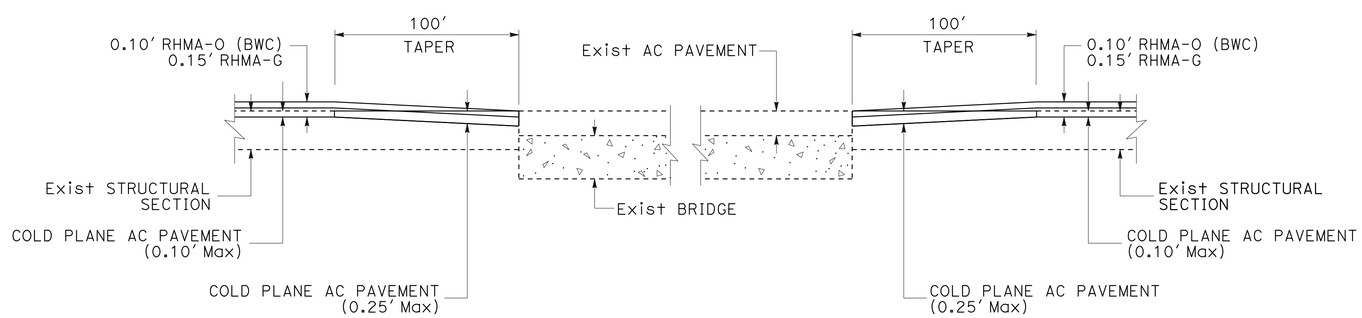
1. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.




REPLACE ASPHALT CONCRETE SURFACING




CONFORM AT ROSETTI CREEK BRIDGE




CONFORM TAPER AT McNAB CREEK BRIDGE
AND
CRAWFORD CREEK BRIDGE

# CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 7 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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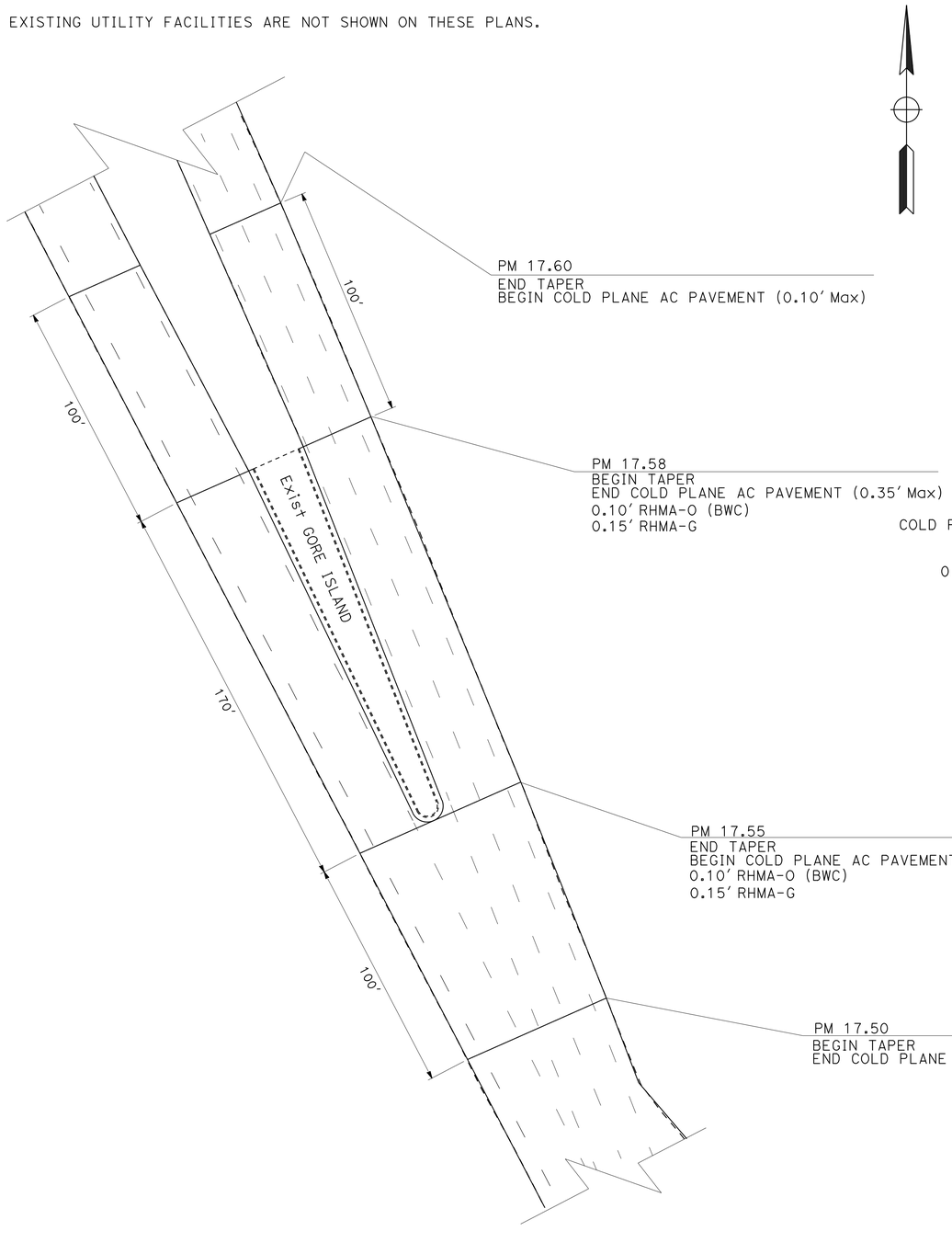
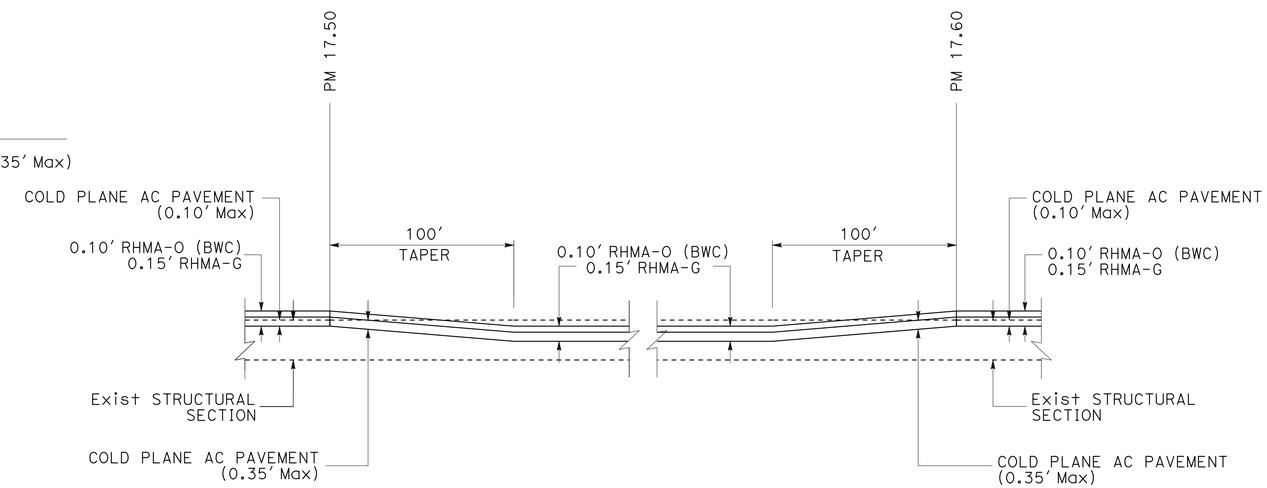
NOTE:

1. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.




TAPER AT GORE ISLAND

# CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 8 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gulalai Ahad No. 81803 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

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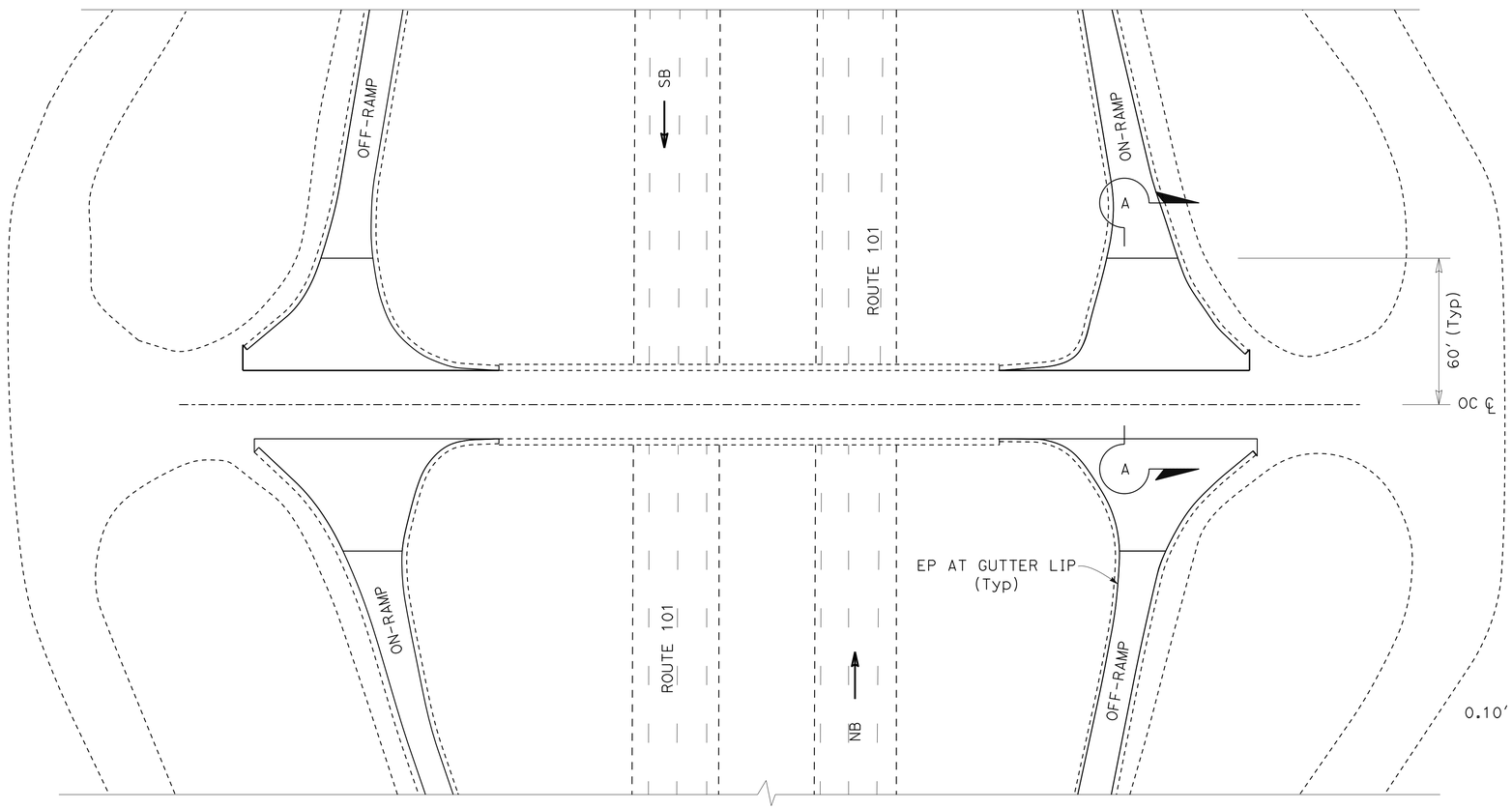
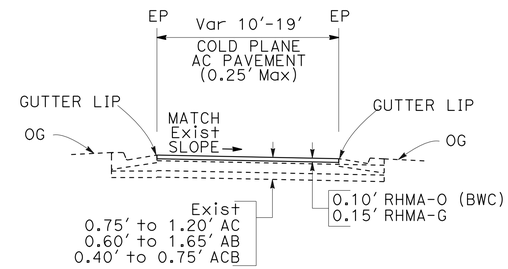
NOTE:

1. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



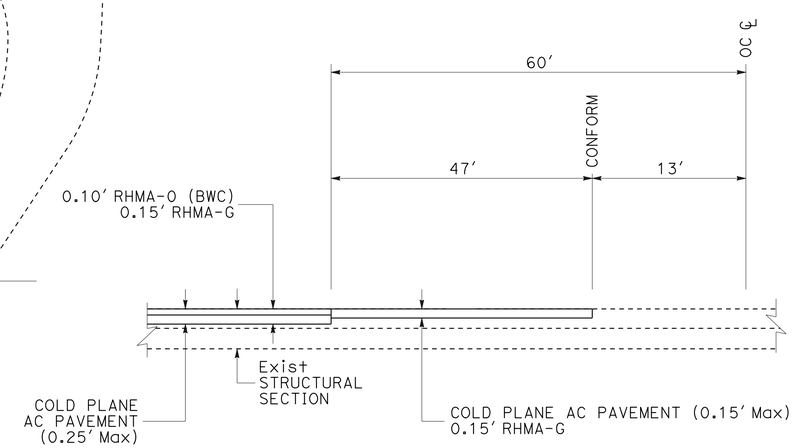

EL ROBLE OVERCROSSING (PM 19.68)

ROBINSON OVERCROSSING (PM 20.72)




RAMP

| | |
|---|---|
| NB PM 19.60 OFF-RAMP | SB PM 19.60 ON-RAMP |
| NB PM 19.68 ON-RAMP | SB PM 19.68 OFF-RAMP |
| NB PM 20.59 OFF-RAMP | SB PM 20.62 ON-RAMP |
| NB PM 20.72 ON-RAMP | SB PM 20.72 OFF-RAMP |




SECTION A-A

# CONSTRUCTION DETAILS

NO SCALE

C-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT

REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 9 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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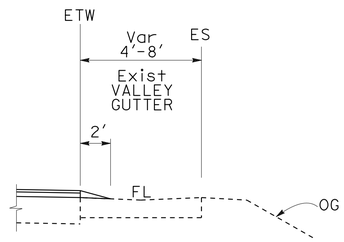
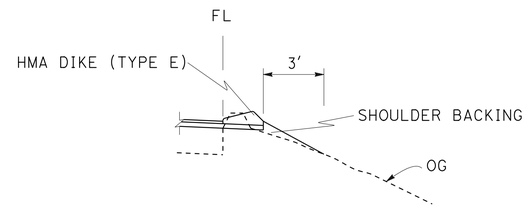
NOTE:

1. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

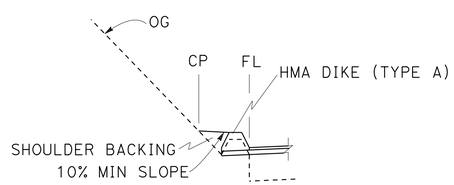



## PAVEMENT ADJACENT TO VALLEY GUTTER SHOULDERS

SB, PM 13.47 TO 13.66
SB, PM 13.81 TO 14.01
SB, PM 14.07 TO 14.09
SB, PM 14.81 TO 15.13
NB, PM 13.49 TO 13.69
NB, PM 13.84 TO 14.06
NB, PM 14.73 TO 15.04
NB, PM 15.32 TO 15.59

NB, PM 17.67 TO 17.89
NB, PM 18.05 TO 18.18
NB, PM 19.28 TO 19.45
NB, PM 19.89 TO 20.56




NB, PM 18.75 TO 19.14
NB, PM 19.56 TO 19.59
SB, PM 18.48 TO 18.80
SB, PM 19.07 TO 19.17
SB, PM 19.43 TO 19.59

# CONSTRUCTION DETAILS

NO SCALE

C-5

REVISED BY | DATE REVISED
GULALAI AHAD | FEREIDOON NEJABAT
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
TAREK TABSHOURI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 05-SEP-2014 | TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 10 | 32 |

REGISTERED CIVIL ENGINEER 5-19-14 DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gulalai Ahad No. 81803 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

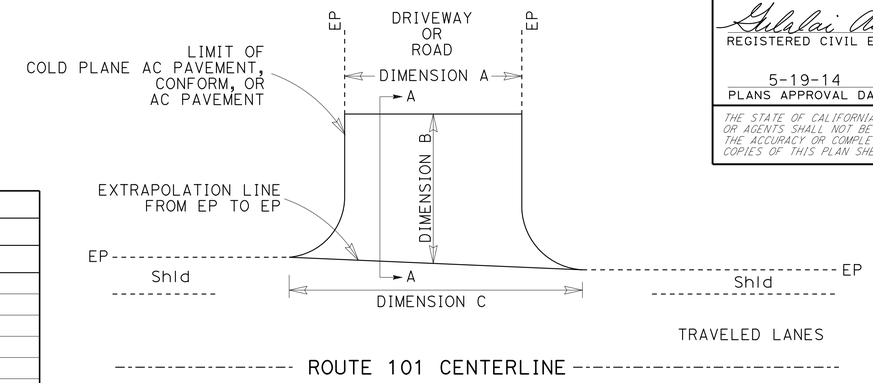
*THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.*

NOTE:

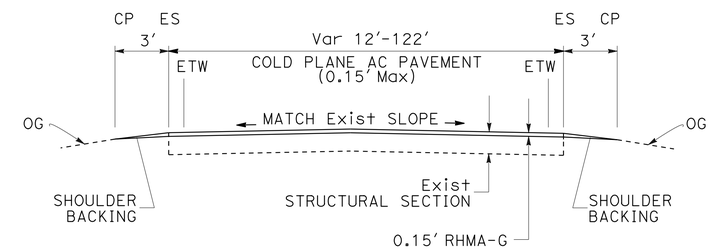
1. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

## DRIVEWAYS, ROADS, AND PULLOUT

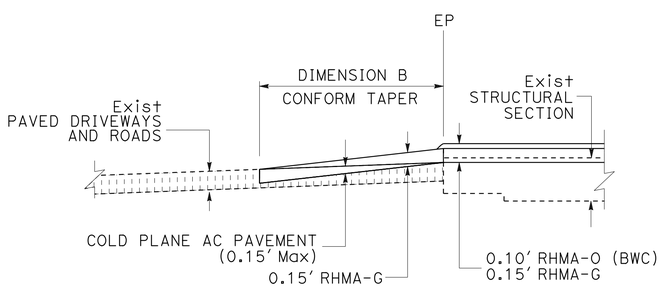
| LOCATION DESCRIPTION | DIRECTION | PM | DIMENSIONS A FT | B FT | C FT |
|---|---|---|---|---|---|
| MILANO FAMILY WINERY | SB | 9.82 | 36 | 25 | 150 |
| LA FRANCHI Rd (Rd 113) | SB | 9.87 | 21 | 36 | 136 |
| 13850 Hwy 101 | SB | 10.55 | 25 | 35 | 120 |
| 13100 Hwy 101 | SB | 11.18 | 18 | 30 | 96 |
| 13100 Hwy 101 | SB | 11.18 | 12 | 22 | 40 |
| 12910 Hwy 101 | SB | 11.63 | 17 | 46 | 185 |
| 12900 Hwy 101 | SB | 11.63 | 18 | 15 | 33 |
| LAURETTE Ln | SB | 11.63 | 21 | 35 | 155 |
| HEWLITT & STURTEVANT Rd | SB | 11.72 | 20 | 41 | 115 |
| ROAD 112A, JERIKO | SB | 12.04 | 17 | 48 | 140 |
| 11684 Hwy 101, SARACINA RANCH | SB | 12.50 | 15 | 67 | 87 |
| 11000 Hwy 101 | SB | 13.22 | 19 | 46 | 150 |
| LARGO Rd, JAXON KEYS, 10400 Hwy 101 | SB | 14.05 | 122 | 15 | 345 |
| CRAWFORD RANCH Rd | SB | 14.50 | 13 | 30 | 60 |
| ACCESS ROAD ALONG CRAWFORD CREEK | SB | 14.62 | 24 | 40 | 40 |
| 8600 Hwy 101 (AUSTIN) | SB | 15.32 | 20 | 41 | 190 |
| McNAB RANCH Rd | SB | 16.50 | 50 | 39 | 255 |
| 7800 Hwy101 | SB | 16.63 | 18 | 30 | 110 |
| NELSON Rd | SB | 17.25 | 26 | 30 | 120 |
| REAL GOODS SOLAR LIVING | NB | 10.61 | 45 | 47 | 137 |
| ACCESS Rd | NB | 11.22 | 77 | 13 | 114 |
| ACCESS Rd | NB | 11.63 | 20 | 28 | 145 |
| ROAD 112A | NB | 12.04 | 20 | 11 | 65 |
| ACCESS Rd | NB | 12.49 | 40 | 25 | 123 |
| LARGO Rd | NB | 14.05 | 19 | 11 | 37 |
| E CRAWFORD RANCH Rd | NB | 14.50 | 16 | 32 | 63 |
| HENRY STATION Rd | NB | 16.50 | 29 | 37 | 199 |
| ACCESS Rd | NB | 16.76 | 36 | 10 | 79 |
| NELSON Rd | NB | 17.25 | 21 | 15 | 79 |
| PULLOUT | NB | 17.50 | 123 | 27 | 290 |




GENERAL GEOMETRY (DRIVEWAYS AND ROADS)



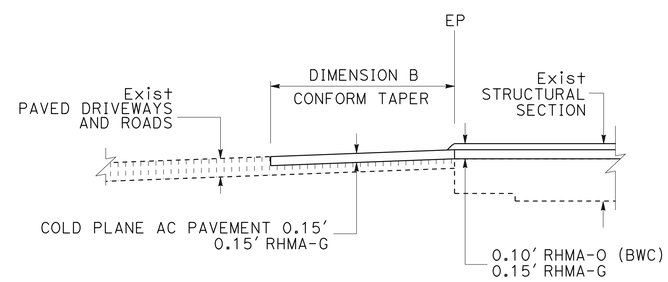

PAVED ROAD OR DRIVEWAY




CONFORM TAPER AT PAVED DRIVEWAYS AND ROADS

SECTION A-A

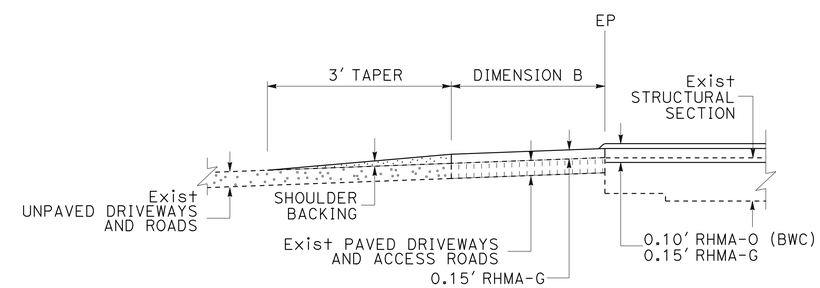
| | | | |
|---|---|---|---|
| NB PM 12.49 | SB PM 11.18 | SB PM 13.22 | SB PM 15.32 |
| NB PM 14.05 | SB PM 11.63 | SB PM 14.05 | SB PM 16.50 |
| NB PM 14.50 | SB PM 11.72 | SB PM 14.50 | SB PM 16.63 |
| NB PM 16.50 | SB PM 12.50 | SB PM 14.62 | SB PM 17.25 |




CONFORM AT PAVED DRIVEWAYS AND ROADS

SECTION A-A

SB PM 9.82
SB PM 9.87




OVERLAY AT DRIVEWAYS AND ROADS

SECTION A-A

| | | |
|---|---|---|
| NB PM 11.22 | NB PM 16.76 | SB PM 11.18 |
| NB PM 11.63 | NB PM 17.25 | |
| NB PM 12.49 | | |

# CONSTRUCTION DETAILS

NO SCALE

C-6

REVISED BY | DATE REVISED

GULALAI AHAD | FEREIDOON NEJABAT

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

03-DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 05-SEP-2014 | TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 11 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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

NOTES:

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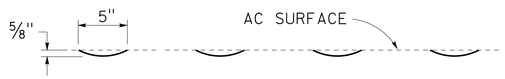
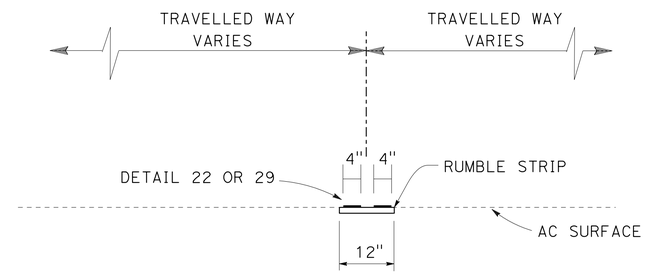
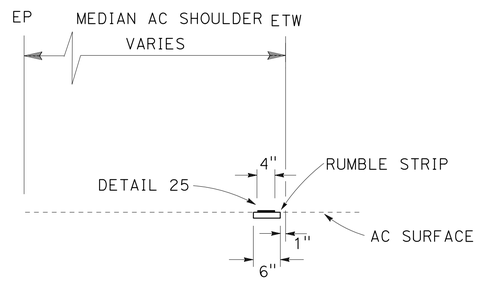
2. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



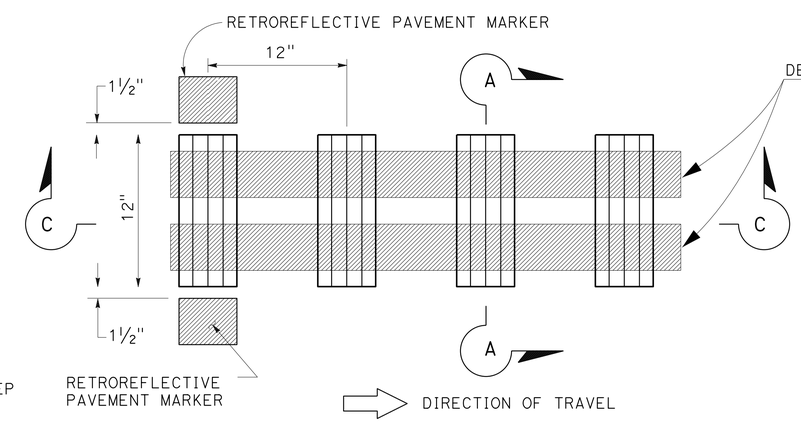

SECTION C-C



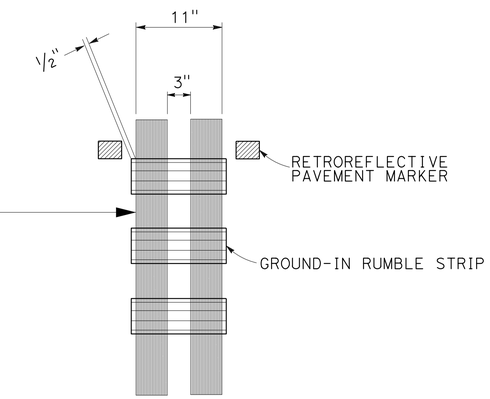

SECTION A-A



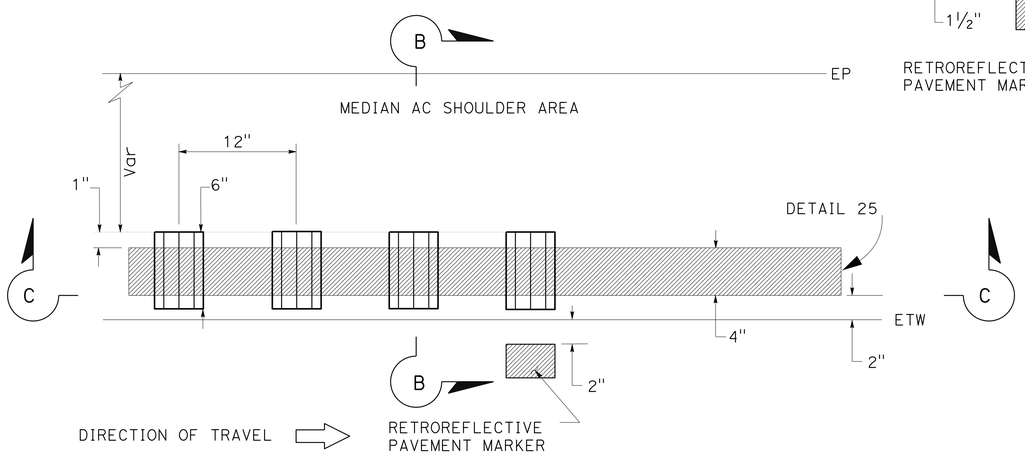

SECTION B-B




PLAN

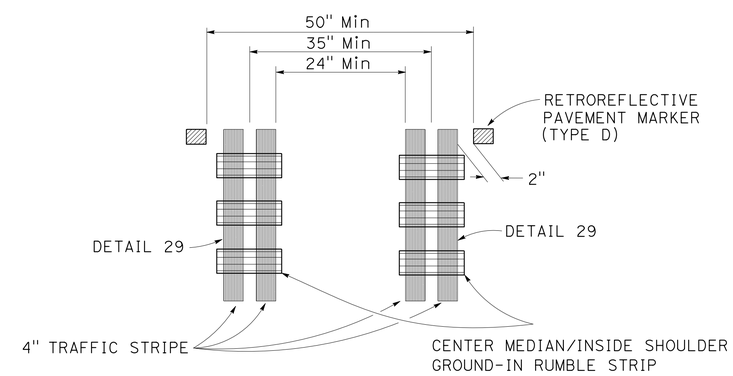



PLAN




PLAN

MODIFIED GROUND-IN RUMBLE STRIP/INSIDE SHOULDER AREA




CENTER MEDIAN/INSIDE SHOULDER AREA GROUND-IN RUMBLE STRIP

# CONSTRUCTION DETAILS

NO SCALE

C-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
03-DESIGN
Caltrans

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 12 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gulalai Ahad No. 81803 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

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

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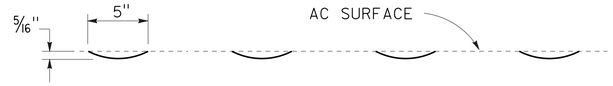
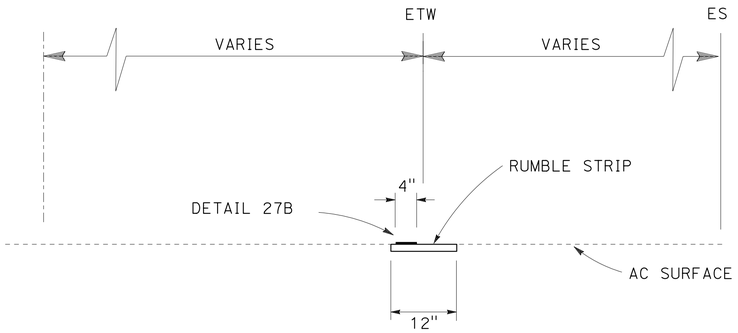
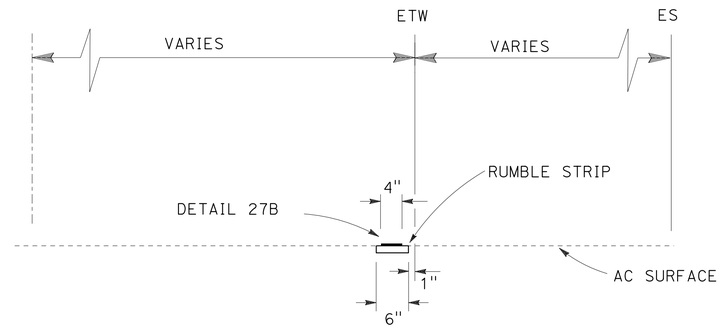


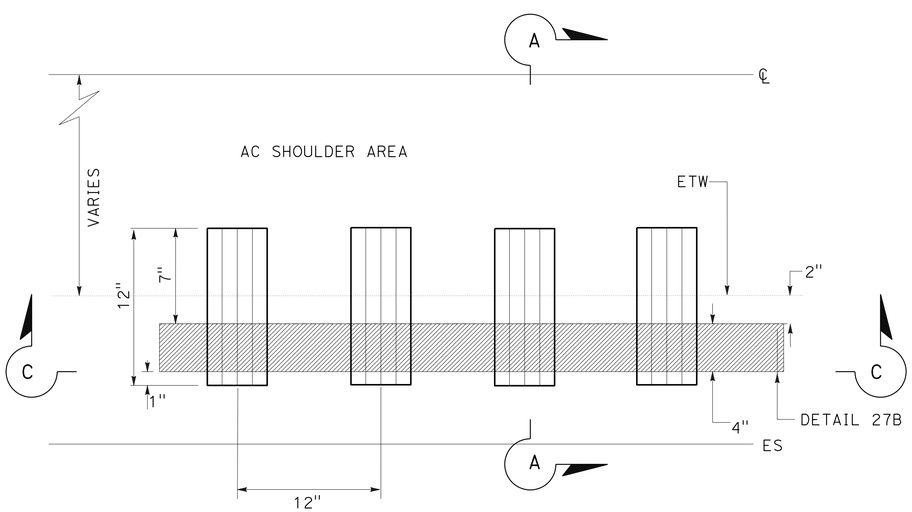

SECTION C-C



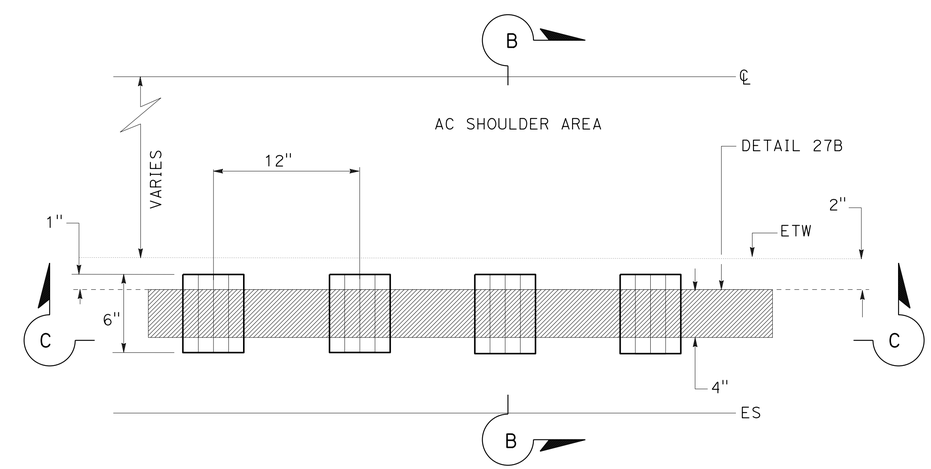

SECTION A-A




SECTION B-B




ALTERNATIVE #1 RIGHT SHOULDER
GROUND-IN RUMBLE STRIP
SHOULDER WIDTHS GREATER THAN OR EQUAL TO 5 FEET




ALTERNATIVE #2 RIGHT SHOULDER
GROUND-IN RUMBLE STRIP
SHOULDER WIDTHS LESS THAN 5 FEET

# CONSTRUCTION DETAILS

NO SCALE

C-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN
FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 13 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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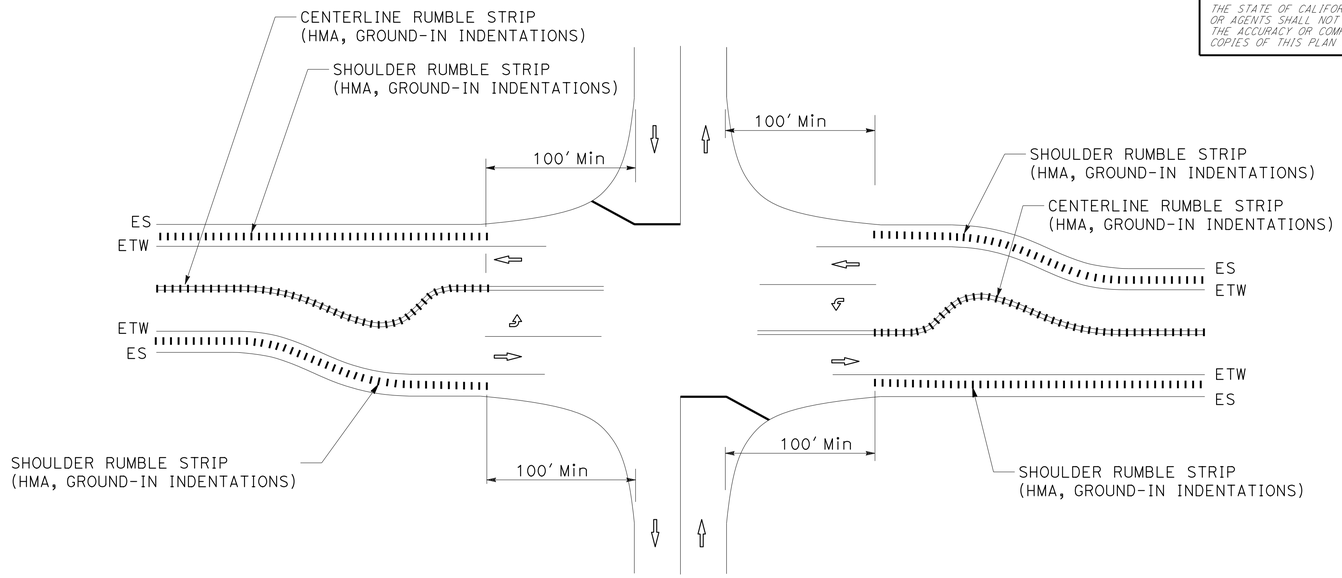
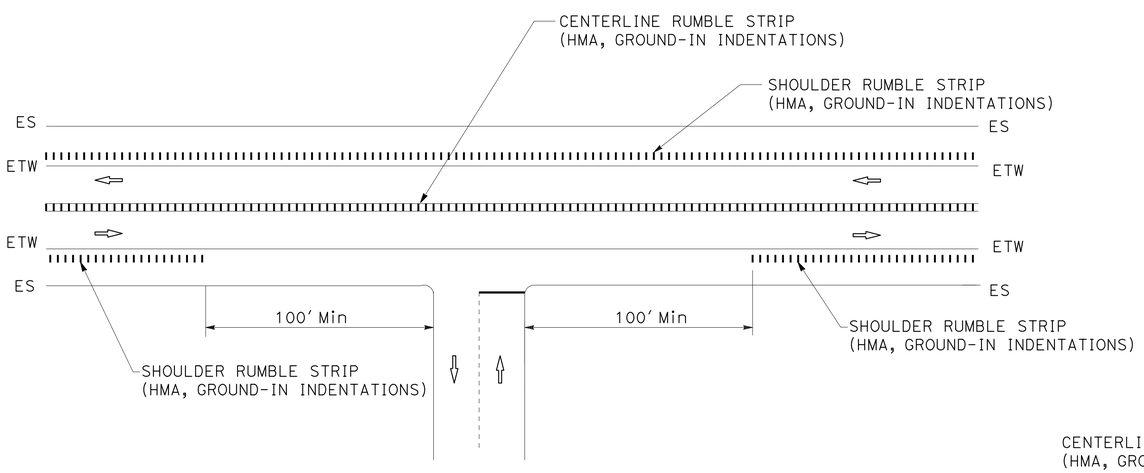
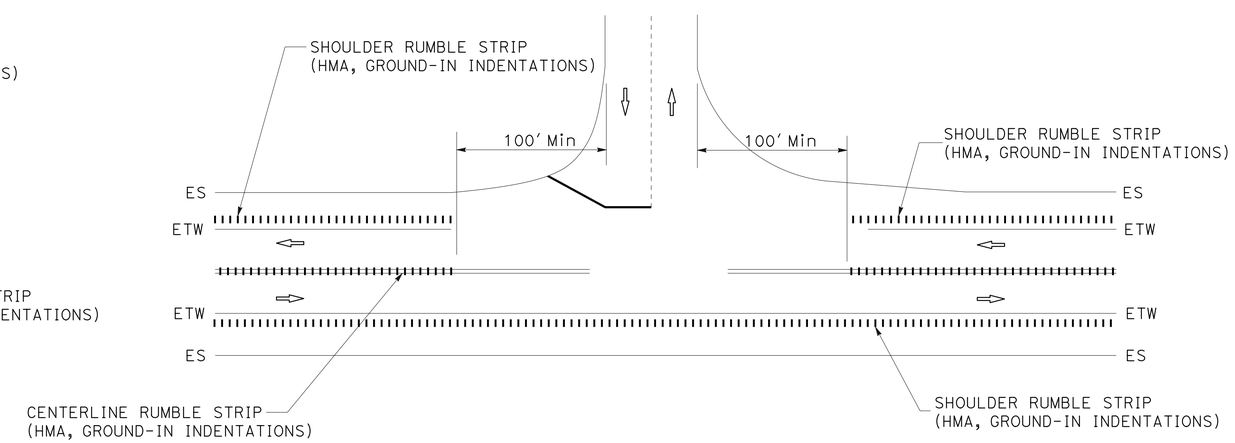



RUMBLE STRIPS AT INTERSECTIONS
WITH LEFT TURN POCKETS




RUMBLE STRIPS AT DRIVEWAYS/
PRIVATE ROAD APPROACHES




RUMBLE STRIPS AT INTERSECTIONS
WITHOUT LEFT TURN POCKETS

# CONSTRUCTION DETAILS

NO SCALE

C-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT

REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 14 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gulalai Ahad
No. 81803
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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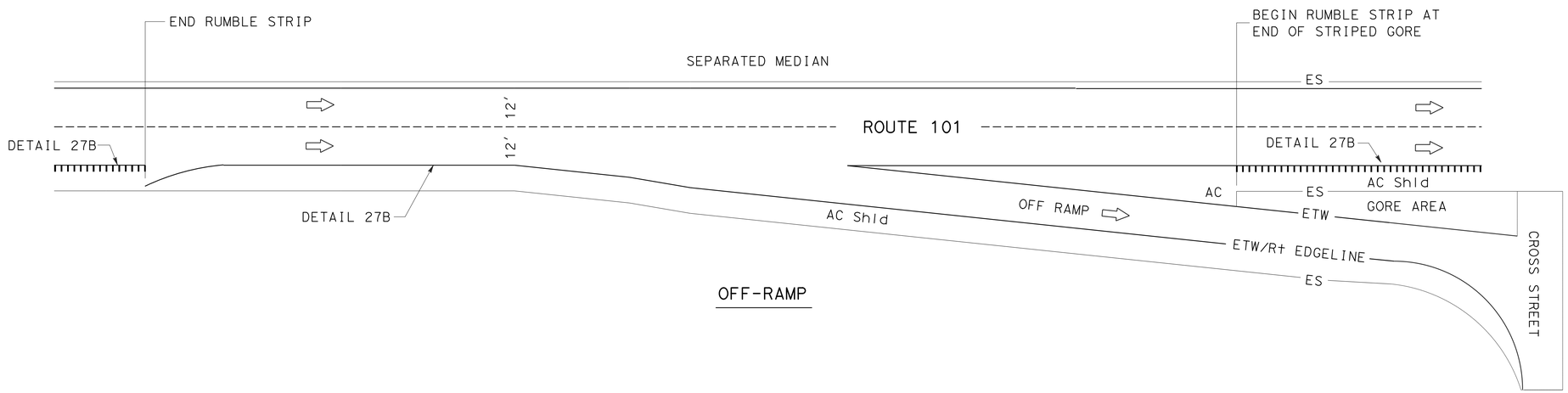
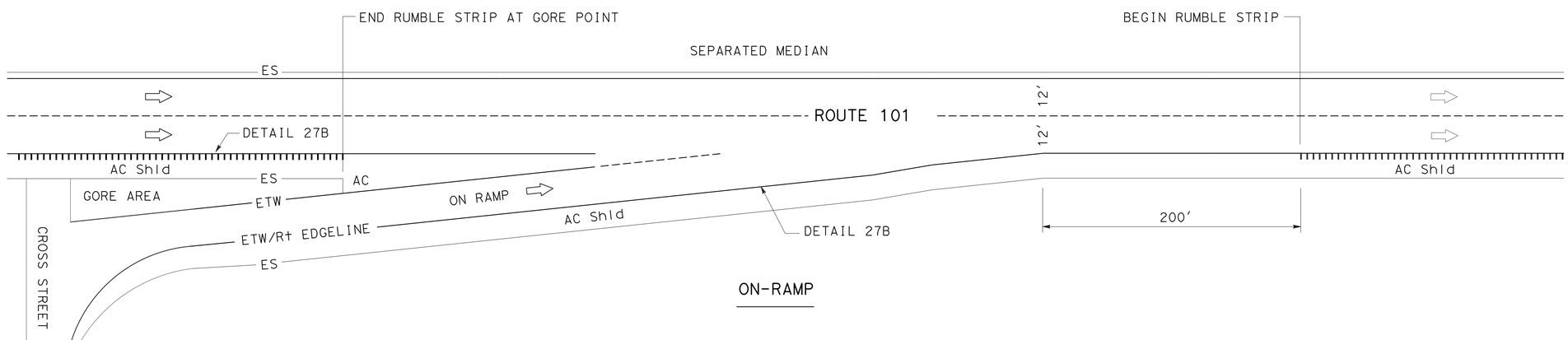
2. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.




OFF-RAMP




ON-RAMP

# CONSTRUCTION DETAILS

NO SCALE

C-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT

REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7<br>11.2/20.9 | 15 | 32 |

Kris M. Albers 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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# STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

| SIGN LOCATION AND DESCRIPTION | FACING TRAFFIC | | | | SIGN CODE | | SIGN MESSAGE | PANEL SIZE | NUMBER AND SIZE OF POST | NUMBER OF SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| | NB | SB | EB | WB | FEDERAL | CALIFORNIA | | | | |
| 500 FEET BEFORE BEGIN CONSTRUCTION - PM 9.49 | 1 | | | | | C40 | TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES | 108 " X 42" | 2-6"X6" | 1 |
| 250 FEET BEFORE BEGIN CONSTRUCTION - PM 9.54 | | 1 | | | G20-2 | | END ROAD WORK | 36" X 18" | 1-4"X4" | 1 |
| 250 FEET BEFORE BEGIN CONSTRUCTION - PM 9.54 | 1 | | | | G20-1 | | ROAD WORK NEXT 11 MILES | 60" X 36" | 2-4"X6" | 1 |
| PM 9.64 | 1 | | | | W11-1<br>W16-1 | | BICYCLE SYMBOL<br>SHARE THE ROAD | 36" X 36"<br>24" X 30" | 1-4"X6" | 1 |
| LA FRANCHI ROAD - PM 9.87 | | | 1 | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| ROUTE 175/RIVER ROAD - PM 10.81 | | | | 1 | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| CENTER DRIVE - PM 11.02 | | | 1 | 1 | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 2 |
| FIRST STREET - PM 11.07 | | | 1 | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| HEWLITT STURTEVANT ROAD - PM 11.71 | | | 1 | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| ROAD 112A - PM 12.00 | | | 1 | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| HENRY STATION ROAD - PM 16.49 | | | | 1 | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| NELSON ROAD - PM 17.24 | | | 1 | 1 | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 2 |
| | | | | | | | | | | |
| EL ROBLE OC SB ON RAMP | | | | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| EL ROBLE OC NB ON RAMP | | | | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| ROBINSON OC SB ON RAMP | | | | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| ROBINSON OC NB ON RAMP | | | | | W20-1 | | ROAD WORK AHEAD | 36" X 36" | 1-4"X6" | 1 |
| | | | | | | | | | | |
| PM 20.85 | | 1 | | | W11-1<br>W16-1 | | BICYCLE SYMBOL<br>SHARE THE ROAD | 36" X 36"<br>24" X 30" | 1-4"X6" | 1 |
| 250 FEET AFTER END CONSTRUCTION - PM 20.95 | 1 | | | | | C14 | END ROAD WORK | 48" X 24" | 1-4"X6" | 1 |
| 250 FEET AFTER END CONSTRUCTION - PM 20.95 | | 1 | | | G20-1 | | ROAD WORK NEXT 11 MILES | 90" X 48" | 2-6"X6" | 1 |
| 500 FEET AFTER END CONSTRUCTION - PM 21.00 | | 1 | | | | C40 | TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES | 144" X 60" | 2-6"X8" | 1 |

NOTE:

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

## CONSTRUCTION AREA SIGNS

CS-1

REVISED BY | DATE REVISED
KRIS ALBERS | JACK KEMMERLY
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
SERGIO ACEVES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 03-TRAFFIC

LAST REVISION 05-06-14 | DATE PLOTTED => 05-SEP-2014 | TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7<br>11.2/20.9 | 16 | 32 |

Kris M. Albers 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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## PAVEMENT DELINEATION QUANTITIES

| POST MILE | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) | | | | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 36-12) | | | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 12-3) | 8" THERMOPLASTIC TRAFFIC STRIPE (EWNV) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DETAIL NUMBER | | | | DETAIL NUMBER | | | DETAIL NUMBER | DETAIL NUMBER | |
| | 19 | 22 | 25 | 27B | 6 | 11 | 19 | 27C | 36 | 38 |
| | LF | LF | LF | LF | LF | LF | LF | LF | LF | LF |
| 9.602 - 10.651 | | 11,225 | | 11,225 | | | | | | |
| 11.202 - 11.607 | | 4300 | | 4300 | | | | | | |
| 11.607 - 11.622 | | 158 | | 79 | | | | | | |
| 11.622 - 11.696 | | 781 | | 781 | | | | | | |
| 11.705 - 11.708 | | 32 | | | | | | | | |
| 11.708 - 11.992 | | 3000 | | 3000 | | | | | | |
| 11.992 - 11.995 | | 32 | | 32 | | | | | | |
| 11.995 - 12.005 | | | | 53 | | | | | | |
| 12.005 - 12.013 | | 84 | | 42 | | | | | | |
| 12.013 - 12.032 | | 200 | | 200 | | | | | | |
| 12.032 - 12.292 | | | | 2746 | 1373 | | | | | |
| 12.292 - 12.477 | 977 | | | 1954 | | | 977 | | | |
| 12.477 - 13.115 | | 6737 | | 6737 | | | | | | |
| 13.115 - 13.184 | | 1457 | | 728 | | | | | | |
| 13.184 - 13.200 | | 168 | | 169 | | | | | | |
| 13.200 - 13.218 | | 190 | | 190 | | | | | | |
| 13.218 - 13.229 | | | | 58 | | | | | | |
| 13.229 - 13.240 | | 116 | | 116 | | | | | | |
| 13.240 - 13.278 | | 800 | | 400 | | | | | | 200 |
| 13.278 - 13.403 | | 1320 | | 1320 | | | | | | |
| 13.403 - 13.472 | | 728 | | 728 | | 364 | | | | |
| 13.472 - 13.981 | | 5353 | | 5353 | | 5353 | | | | |
| 13.981 - 14.044 | | 665 | | 665 | | 665 | | | | |
| 14.044 - 14.081 | 195 | | | 391 | | | 195 | | | |
| 14.081 - 14.654 | 3025 | | | 6050 | | | 3025 | | | |
| 14.654 - 14.739 | | 898 | | 898 | | | | | | |
| 14.739 - 14.870 | | 1383 | | 1383 | | 691 | | | | |
| 14.870 - 15.547 | | 3575 | | 3575 | | 3575 | | | | |
| 15.547 - 15.638 | 480 | | | 960 | | 480 | 480 | | | |
| 15.638 - 15.697 | 311 | | | 622 | | | 311 | | | |
| 15.697 - 16.291 | | | | 6273 | 3136 | | | | | |
| 16.291 - 16.365 | 391 | | | 781 | | | 391 | | | |
| 16.365 - 16.407 | | 444 | | 444 | | | | | | |
| 16.407 - 16.455 | | 1014 | | 507 | | | | | | |
| 16.455 - 16.484 | | 306 | | 306 | | | | | | 153 |
| SHEET TOTAL | 5379 | 44,966 | 0 | 63,066 | 4509 | 11,128 | 5379 | 0 | 0 | 353 |

# PAVEMENT DELINEATION QUANTITIES

**PDQ-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-TRAFFIC

FUNCTIONAL SUPERVISOR: SERGIO ACEVES
CALCULATED-DESIGNED BY: KRIS ALBERS
CHECKED BY: JACK KEMMERLY
REVISED BY
DATE REVISED

LAST REVISION 05-06-14
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7<br>11.2/20.9 | 17 | 32 |

Kris M. Albers 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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

# PAVEMENT DELINEATION QUANTITIES

| POST MILE | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) | | | | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 36-12) | | | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 12-3) | 8" THERMOPLASTIC TRAFFIC STRIPE (EWNV) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DETAIL NUMBER | | | | DETAIL NUMBER | | | DETAIL NUMBER | DETAIL NUMBER | |
| | 19 | 22 | 25 | 27B | 6 | 11 | 19 | 27C | 36 | 38 |
| | LF | LF | LF | LF | LF | LF | LF | LF | LF | LF |
| 16.495 - 16.523 | | 296 | | 296 | | | | | | 148 |
| 16.523 - 16.533 | | 106 | | 106 | | | | | | |
| 16.533 - 16.587 | | 1140 | | 570 | | | | | | |
| 16.587 - 16.618 | | 327 | | 327 | | | | | | |
| 16.618 - 16.694 | 401 | | | | | | 401 | 802 | | |
| 16.694 - 17.318 | | | | 3589 | 3295 | | | | | |
| 17.318 - 17.381 | 333 | | | 666 | | | 333 | | | |
| 17.381 - 17.442 | | 644 | | 644 | | | | | | |
| 17.442 - 17.455 | | 138 | | 69 | | | | | | |
| 17.455 - 17.486 | | 328 | | 164 | | 164 | | | | |
| 17.486 - 19.542 | | | 10,856 | 10,856 | | 10,856 | | | | |
| 19.542 - 19.591 | | | 259 | | | 259 | | | 517 | |
| 19.591 - 19.682 | | | 960 | 975 | | 480 | | | | |
| 19.682 - 19.796 | | | 1195 | 1208 | | 602 | | | | |
| 19.796 - 19.818 | | | 116 | 116 | | 116 | | | | |
| 19.818 - 19.841 | | | 121 | 121 | | 121 | | | | |
| 19.841 - 20.556 | | | 3775 | 3775 | | 3775 | | | | |
| 20.556 - 20.609 | | | 280 | 560 | | 280 | | | 560 | |
| 20.609 - 20.711 | | | 1065 | 1060 | | 539 | | | | |
| 20.711 - 20.807 | | | 948 | 975 | | 507 | | | | |
| 20.807 - 20.830 | | | 121 | 242 | | 121 | | | | |
| 20.830 - 20.848 | | | 95 | 95 | | 95 | | | | |
| 20.848 - 20.900 | | | 275 | 275 | | 275 | | | | |
| 17.483 - 17.559 | | | 400 | 400 | | | | | | |
| 17.559 - 19.559 | | | 10,560 | 10,560 | | 10,500 | | | | |
| 19.559 - 19.578 | | | 100 | 100 | | 100 | | | | |
| 19.578 - 19.597 | | | 100 | 200 | | 100 | | | | 100 |
| 19.597 - 19.681 | | | 890 | 890 | | 445 | | | | |
| 19.685 - 19.823 | | | 1456 | 1456 | | 728 | | | | |
| 19.823 - 19.878 | | | 290 | 290 | | 290 | | | | 580 |
| 19.878 - 20.574 | | | 3675 | 3675 | | 3675 | | | | |
| 20.574 - 20.594 | | | 106 | 106 | | 106 | | | | |
| 20.594 - 20.622 | | | 148 | 296 | | 148 | | | | 148 |
| 20.622 - 20.709 | | | 920 | 920 | | 480 | | | | |
| 20.722 - 20.825 | | | 1088 | 1088 | | 544 | | | | |
| 20.825 - 20.880 | | | 290 | 290 | | 290 | | | | 580 |
| 20.880 - 20.907 | | | 143 | 143 | | 143 | | | | |
| SHEET TOTAL | 734 | 2,979 | 40,232 | 47,103 | 3295 | 35,739 | 734 | 802 | 1077 | 1556 |
| SHEET TOTAL FROM PDQ-1 | 5379 | 44,966 | 0 | 63,066 | 4509 | 11,128 | 5379 | 0 | 0 | 353 |
| SUBTOTAL | 6113 | 47,945 | 40,232 | 110,169 | 7804 | 46,867 | 6113 | 802 | 1077 | 1909 |
| TOTAL | 204,459 | | | | 60,784 | | | 802 | 2986 | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-TRAFFIC

FUNCTIONAL SUPERVISOR: SERGIO ACEVES
CALCULATED-DESIGNED BY: KRIS ALBERS
CHECKED BY: JACK KEMMERLY
REVISED BY
DATE REVISED

# PAVEMENT DELINEATION QUANTITIES

PDQ-2

LAST REVISION 05-06-14
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7<br>11.2/20.9 | 18 | 32 |

Kris M. Albers 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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

## PAVEMENT MARKER

| DETAIL NUMBER | RETROREFLECTIVE | | | |
|---|---|---|---|---|
| | TYPE A | TYPE D | TYPE G | TYPE H |
| | EA | EA | EA | EA |
| 6, 19, 22 | | 2293 | | |
| 13 | 3906 | | | |
| 13, 36, 38 | | | 1105 | |
| 19, 25 | | | | 1096 |
| SUBTOTAL | 3906 | 2293 | 1105 | 1096 |
| TOTAL | 8400 | | | |

NOTE: DETAIL 13 SHALL BE PLACED ON DETAIL 11.

## THERMOPLASTIC PAVEMENT MARKING (EWNV)

| DESCRIPTION | NUMBER | SQFT |
|---|---|---|
| TYPE I ARROW | 1 | 22 |
| TYPE III ARROW | 5 | 210 |
| TYPE V ARROW | 8 | 264 |
| TYPE VI ARROW | 12 | 504 |
| "STOP" | 1 | 22 |
| LIMIT LINE | 6 | 244 |
| TOTAL | | 1266 |

EWNV: ENHANCED WET NIGHT VISIBILITY

# PAVEMENT DELINEATION QUANTITIES

PDQ-3

REVISED BY | DATE REVISED
KRIS ALBERS | JACK KEMMERLY
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
SERGIO ACEVES
Caltrans
03-TRAFFIC

LAST REVISION 05-30-14 | DATE PLOTTED => 05-SEP-2014 | TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 19 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gulalai Ahad No. 81803 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

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

## DIKE TABLE

| DIRECTION | POST MILE FROM | POST MILE TO | REMOVE ASPHALT CONCRETE DIKE | PLACE HMA DIKE (TYPE A) | PLACE HMA DIKE (TYPE E) | * MINOR HMA |
|---|---|---|---|---|---|---|
| | | | LF | LF | LF | TON |
| SB | 17.51 | 17.61 | 520 | - | 520 | 13 |
| SB | 18.48 | 18.80 | 1,620 | 1,650 | - | 44 |
| SB | 19.07 | 19.17 | 500 | 530 | - | 14 |
| SB | 19.43 | 19.59 | 830 | 830 | - | 22 |
| NB | 17.67 | 17.89 | 1,050 | - | 1,050 | 27 |
| NB | 18.05 | 18.18 | 710 | - | 710 | 18 |
| NB | 18.75 | 19.14 | 2,060 | 2,060 | - | 54 |
| NB | 19.28 | 19.45 | 900 | - | 900 | 23 |
| NB | 19.56 | 19.59 | 170 | 170 | - | 4 |
| NB | 19.89 | 20.56 | 3,560 | - | 3,560 | 91 |
| SUBTOTAL | | | 11,920 | 5,240 | 6,740 | 310 |
| TOTAL | | | 11,920 | 5,240 | 6,740 | - |

* SEE ROADWAY QUANTITIES SUMMARY TABLE FOR PROJECT TOTALS

## DRIVEWAYS, ROADS, AND PULLOUT

| LOCATION | DIRECTION | POST MILE | * RHMA (GAP GRADED) |
|---|---|---|---|
| | | | TON |
| MILANO FAMILY WINERY | SB | 9.82 | 18 |
| LA FRANCHI Rd (Rd 113) | SB | 9.87 | 18 |
| 13850 Hwy 101 | SB | 10.55 | 17 |
| 13100 Hwy 101 (1st Dwy) | SB | 11.18 | 12 |
| 13100 Hwy 101 (2nd Dwy) | SB | 11.18 | 6 |
| 12910 Hwy 101 | SB | 11.63 | 19 |
| 12900 Hwy 101 | SB | 11.63 | 5 |
| LAURETTE Ln | SB | 11.63 | 19 |
| HEWLITT & STURTEVANT Rd | SB | 11.72 | 20 |
| ROAD 112A, JERIKO | SB | 12.04 | 24 |
| 11684 Hwy 101, SARACINA RANCH | SB | 12.50 | 21 |
| 11000 Hwy 101 | SB | 13.22 | 22 |
| 10400 Hwy 101 (LARGO Rd, JAXON KEYS) | SB | 14.05 | 39 |
| CRAWFORD RANCH Rd | SB | 14.50 | 9 |
| ACCESS Rd ALONG CRAWFORD CREEK | SB | 14.62 | 11 |
| 8600 Hwy 101 (AUSTIN) | SB | 15.32 | 27 |
| McNAB RANCH Rd | SB | 16.50 | 36 |
| 7800 Hwy 101 | SB | 16.63 | 12 |
| NELSON Rd | SB | 17.25 | 18 |
| REAL GOODS SOLAR LIVING | NB | 10.61 | 38 |
| ACCESS Rd | NB | 11.22 | 14 |
| ACCESS Rd | NB | 11.63 | 14 |
| ROAD 112A | NB | 12.04 | 5 |
| ACCESS Rd | NB | 12.49 | 19 |
| LARGO Rd | NB | 14.05 | 3 |
| E CRAWFORD RANCH Rd | NB | 14.50 | 11 |
| HENRY STATION Rd | NB | 16.50 | 25 |
| ACCESS Rd | NB | 16.76 | 6 |
| NELSON Rd | NB | 17.25 | 7 |
| PULLOUT | NB | 17.50 | 60 |
| | | SUBTOTAL | 555 |

* SEE ROADWAY QUANTITIES SUMMARY TABLE FOR PROJECT TOTALS

## ROADWAY QUANTITIES SUMMARY TABLE

| LOCATION | DIRECTION | POST MILE OR DESCRIPTION FROM | POST MILE OR DESCRIPTION TO | RHMA (GAP GRADED) | RHMA-OPEN GRADED (BONDED WEARING COURSE) | TACK COAT | CRACK TREATMENT | MINOR HMA |
|---|---|---|---|---|---|---|---|---|
| | | | | TON | TON | TON | LNMI | TON |
| ROUTE 101 | NB/SB | 9.60 | 10.65 | 1,876 | 979 | 18 | 2.2 | - |
| | NB/SB | 11.20 | 17.55 | 14,839 | 7,629 | 135 | 14.8 | - |
| | NB | 17.55 | 20.90 | 6,698 | 3,493 | 62 | 7.0 | - |
| | SB | 17.55 | 20.90 | 6,862 | 3,579 | 63 | 7.0 | - |
| BURKE HILL OPAS | NB | OFF-RAMP | | 144 | 75 | 1 | 0.2 | - |
| | SB | ON-RAMP | | 131 | 68 | 1 | 0.2 | - |
| | NB | ON-RAMP | | 150 | 78 | 1 | 0.2 | - |
| | SB | OFF-RAMP | | 187 | 98 | 1 | 0.2 | - |
| COX SCHRADER ROAD | NB | OFF-RAMP | | 156 | 81 | 1 | 0.2 | - |
| | SB | ON-RAMP | | 133 | 70 | 1 | 0.2 | - |
| | NB | ON-RAMP | | 118 | 61 | 1 | 0.2 | - |
| | SB | OFF-RAMP | | 152 | 80 | 1 | 0.2 | - |
| SUBTOTAL | | | | 31,446 | 16,290 | 286 | | |
| SUBTOTAL (DRIVEWAYS, ROADS, AND PULLOUT) | | | | 555 | 252 | 2 | - | - |
| SUBTOTAL (DIKE TABLE) | | | | - | - | - | - | 310 |
| TOTAL | | | | 32,001 | 16,542 | 288 | 32.6 | 310 |

# SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® 03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 15:23

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 20 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gulalai Ahad No. 81803 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

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

## COLD PLANE ASPHALT CONCRETE PAVEMENT (PAVED DRIVEWAYS AND ROADS)

| LOCATION | DIRECTION | POST MILE | | * COLD PLANE AC PAVEMENT |
|---|---|---|---|---|
| | | FROM | TO | SQYD |
| MILANO FAMILY WINERY Dwy | SB | 9.83 | 9.86 | 185 |
| LA FRANCHI Rd | SB | 9.87 | 9.90 | 186 |
| 13850 Hwy 101, Dwy | SB | 10.54 | 10.57 | 172 |
| 13771 S Hwy 101, REAL GOODS SOLAR LIVING CENTER, Dwy | NB | 10.60 | 10.64 | 381 |
| 13100 Hwy 101, Dwy | SB | 11.21 | 11.22 | 60 |
| 12910 Hwy 101, Dwy | SB | 11.53 | 11.57 | 195 |
| LAURELLE Ln | SB | 11.61 | 11.64 | 190 |
| ACCESS Rd | NB | 11.62 | 11.65 | 150 |
| HEWLITT & STURTEVANT Rd | SB | 11.70 | 11.72 | 200 |
| RD112A, JENKO | SB | 12.03 | 12.06 | 240 |
| RD112A | NB | 12.04 | 12.05 | 52 |
| ACCESS Rd | NB | 12.47 | 12.50 | 195 |
| LARGO Rd, 10400 Hwy 101, JAXON KEYS | SB | 14.01 | 14.08 | 400 |
| LARGO Rd | NB | 14.04 | 14.04 | 30 |
| E CRAWFORD RANCH Rd | NB | 14.50 | 14.51 | 112 |
| CRAWFORD RANCH Rd | SB | 14.50 | 14.51 | 95 |
| ACCESS Rd | SB | 14.63 | 14.64 | 115 |
| 8600 Hwy 101 (AUSTIN) | SB | 15.31 | 15.35 | 275 |
| McNAB RANCH Rd | SB | 16.47 | 16.52 | 370 |
| HENRY STATION RANCH Rd | NB | 16.48 | 16.52 | 255 |
| 7800 Hwy 101, Dwy | SB | 16.59 | 16.61 | 120 |
| NELSON Rd | SB | 17.24 | 17.26 | 180 |
| SUBTOTAL (PAVED DRIVEWAYS AND ROADS) | | | | 4,158 |

* SEE COLD PLANE ASPHALT CONCRETE PAVEMENT TABLE FOR PROJECT TOTALS

## COLD PLANE ASPHALT CONCRETE PAVEMENT (RAMPS)

| LOCATION | | DIRECTION | LENGTH | * COLD PLANE AC PAVEMENT |
|---|---|---|---|---|
| | | | FT | SQYD |
| EL ROBLE OC | OFF-RAMP NB (BURKE HILL OPAS) | NB | 870 | 1,450 |
| | ON-RAMP SB (BURKE HILL OPAS) | SB | 830 | 1,330 |
| | ON-RAMP NB (BURKE HILL OPAS) | NB | 920 | 1,520 |
| | OFF-RAMP SB (BURKE HILL OPAS) | SB | 1,030 | 1,890 |
| ROBINSON OC | OFF-RAMP NB (COX SCHRADER Rd) | NB | 880 | 1,570 |
| | ON-RAMP SB (COX SCHRADER Rd) | SB | 820 | 1,350 |
| | ON-RAMP NB (COX SCHRADER Rd) | NB | 810 | 1,190 |
| | OFF-RAMP SB (COX SCHRADER Rd) | SB | 1,960 | 1,540 |
| SUBTOTAL (RAMPS) | | | | 11,840 |

* SEE COLD PLANE ASPHALT CONCRETE PAVEMENT TABLE FOR PROJECT TOTALS

## COLD PLANE ASPHALT CONCRETE PAVEMENT TABLE

| LOCATION | DIRECTION | POST MILE | | COLD PLANE ASPHALT CONCRETE PAVEMENT |
|---|---|---|---|---|
| | | FROM | TO | SQYD |
| ROUTE 101 | NB/SB | 9.60 | 10.65 | 18,942 |
| ROUTE 101 | NB/SB | 11.20 | 11.21 | 497 |
| ROUTE 101 | NB/SB | 11.21 | 14.60 | 73,480 |
| ROUTE 101, BEGIN 100' SOUTH OF CRAWFORD CREEK BRIDGE | NB/SB | 14.60 | 14.62 | 410 |
| ROUTE 101, END 100' NORTH OF CRAWFORD CREEK BRIDGE | NB/SB | 14.62 | 14.64 | 410 |
| ROUTE 101 | NB/SB | 14.64 | 15.91 | 35,740 |
| ROUTE 101, SOUTH OF McNAB CREEK BRIDGE | NB/SB | 15.91 | 15.93 | 455 |
| ROUTE 101, NORTH OF McNAB CREEK BRIDGE | NB/SB | 15.95 | 15.97 | 455 |
| ROUTE 101 | NB/SB | 15.97 | 17.50 | 35,260 |
| ROUTE 101, BEGIN 100' SOUTH OF GORE ISLAND | NB/SB | 17.50 | 17.55 | 730 |
| ROUTE 101, ROADBED AT GORE ISLAND | NB | 17.55 | 17.58 | 610 |
| | SB | 17.55 | 17.58 | 610 |
| ROUTE 101, END 100' NORTH OF GORE ISLAND | NB | 17.58 | 17.60 | 350 |
| | SB | 17.58 | 17.60 | 350 |
| ROUTE 101 | NB | 17.60 | 19.58 | 38,800 |
| ROUTE 101 | SB | 17.60 | 19.58 | 39,200 |
| ROUTE 101, BEGIN 964' SOUTH OF BURKE HILL OPAS CENTERLINE | NB | 19.58 | 19.60 | 390 |
| ROUTE 101, BEGIN 923' SOUTH OF BURKE HILL OPAS CENTERLINE | SB | 19.58 | 19.60 | 420 |
| ROUTE 101 | NB | 19.59 | 20.90 | 27,400 |
| | SB | 19.60 | 20.90 | 28,600 |
| SUBTOTAL | | | | 303,109 |
| SUBTOTAL (RAMPS) | | | | 11,840 |
| SUBTOTAL (PAVED DRIVEWAYS AND ROADS) | | | | 4,158 |
| TOTAL | | | | 319,107 |

# SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-DESIGN
FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 05-SEP-2014
TIME PLOTTED => 14:55

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 21 | 32 |

Gulalai Ahad 5-19-14
REGISTERED CIVIL ENGINEER DATE

5-19-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gulalai Ahad No. 81803 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

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

## SHOULDER BACKING

| LOCATION | DIRECTION | POST MILE FROM | POST MILE TO | SHOULDER BACKING TON |
|---|---|---|---|---|
| ROUTE 101 | SB | 9.60 | 10.65 | 277 |
| | SB | 11.20 | 17.50 | 1,660 |
| | SB | 17.51 | 17.61 | 57 |
| | SB | 17.61 | 18.48 | 51 |
| | SB | 18.48 | 18.87 | 175 |
| | SB | 18.87 | 19.07 | 16 |
| | SB | 19.07 | 19.17 | 55 |
| | SB | 19.17 | 19.43 | 13 |
| | SB | 19.43 | 19.59 | 92 |
| | SB | 19.59 | 20.90 | 75 |
| | SB | 17.50 | 20.90 | 900 |
| | NB | 9.60 | 10.65 | 277 |
| | NB | 11.20 | 17.50 | 1,660 |
| | NB | 17.67 | 17.89 | 125 |
| | NB | 17.89 | 18.05 | 9 |
| | NB | 18.05 | 18.18 | 75 |
| | NB | 18.18 | 18.75 | 30 |
| | NB | 18.75 | 19.14 | 210 |
| | NB | 19.14 | 19.28 | 8 |
| | NB | 19.28 | 19.45 | 95 |
| | NB | 19.45 | 19.56 | 6 |
| | NB | 19.56 | 19.59 | 15 |
| | NB | 19.59 | 19.89 | 9 |
| | NB | 19.89 | 20.56 | 300 |
| | NB | 20.56 | 20.90 | 10 |
| | NB | 17.50 | 20.90 | 900 |
| DRIVEWAYS | | | | 420 |
| PULLOUT | | | | 20 |
| TOTAL | | | | 7,540 |

## RUMBLE STRIP TABLE

| POST MILE FROM | POST MILE TO | CENTERLINE RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS) STA | SHOULDER RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS) NB STA | SHOULDER RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS) SB STA |
|---|---|---|---|---|
| 9.60 | 9.85 | 13.73 | | |
| 9.89 | 10.46 | 30.10 | | |
| 10.47 | 10.57 | 5.28 | | |
| 11.33 | 11.69 | 19.01 | | |
| 11.73 | 11.98 | 13.20 | | |
| 11.67 | 11.96 | | 15.31 | |
| 12.02 | 13.21 | 62.83 | | |
| 12.02 | 13.40 | | 72.86 | |
| 12.41 | 13.21 | | | 42.24 |
| 13.25 | 14.46 | 63.89 | | |
| 13.32 | 13.43 | | | 5.81 |
| 13.49 | 13.70 | | 11.09 | |
| 13.49 | 13.71 | | | 11.62 |
| 13.82 | 14.62 | | | 42.24 |
| 13.84 | 14.44 | | 31.68 | |
| 14.50 | 14.62 | 6.34 | 6.34 | |
| 14.63 | 15.06 | | 22.70 | |
| 14.63 | 15.14 | | | 26.93 |
| 14.63 | 15.31 | 35.90 | | |
| 15.31 | 15.94 | | 33.26 | |
| 15.35 | 15.94 | 31.15 | | |
| 15.37 | 15.94 | | | 30.10 |
| 15.95 | 16.47 | 27.46 | | |
| 15.95 | 16.45 | | 26.40 | |
| 15.95 | 16.47 | | | 27.46 |
| 16.51 | 17.22 | 37.49 | | |
| 16.51 | 17.20 | | 36.43 | |
| 16.53 | 17.22 | | | 36.43 |
| 17.26 | 19.44 | | 115.10 | |
| 17.26 | 17.46 | 10.56 | | |
| 17.46 | 17.50 | 4.22 | | |
| 17.50 | 20.90 | 359.04 | | |
| 17.28 | 19.47 | | | 115.63 |
| 19.59 | 19.80 | | 11.09 | |
| 19.59 | 19.84 | | | 13.20 |
| 19.92 | 20.45 | | 27.98 | |
| 19.99 | 20.50 | | | 26.93 |
| 20.61 | 20.80 | | 10.03 | |
| 20.63 | 20.82 | | | 10.03 |
| SUBTOTAL | | 720.20 | 420.27 | 388.62 |
| TOTAL | | 720.20 | 808.89 | |

## REPLACE ASPHALT CONCRETE SURFACING

| DIRECTION | POST MILE FROM | POST MILE TO | WIDTH FT | REPLACE ASPHALT CONCRETE SURFACING CY |
|---|---|---|---|---|
| SB | 11.21 | 11.41 | 12 | 164 |
| NB | 11.23 | 11.41 | 12 | 140 |
| SB | 13.43 | 13.99 | 12 | 462 |
| TOTAL | | | | 766 |

NOTE: EXACT LOCATIONS OF REPLACE AC SURFACING TO BE DETERMINED BY THE ENGINEER.

## TEMPORARY DRAINAGE INLET PROTECTION

| TEMPORARY DRAINAGE INLET PROTECTION | |
|---|---|
| TOTAL | 29 EACH |

# SUMMARY OF QUANTITIES

Q-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 03-DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI
CALCULATED-DESIGNED BY: GULALAI AHAD
CHECKED BY: FEREIDOON NEJABAT
REVISED BY / DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 05-SEP-2014 | TIME PLOTTED => 14:55

## 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,<br>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,<br>PRECAST |
| PCC | POINT OF COMPOUND CURVE,<br>PORTLAND CEMENT CONCRETE |
| PCMS | PORTABLE CHANGEABLE MESSAGE SIGN |
| PCP | PERFORATED CONCRETE PIPE,<br>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,<br>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,<br>PLASTIC PIPE,<br>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,<br>REINFORCEMENT,<br>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,<br>REFERENCE POINT |
| RR | RAILROAD |
| RSP | ROCK SLOPE PROTECTION,<br>REVISED STANDARD PLAN |
| Rt | RIGHT |
| Rte | ROUTE |
| RW | REDWOOD,<br>RETAINING WALL |
| R/W | RIGHT OF WAY |
| Rwy | RAILWAY |

## S

| | |
|---|---|
| S | SOUTH,<br>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,<br>SECTION |
| Sep | SEPARATION |
| SG | SUBGRADE |
| Shld | SHOULDER |
| Sht | SHEET |
| Sim | SIMILAR |
| ℄ | STATION LINE |
| SM | SELECTED MATERIAL |
| Spec | SPECIAL,<br>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,<br>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,<br>TRAFFIC SIGNAL,<br>TUBULAR STEEL |
| Typ | TYPICAL |

## U

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

## V

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

## W

| | |
|---|---|
| W | WEST,<br>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 |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 22 | 32 |

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 5-19-14

### 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 |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 23 | 32 |

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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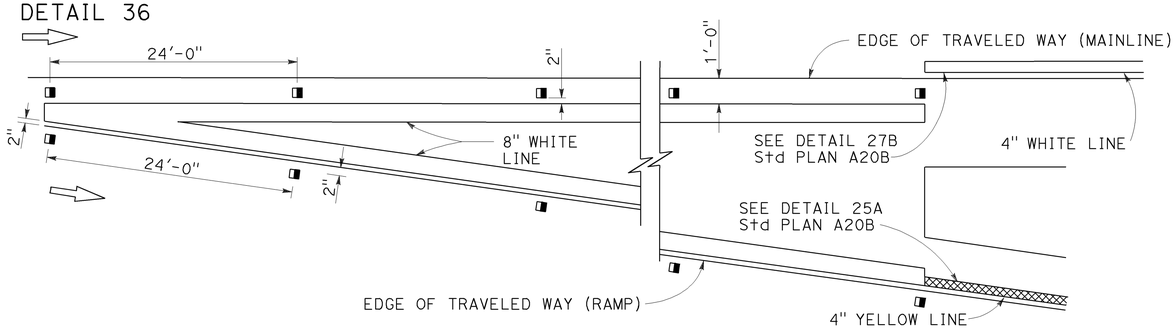
TO ACCOMPANY PLANS DATED 5-19-14

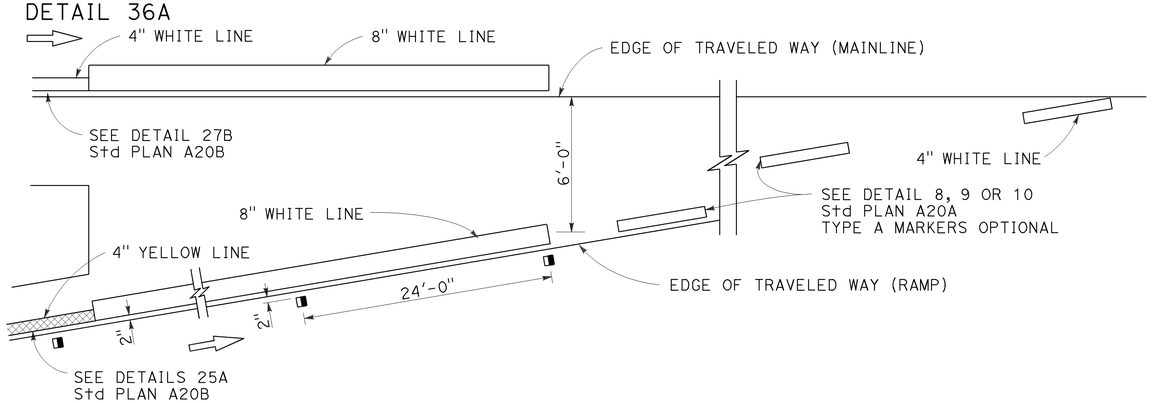
## EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



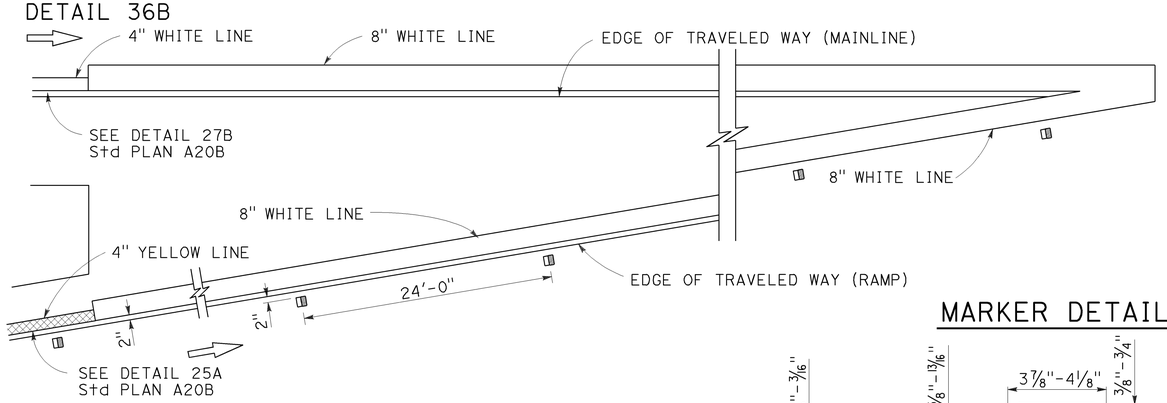

## ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A

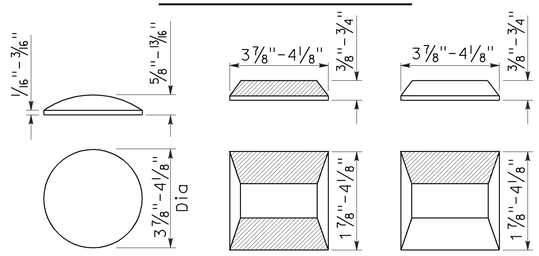



## ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B




## MARKER DETAILS




TYPE A TYPE C TYPE G

RETROREFLECTIVE FACE

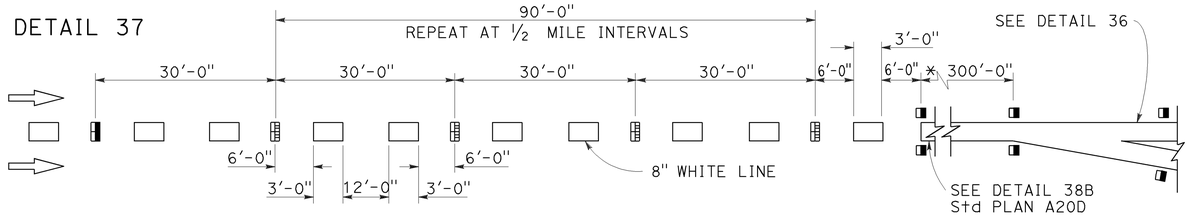
**LEGEND:**

MARKERS

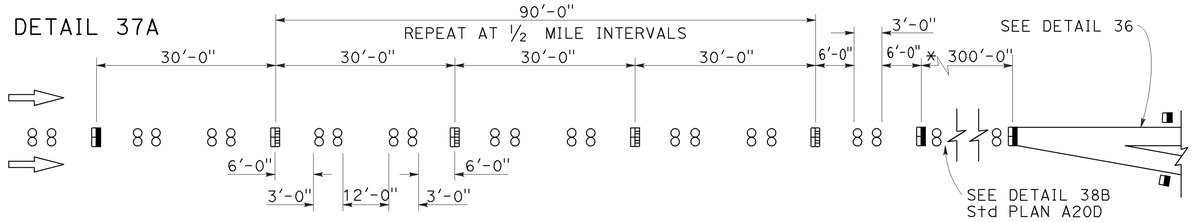
- TYPE A WHITE NON-REFLECTIVE
- TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE

## LANE DROP AT EXIT RAMPS

DETAIL 37



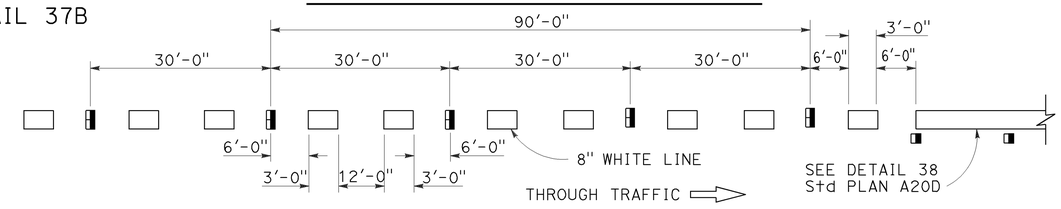

DETAIL 37A



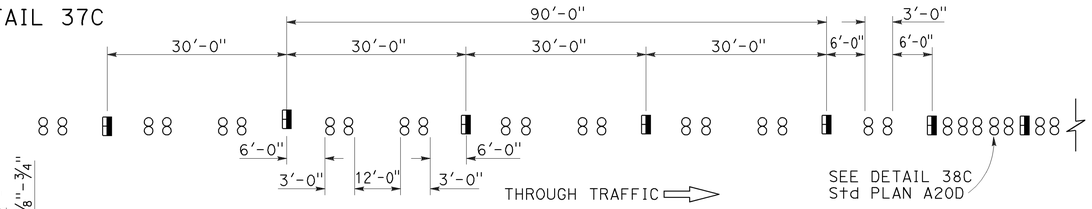

* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

## 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 |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 24 | 32 |

Roberta L. McLaughlin
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

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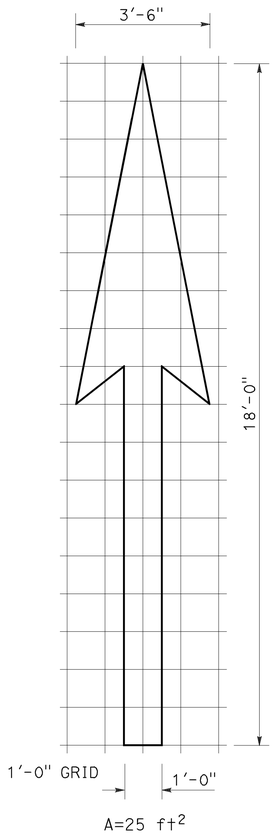
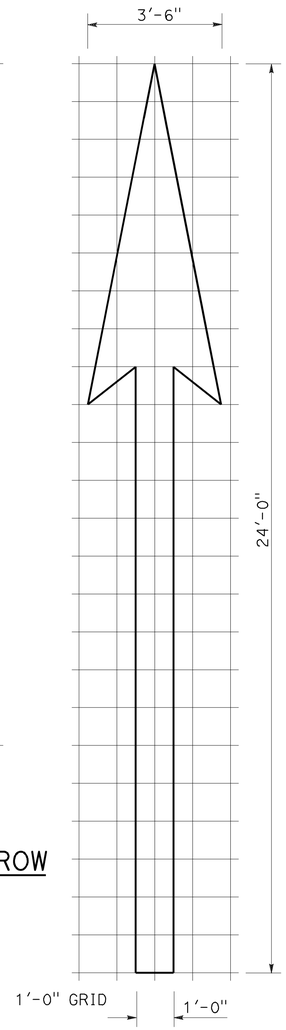
TO ACCOMPANY PLANS DATED 5-19-14

**2010 REVISED STANDARD PLAN RSP A24A**



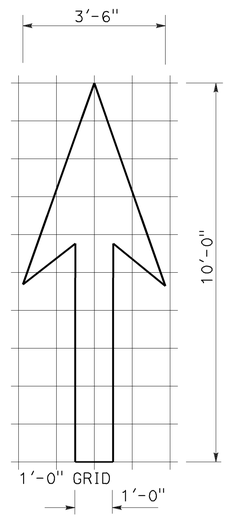

A=25 ft$^2$

TYPE I 18'-0" ARROW



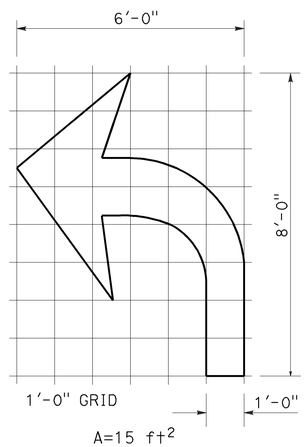

A=31 ft$^2$

TYPE I 24'-0" ARROW




A=14 ft$^2$

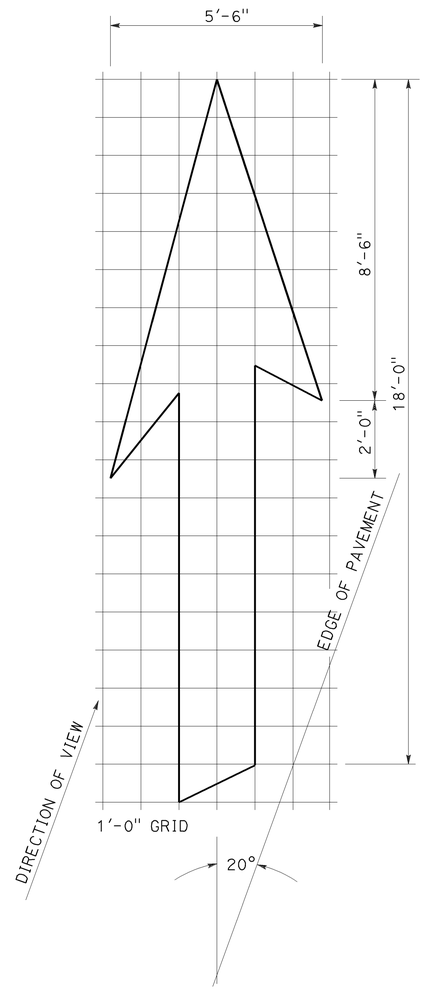
TYPE I 10'-0" ARROW




A=15 ft$^2$

TYPE IV (L) ARROW

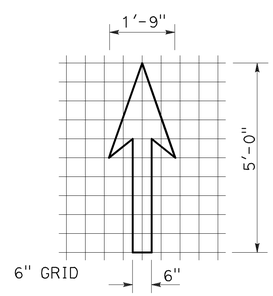
(For Type IV (R) arrow, use mirror image)




A=42 ft$^2$

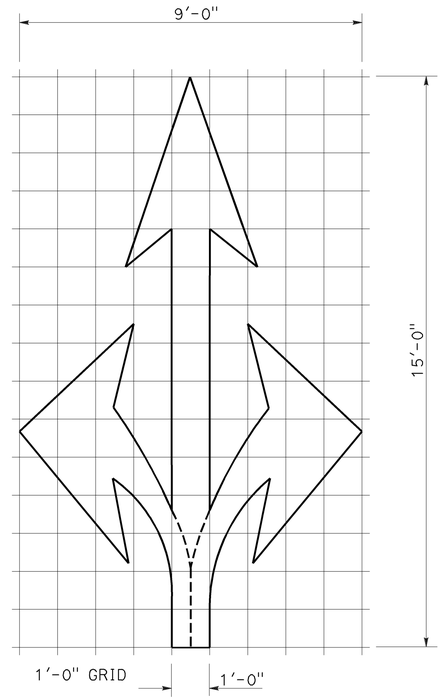
TYPE VI ARROW

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



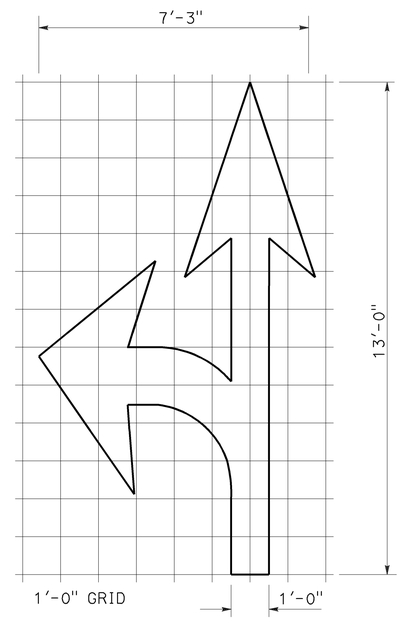

A=3.5 ft$^2$

BIKE LANE ARROW




A=36 ft$^2$

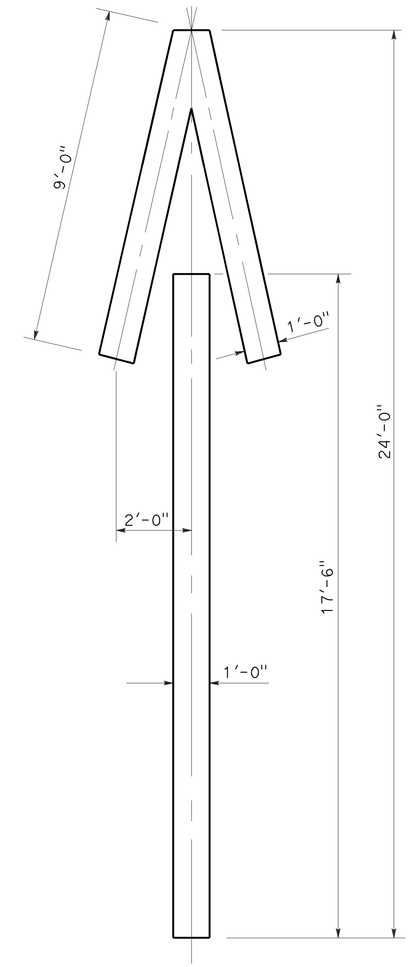
TYPE VIII ARROW




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**

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 25 | 32 |

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

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

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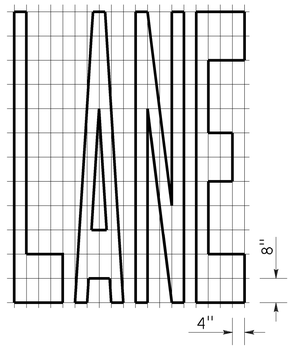
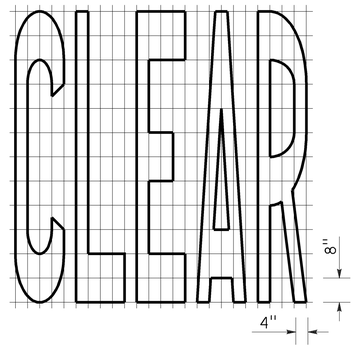
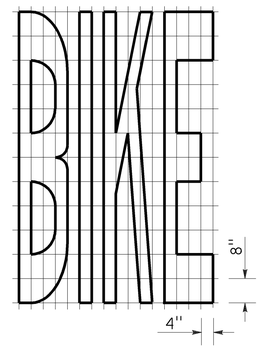
TO ACCOMPANY PLANS DATED 5-19-14



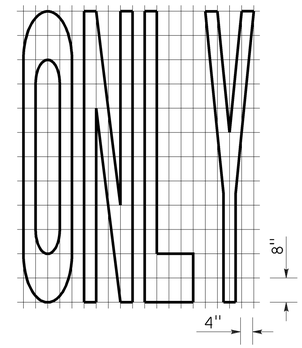

A=24 ft$^2$



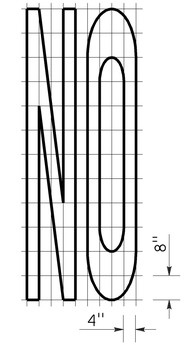

A=27 ft$^2$



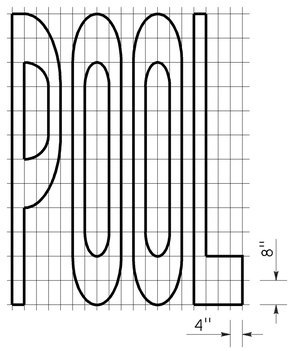

A=21 ft$^2$



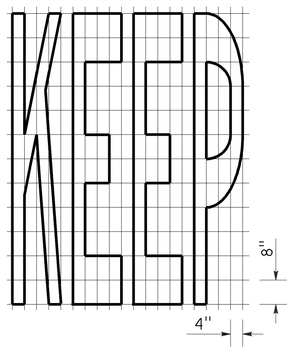

A=22 ft$^2$



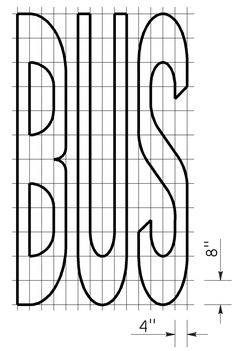

A=14 ft$^2$



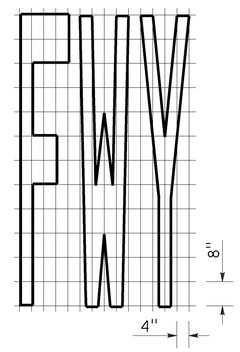

A=23 ft$^2$



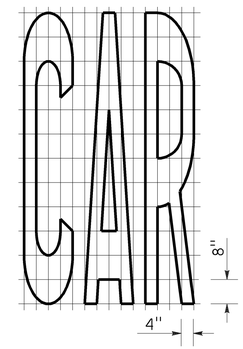

A=24 ft$^2$




A=20 ft$^2$

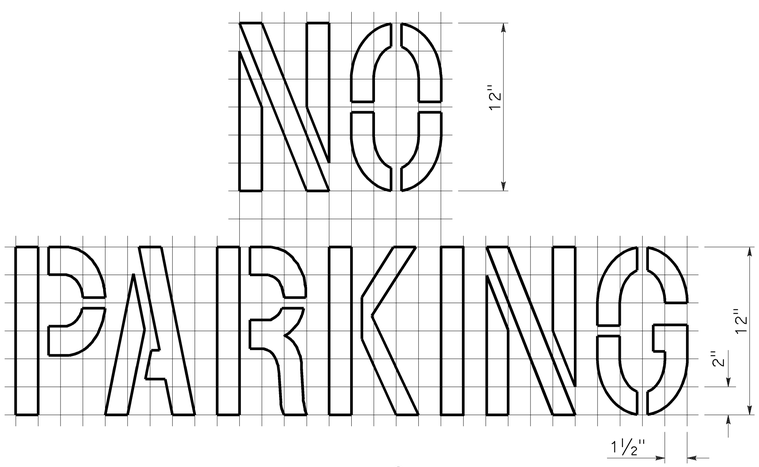



A=16 ft$^2$



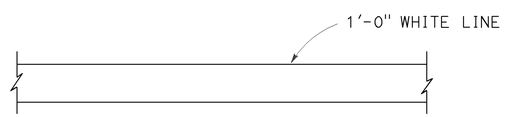

A=17 ft$^2$

| 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 |

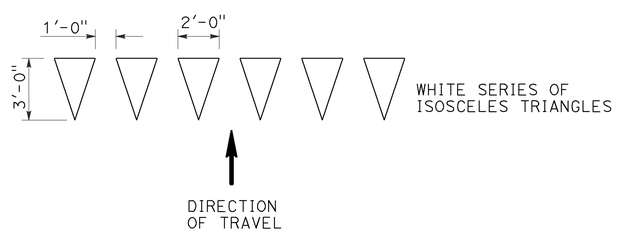



A=2 ft$^2$

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 |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 26 | 32 |

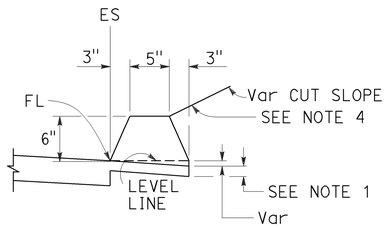
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

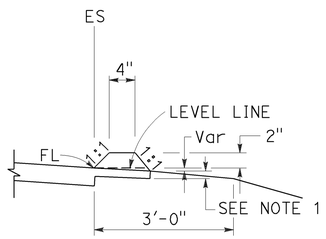
REGISTERED PROFESSIONAL ENGINEER
Michael Janzen
No. 44788
Exp. 03-31-14
CIVIL
STATE OF CALIFORNIA

*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.*

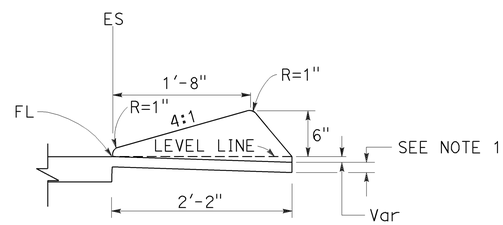
TO ACCOMPANY PLANS DATED 5-19-14



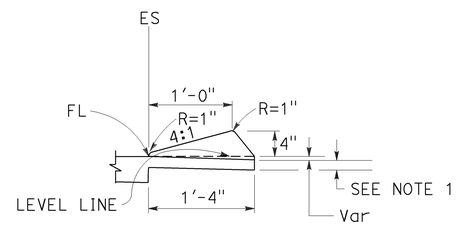

TYPE A
See Note 3



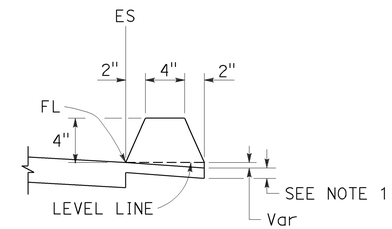

TYPE C




TYPE D

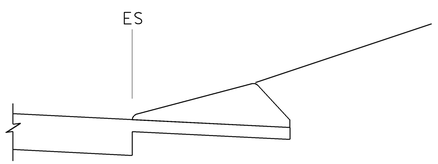



TYPE E

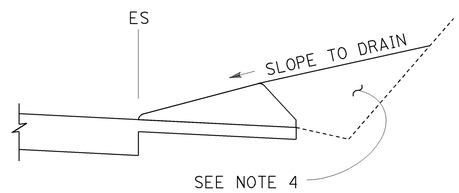



TYPE F
See Note 5

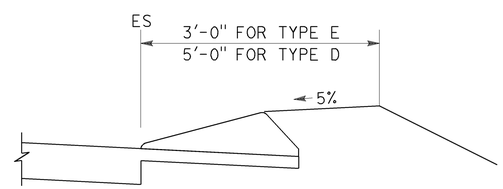
## DIKES



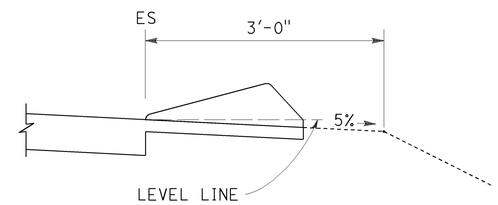

CASE C-1
Cut Slope




CASE C-2
Cut Slope




CASE F




CASE R
See Note 2

## TYPE D AND E BACKFILL DETAILS

### NOTES:

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

### DIKE QUANTITIES

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

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# HOT MIX ASPHALT DIKES

NO SCALE

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

**REVISED STANDARD PLAN RSP A87B**

**2010 REVISED STANDARD PLAN RSP A87B**

6-27-13

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 27 | 32 |

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 5-19-14

## 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**

**2010 REVISED STANDARD PLAN RSP T9**

4-30-13

TO ACCOMPANY PLANS DATED 5-19-14

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 28 | 32 |

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.*

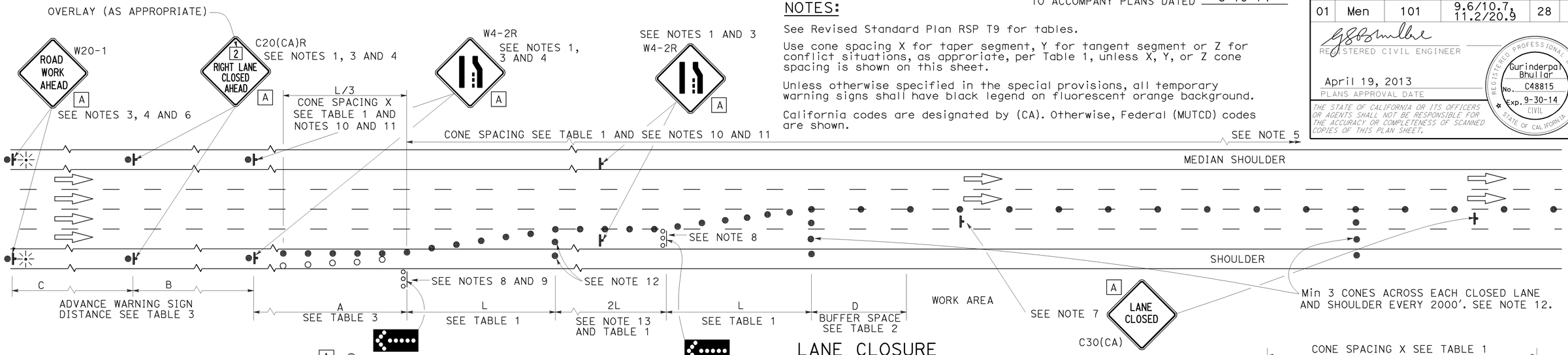
## NOTES:

See Revised Standard Plan RSP T9 for tables.

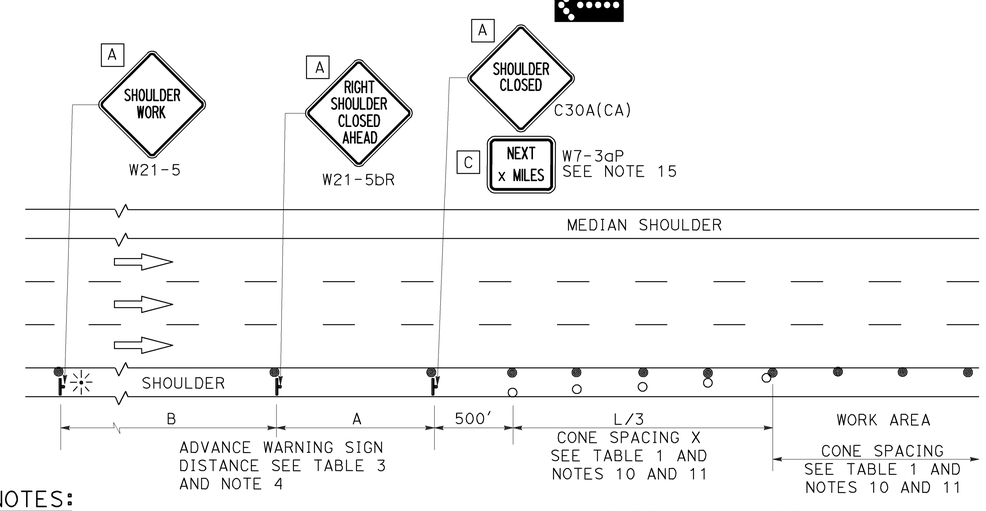
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

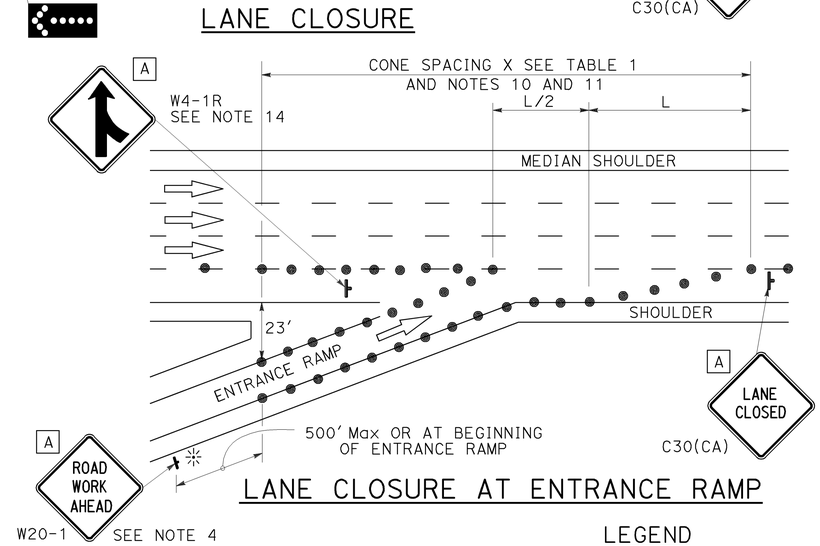
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



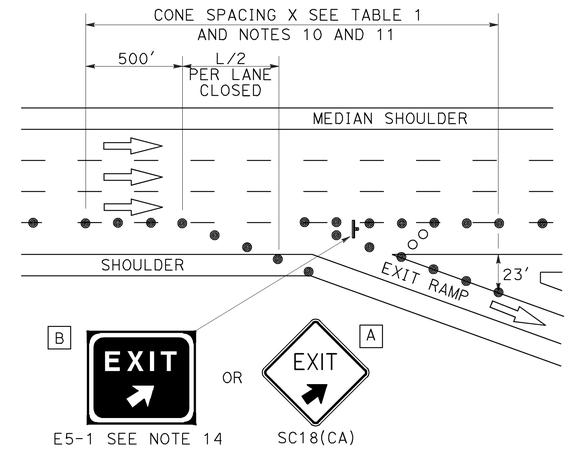

## LANE CLOSURE




## 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

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 29 | 32 |

REGISTERED CIVIL ENGINEER

July 18, 2014
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 5-19-14

## NOTES:

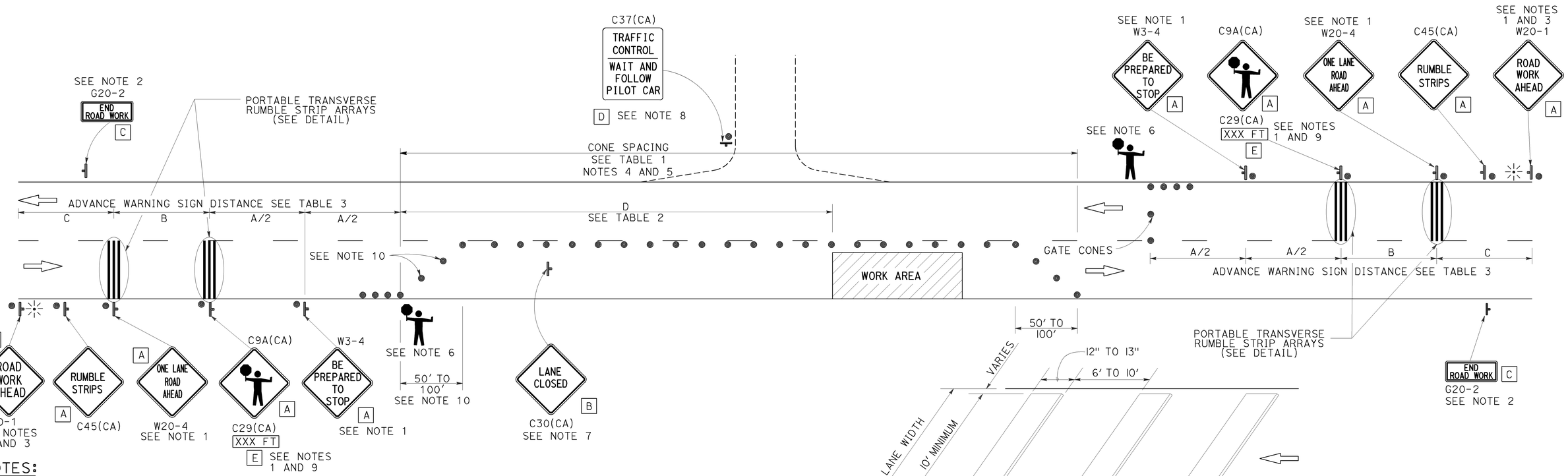
See Revised Standard Plan RSP T9 for tables.

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.

## 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 JULY 18, 2014 SUPERSEDES 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

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 30 | 32 |

REGISTERED CIVIL ENGINEER

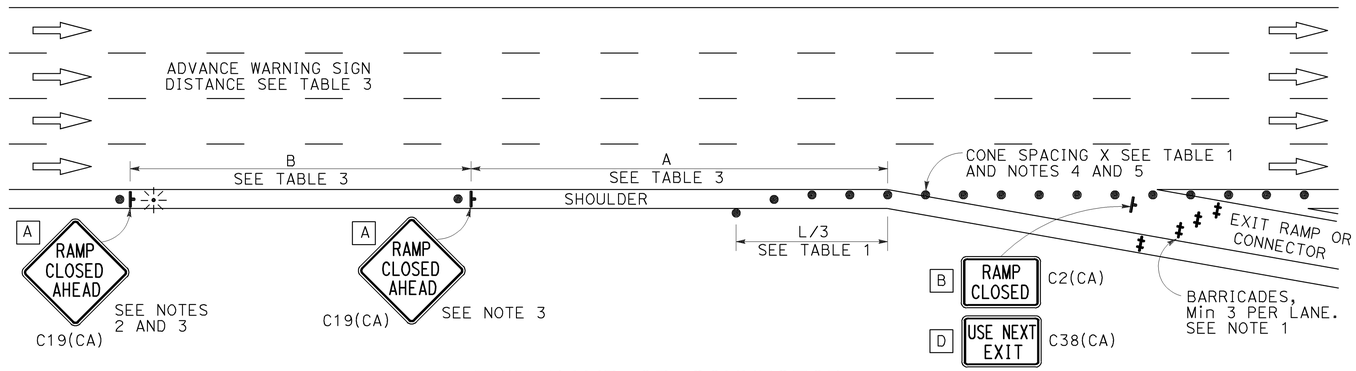
April 19, 2013
PLANS APPROVAL DATE

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

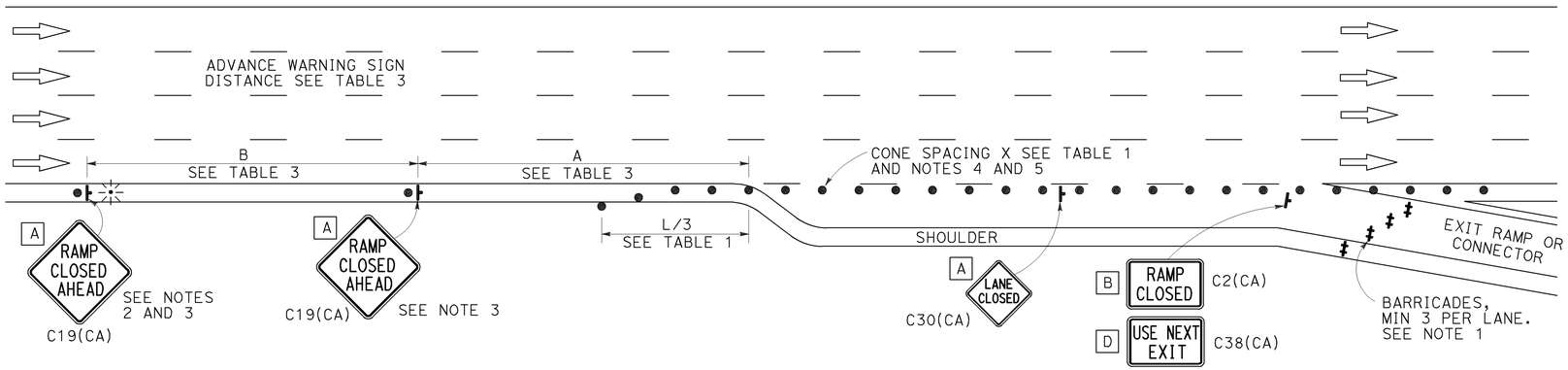
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 5-19-14

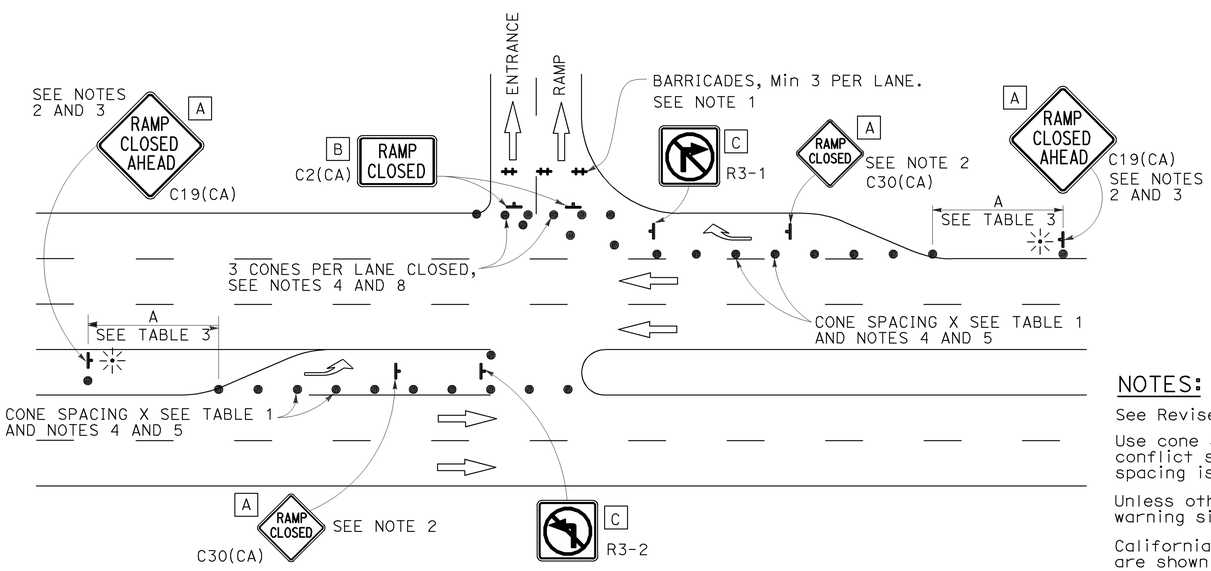
# TYPICAL RAMP CLOSURES




## EXIT RAMP OR CONNECTOR




## EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE




## ENTRANCE RAMP WITH TURNING POCKETS

## SIGN PANEL SIZE (Min)

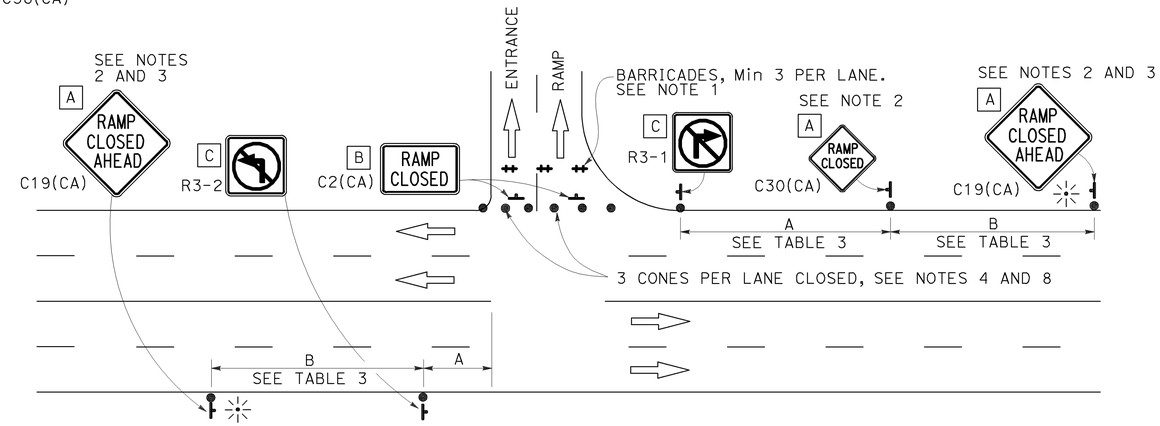
- A 48" × 48"
- B 48" × 30"
- C 36" × 36"
- D 48" × 36"

## 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 |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 31 | 32 |

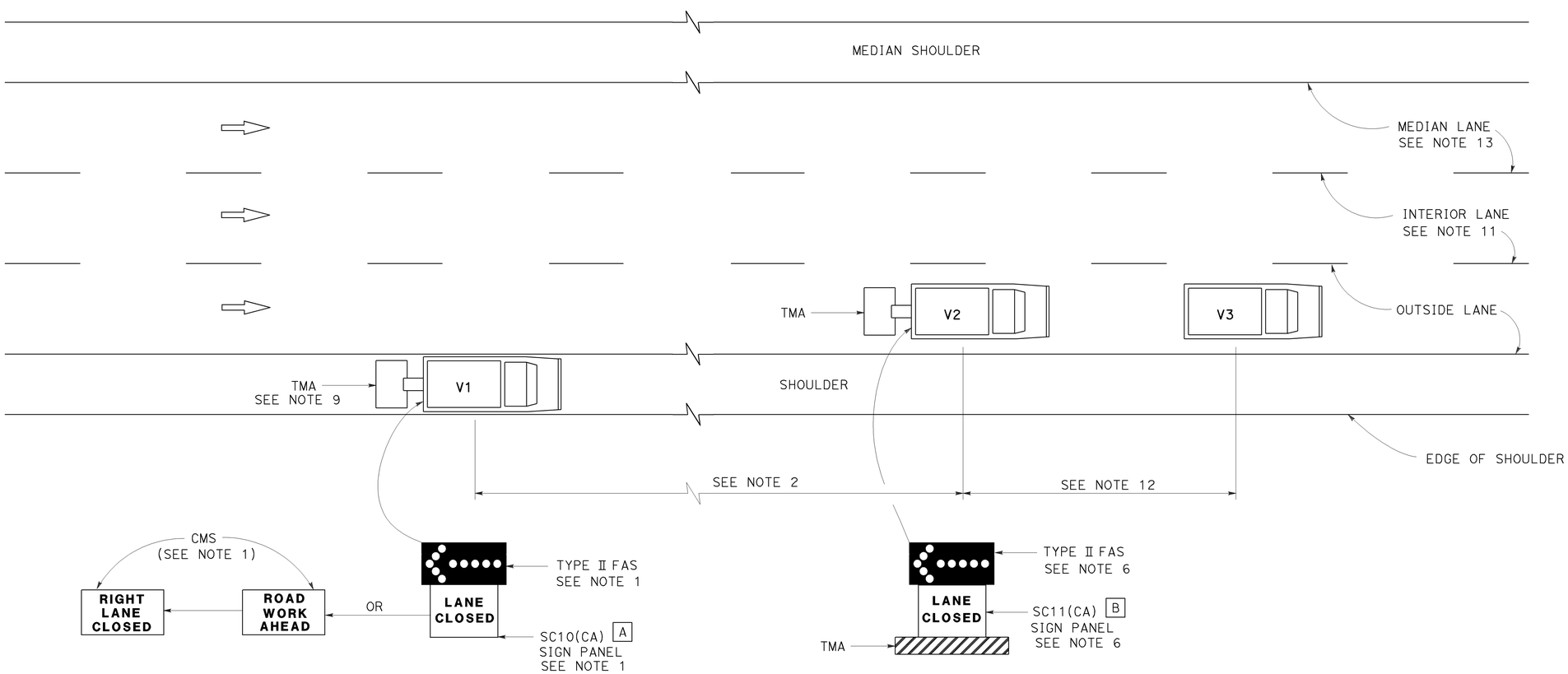
REGISTERED CIVIL ENGINEER

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 5-19-14




## 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 |
|---|---|---|---|---|---|
| 01 | Men | 101 | 9.6/10.7, 11.2/20.9 | 32 | 32 |

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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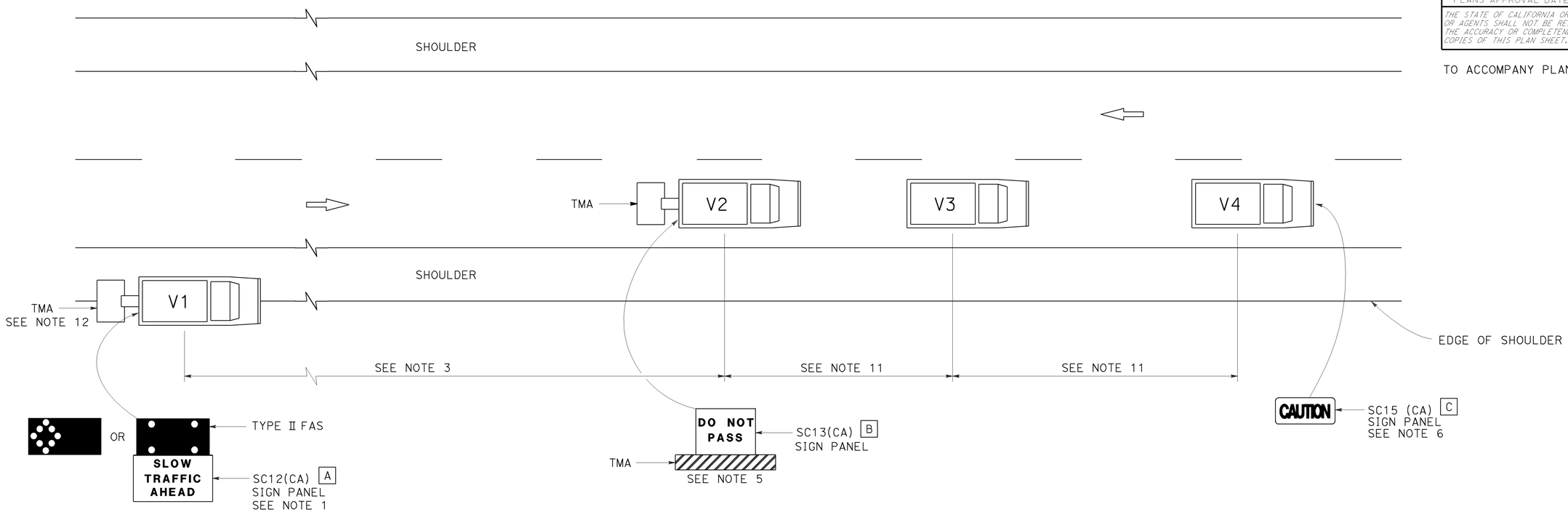
TO ACCOMPANY PLANS DATED 5-19-14




## LEGEND

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

## SIGN PANEL SIZE (Min)

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

## NOTES:

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.
7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2′ or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON TWO LANE HIGHWAYS

NO SCALE

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

**REVISED STANDARD PLAN RSP T17**

**2010 REVISED STANDARD PLAN RSP T17**

12-18-12