| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 1 | 47 |

INDEX OF PLANS



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

STATE OF CALIFORNIA

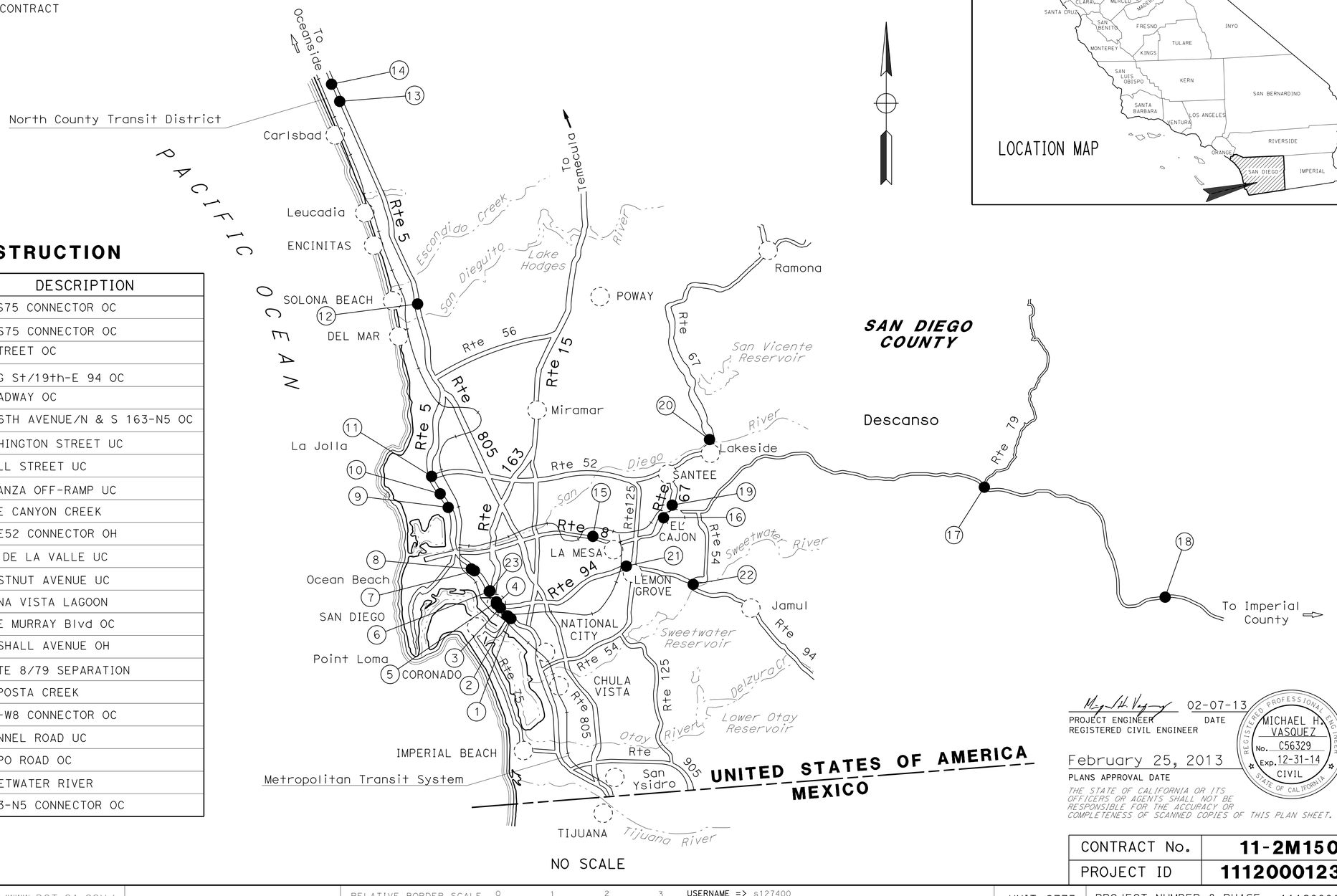
# DEPARTMENT OF TRANSPORTATION

## PROJECT PLANS FOR CONSTRUCTION ON

# STATE HIGHWAY

## IN SAN DIEGO COUNTY AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010


NO SCALE

## LOCATIONS OF CONSTRUCTION

| Loc | Rte | PM | BRIDGE No. | DESCRIPTION |
|---|---|---|---|---|
| 1 | 5 | R13.90 | 57-0846G | N5-S75 CONNECTOR OC |
| 2 | 5 | R14.16 | 57-0939H | S5-S75 CONNECTOR OC |
| 3 | 5 | R14.74 | 57-0451 | J STREET OC |
| 4 | 5 | R15.00 | 57-0418S | S5-G St/19th-E 94 OC |
| 5 | 5 | R15.18 | 57-0423 | BROADWAY OC |
| 6 | 5 | R16.17 | 57-0397S | N5-6TH AVENUE/N & S 163-N5 OC |
| 7 | 5 | R18.28 | 57-0546L | WASHINGTON STREET UC |
| 8 | 5 | R18.53 | 57-0547 | NOELL STREET UC |
| 9 | 5 | R22.87 | 57-0287R | DE ANZA OFF-RAMP UC |
| 10 | 5 | R23.82 | 57-0289 | ROSE CANYON CREEK |
| 11 | 5 | R25.93 | 57-0519F | S5-E52 CONNECTOR OH |
| 12 | 5 | R36.27 | 57-0489 | VIA DE LA VALLE UC |
| 13 | 5 | R49.73 | 57-0275 | CHESTNUT AVENUE UC |
| 14 | 5 | R50.94 | 57-0277 | BUENA VISTA LAGOON |
| 15 | 8 | 9.59 | 57-0341 | LAKE MURRAY Blvd OC |
| 16 | 8 | 14.95 | 57-0369 | MARSHALL AVENUE OH |
| 17 | 8 | R37.83 | 57-0689R | ROUTE 8/79 SEPARATION |
| 18 | 8 | R56.78 | 57-0756R | LA POSTA CREEK |
| 19 | 67 | R0.16 | 57-0557F | S67-W8 CONNECTOR OC |
| 20 | 67 | R5.19 | 57-0562L | CHANNEL ROAD UC |
| 21 | 94 | R10.72 | 57-0803 | CAMPO ROAD OC |
| 22 | 94 | 15.27 | 57-0962 | SWEETWATER RIVER |
| 23 | 163 | 0.88 | 57-0392G | N163-N5 CONNECTOR OC |

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

PROJECT MANAGER: ALBERTO GAYON

DESIGN ENGINEER: MICHAEL H. VASQUEZ

02-07-13
PROJECT ENGINEER / REGISTERED CIVIL ENGINEER — DATE

MICHAEL H. VASQUEZ
No. C56329
Exp. 12-31-14
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

February 25, 2013
PLANS APPROVAL DATE

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

| | |
|---|---|
| CONTRACT No. | 11-2M1504 |
| PROJECT ID | 1112000123 |

LAST REVISION 02-12-13
DATE PLOTTED => 04-MAR-2013
TIME PLOTTED => 14:03

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 2 | 47 |

REGISTERED CIVIL ENGINEER — DATE: 02-07-13

MICHAEL H. VASQUEZ No. C56329 Exp. 12/31/14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE: 02-25-13

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. EXACT LOCATION OF CONSTRUCTION AREA SIGNS WILL BE DETERMINED BY THE ENGINEER.
2. FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SIGN CODES ARE SHOWN UNLESS DESIGNATED BY (CA), INDICATING CALIFORNIA SIGN SPECIFICATIONS ARE USED.
3. SEE TRAFFIC HANDLING PLANS FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
4. EXISTING UTILITIES ARE NOT SHOWN ON THESE PLAN SHEETS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND ADJUST THE FIELD LOCATION OF SIGN POSTS IN CONSULTATION WITH THE ENGINEER.

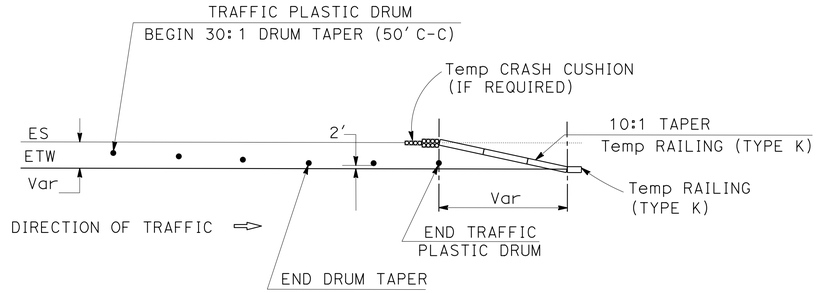
## LEGEND:

[XX] = CONSTRUCTION AREA SIGNS

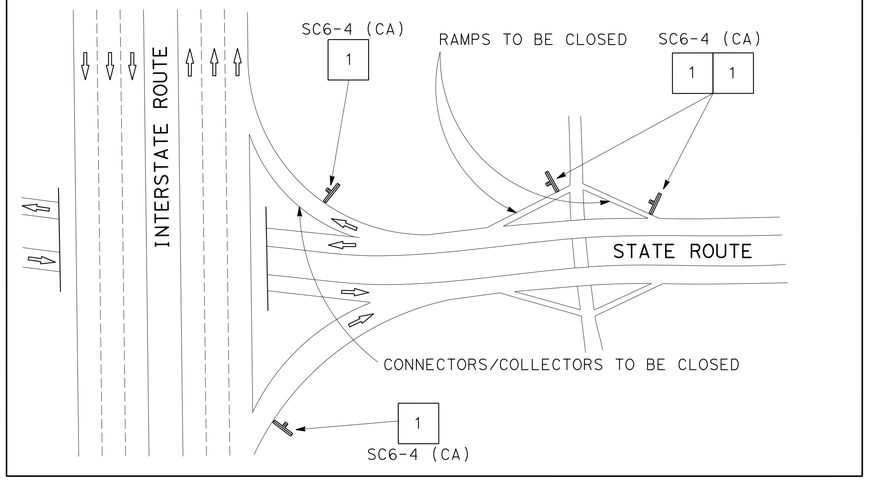
## CONSTRUCTION AREA SIGNS

| SIGN No. | CODE | PANEL SIZE (INCH) | No. OF POST AND SIZE (INCH) | No. OF SIGNS |
|---|---|---|---|---|
| 1 | SC6-4 (CA) | 48 X 60 | PORTABLE | 7 |
| 2 | C23 (CA) | 48 X 48 | 1-4 X 6 (S) | 36 |
| 3 | C14 (CA) | 48 X 24 | 1-4 X 4 (S) | 33 |

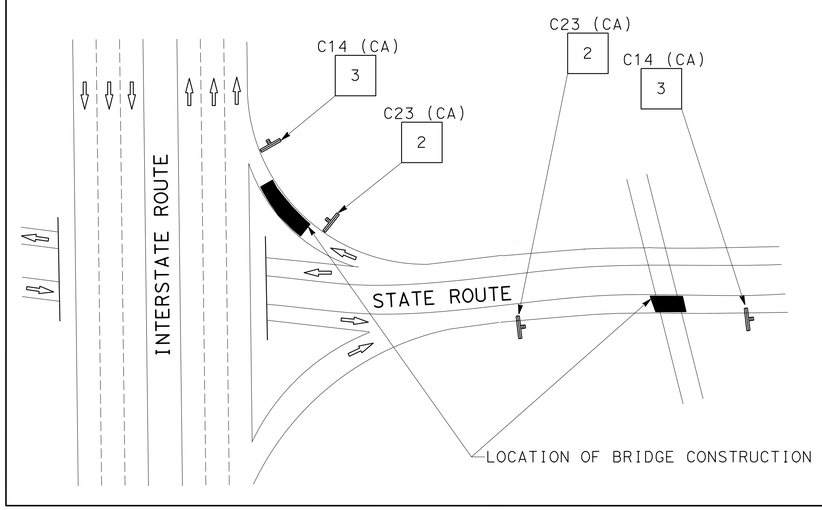
## TYPICAL PLACEMENT OF TRAFFIC PLASTIC DRUM




## TYPICAL- PLACEMENT OF SC6-4 (CA) CONSTRUCTION AREA SIGNS




## TYPICAL- PLACEMENT OF C23 (CA) AND C14 (CA) CONSTRUCTION AREA SIGNS




*APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY*

## CONSTRUCTION AREA SIGNS

NO SCALE

**CS-1**

CALCULATED-DESIGNED BY | CHECKED BY

REVISED BY | DATE REVISED

EYERUSALEM TADESSE | MICHAEL VASQUEZ

FUNCTIONAL SUPERVISOR: ALBERTO GAYON

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

LAST REVISION | DATE PLOTTED => 04-MAR-2013 | TIME PLOTTED => 11:43 | 02-12-13

BORDER LAST REVISED 7/2/2010 | USERNAME => s127400 | DGN FILE => 11120001231a001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 3 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

02-25-13
PLANS APPROVAL DATE

MICHAEL H. VASQUEZ No. C56329 Exp.12/31/14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — 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. EXACT LOCATION OF CONSTRUCTION AREA SIGNS SHALL BE DETERMINED BY THE ENGINEER.
2. FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SIGN CODES ARE SHOWN UNLESS DESIGNATED BY (CA), INDICATING CALIFORNIA SIGN SPECIFICATIONS ARE USED.
3. ROTATE ARROW ON SC9 (CA) PANEL TO REFLECT DIRECTION OF DETOUR.
4. SEE CONSTRUCTION AREA SIGN PLAN FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
5. EXISTING UTILITIES ARE NOT SHOWN ON THESE PLAN SHEETS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND ADJUST THE FIELD LOCATION OF THE SIGN POSTS IN CONSULTATION WITH THE ENGINEER.

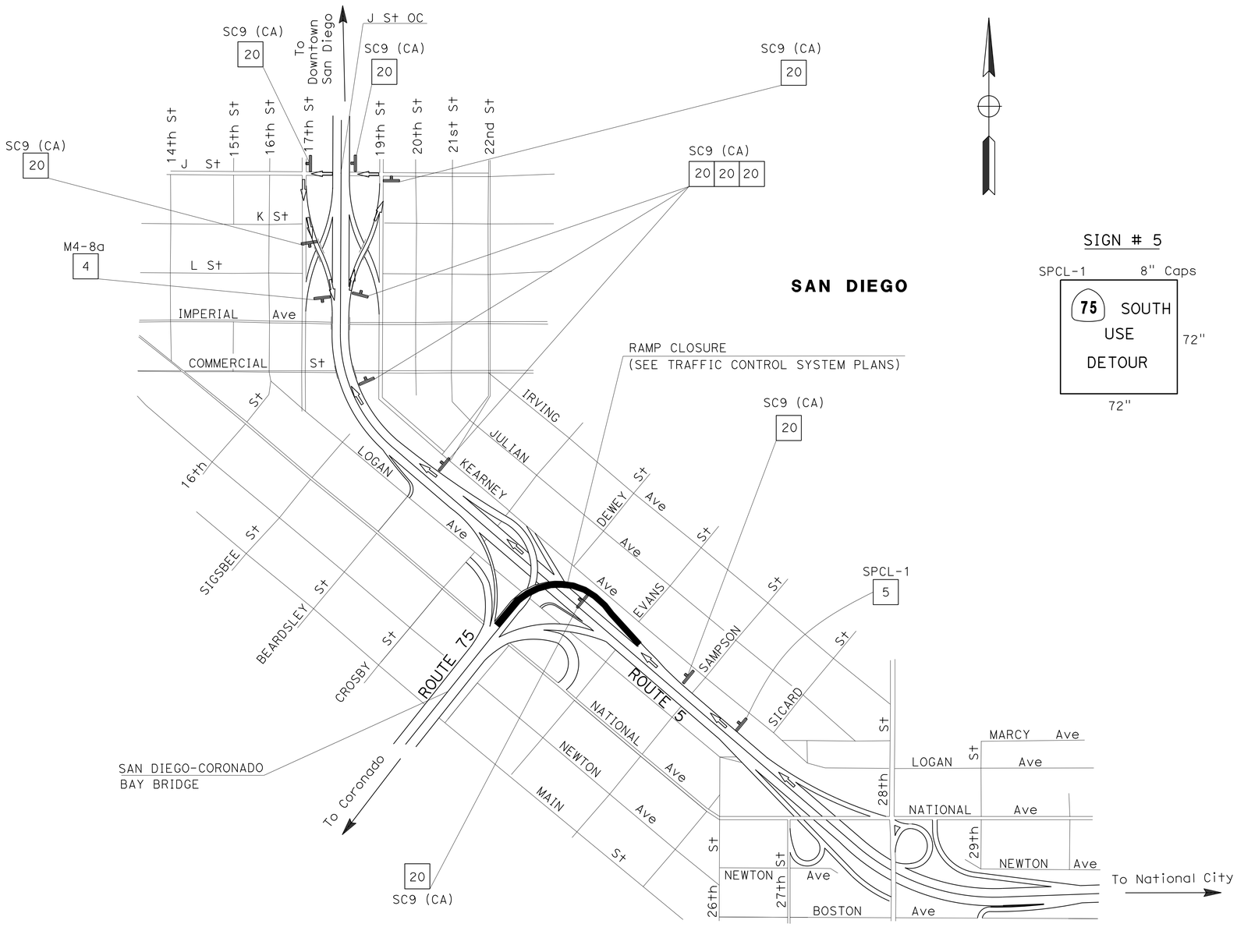
## LEGEND

XX = CONSTRUCTION AREA SIGNS

SPCL = SPECIAL CONSTRUCTION AREA SIGN

Caps = CAPITAL LETTERING

⇨ = DETOUR DIRECTION OF TRAVEL




## SIGN # 5

SPCL-1 8" Caps

75 SOUTH USE DETOUR

72" × 72"

## CONSTRUCTION AREA SIGNS

| SIGN No. | CODE | (INCH) | No. OF POST AND SIZE (INCH) | No. OF SIGNS |
|---|---|---|---|---|
| 4 | M4-8a | 24 X 18 | PORTABLE | 14 |
| 5 | SPCL-1 | 72 X 72 | PORTABLE | 1 |
| 6 | SPCL-2 | 72 X 72 | PORTABLE | 2 |
| 7 | SPCL-3 | 72 X 72 | PORTABLE | 1 |
| 8 | SPCL-4 | 72 X 72 | PORTABLE | 1 |
| 9 | SPCL-5 | 72 X 72 | PORTABLE | 2 |
| 10 | SPCL-6 | 72 X 72 | PORTABLE | 1 |
| 11 | SPCL-7 | 72 X 72 | PORTABLE | 1 |
| 12 | SPCL-8 | 72 X 72 | PORTABLE | 5 |
| 13 | SPCL-9 | 72 X 72 | PORTABLE | 3 |
| 14 | SPCL-10 | 72 X 72 | PORTABLE | 1 |
| 15 | SPCL-11 | 72 X 72 | PORTABLE | 1 |
| 16 | SPCL-12 | 72 X 72 | PORTABLE | 2 |
| 17 | SPCL-13 | 72 X 72 | PORTABLE | 2 |
| 18 | SPCL-14 | 72 X 72 | PORTABLE | 1 |
| 19 | SPCL-15 | 72 X 72 | PORTABLE | 2 |
| 20 | SC9 (CA) | 36 X 36 | PORTABLE | 165 |

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

NB 5 CONNECTOR TO SB 75

# TRAFFIC HANDLING PLAN (LOCATION 1)

NO SCALE

**TH-1**

REVISED BY | DATE REVISED
EVERUSALEM TADESSE | MICHAEL VASQUEZ
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: ALBERTO GAYON
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

LAST REVISION | DATE PLOTTED => 04-MAR-2013
02-12-13 | TIME PLOTTED => 11:43

BORDER LAST REVISED 7/1/2010 | USERNAME => s127400 | DGN FILE => 1112000123md001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

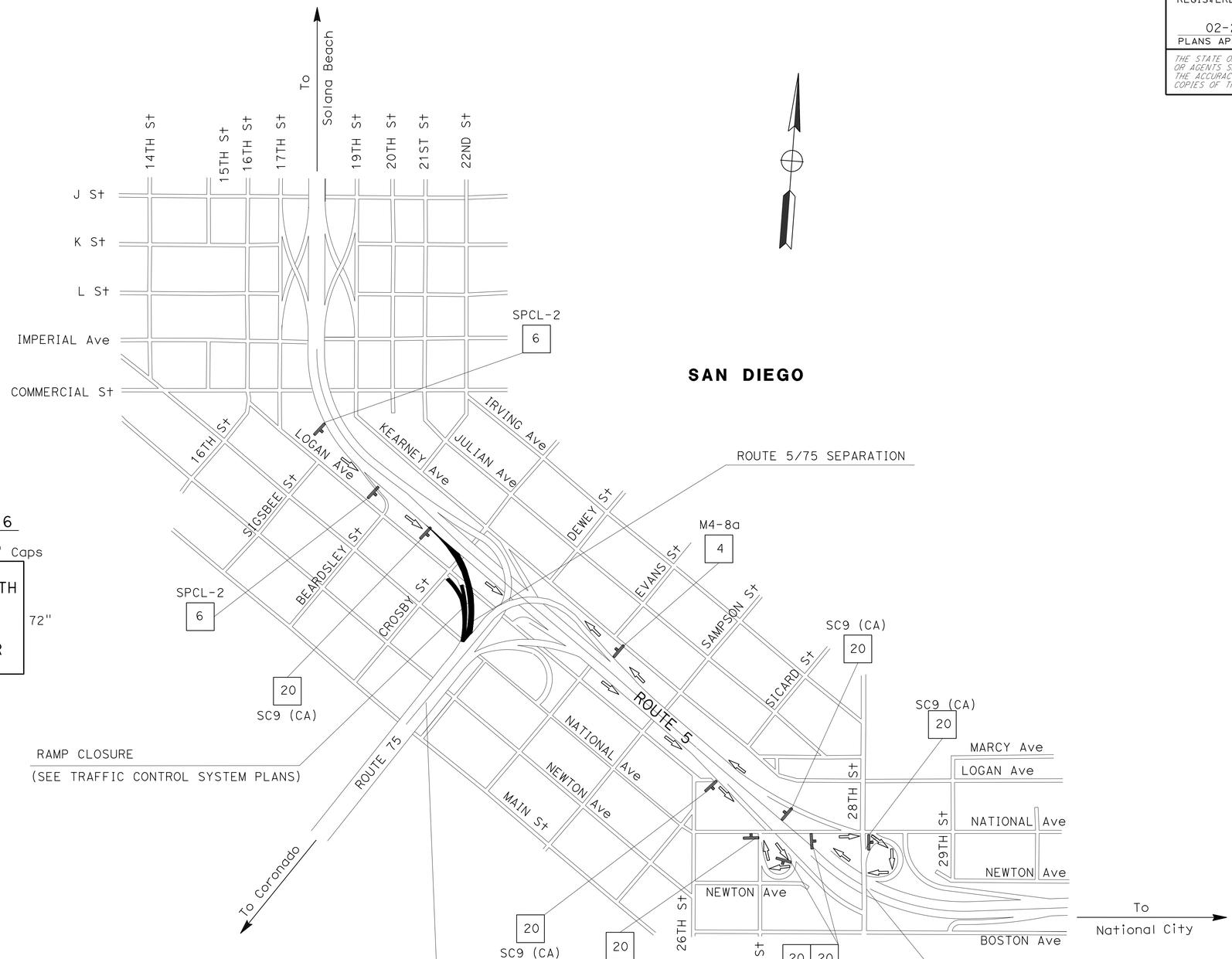
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 4 | 47 |

REGISTERED CIVIL ENGINEER — DATE: 02-07-13

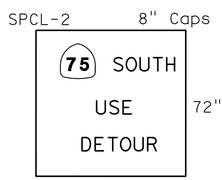
MICHAEL H. VASQUEZ No. C56329 Exp. 12/31/14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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




SIGN # 6




SB 5 CONNECTOR TO SB 75

# TRAFFIC HANDLING PLAN (LOCATION 2)

NO SCALE

TH-2

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 04-MAR-2013
02-12-13 TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010
USERNAME => s127400
DGN FILE => 1112000123md002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2773
PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 5 | 47 |

REGISTERED CIVIL ENGINEER — 02-07-13 DATE

MICHAEL H. VASQUEZ No. C56329 Exp.12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

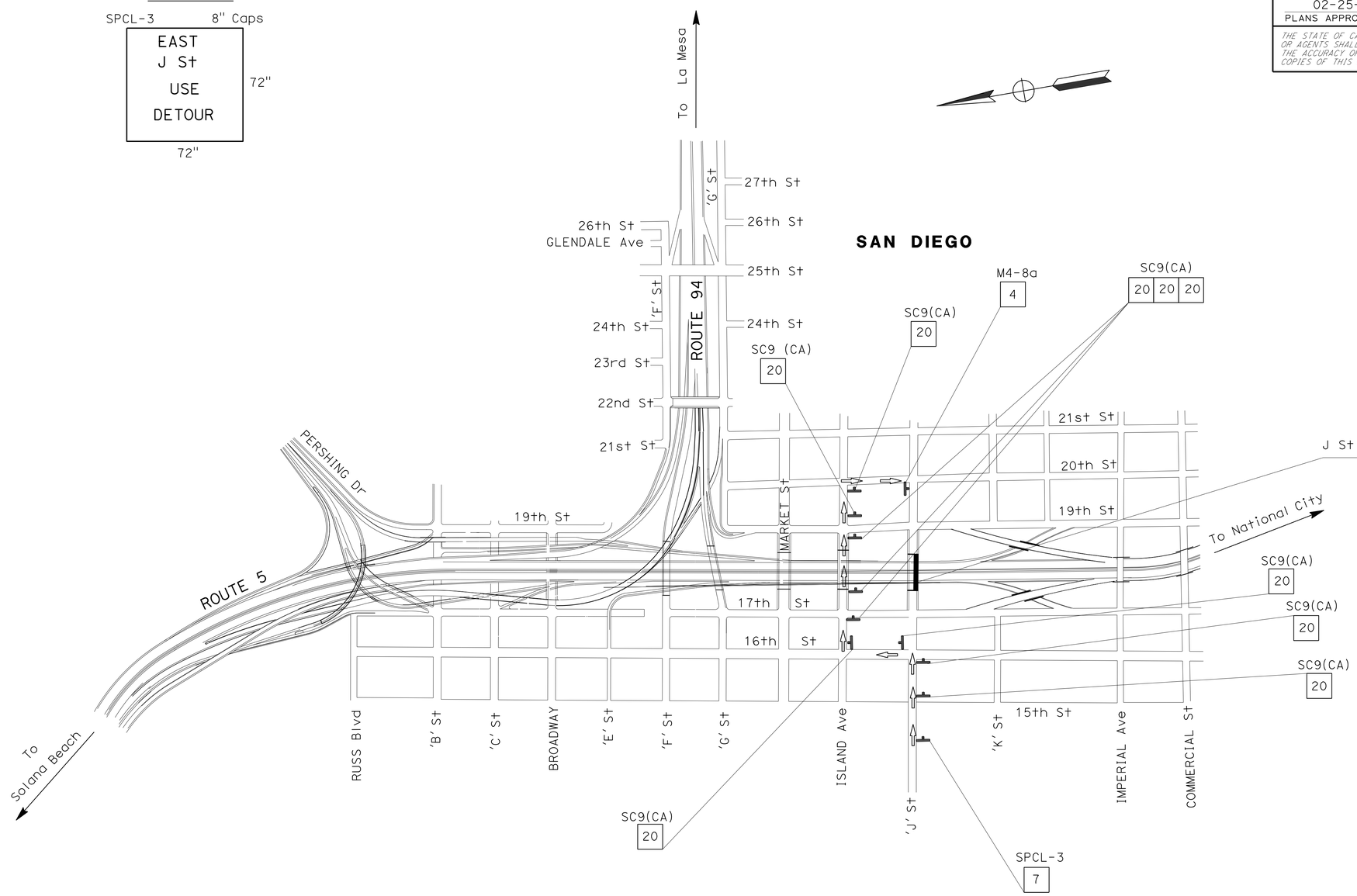


SIGN # 7

SPCL-3 8" Caps

EAST
J St
USE
DETOUR

72" × 72"




EB J St TO J St

# TRAFFIC HANDLING PLAN (LOCATION 3)

NO SCALE

TH-3

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON

CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 04-MAR-2013
02-12-13 | TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010

USERNAME => s127400
DGN FILE => 1112000123md003.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 2773

PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 6 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

MICHAEL H. VASQUEZ
No. C56329
Exp. 12-31-14
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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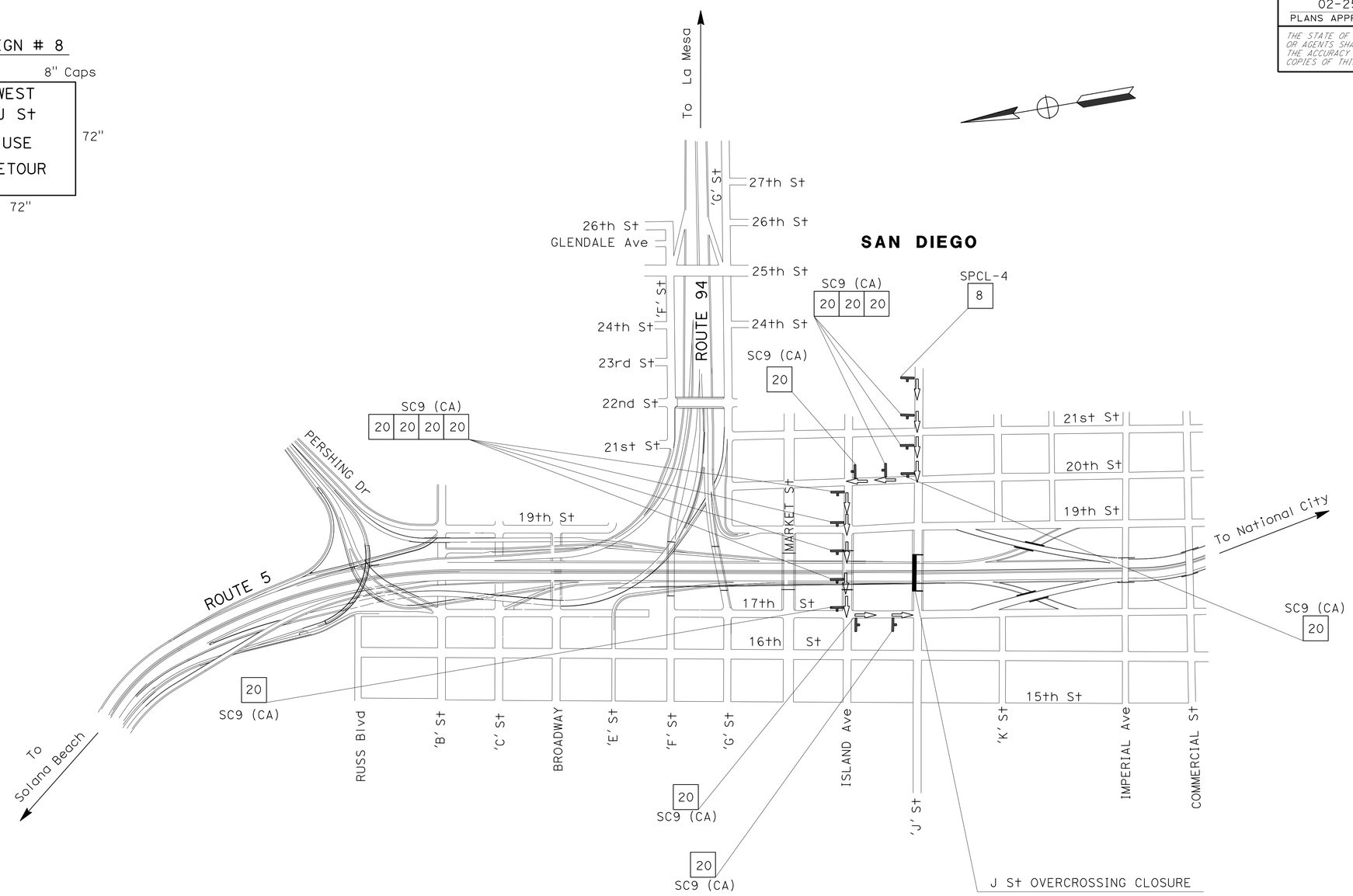
SIGN # 8

SPCL-4 8" Caps

WEST
J St
USE
DETOUR

72" x 72"




WB J St TO J St

# TRAFFIC HANDLING PLAN
## (LOCATION 3)

NO SCALE

**TH-4**

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
EYERUSALEM TADESSE
MICHAEL VASQUEZ
FUNCTIONAL SUPERVISOR
ALBERTO GAYON
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

LAST REVISION | DATE PLOTTED => 04-MAR-2013
02-12-13 | TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010
USERNAME => s127400
DGN FILE => 1112000123md004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2773
PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 7 | 47 |

REGISTERED CIVIL ENGINEER — DATE: 02-07-13

MICHAEL H. VASQUEZ No. C56329 Exp. 12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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

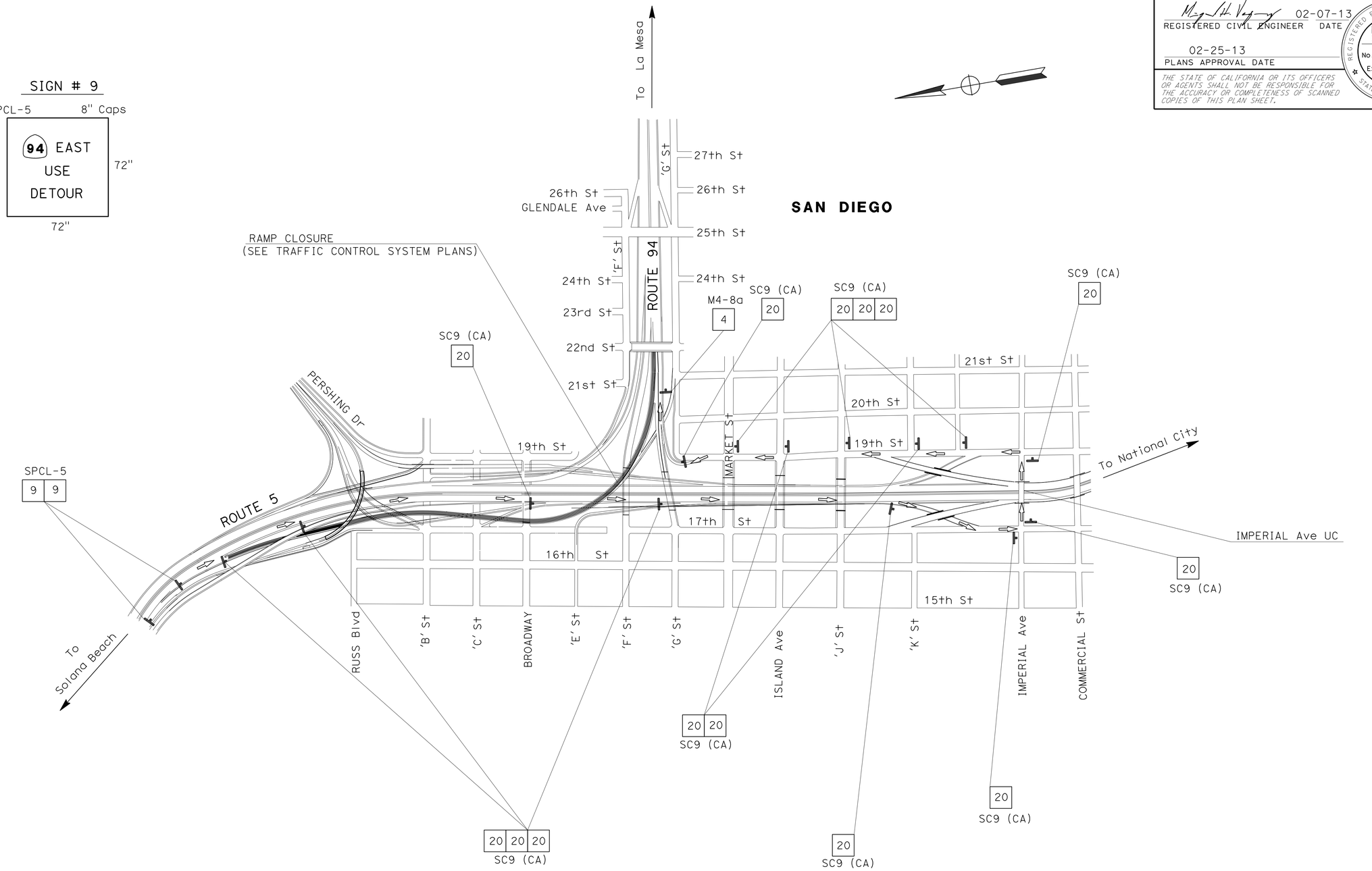
## SIGN # 9

SPCL-5 — 8" Caps

94 EAST
USE
DETOUR

72" × 72"

SPCL-5: 9 | 9




SB 5 CONNECTOR TO EB 94

# TRAFFIC HANDLING PLAN (LOCATION 4)

NO SCALE

TH-5

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans®

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY:
CHECKED BY:
DETAILED BY:
REVISED BY:
DATE REVISED:

EYERUSALEM TADESSE
MICHAEL VASQUEZ

LAST REVISION 02-12-13 | DATE PLOTTED => 04-MAR-2013 | TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010 | USERNAME => s127400 | DGN FILE => 1112000123md005.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 8 | 47 |

REGISTERED CIVIL ENGINEER — 02-07-13 DATE

MICHAEL H. VASQUEZ No. C56329 Exp. 12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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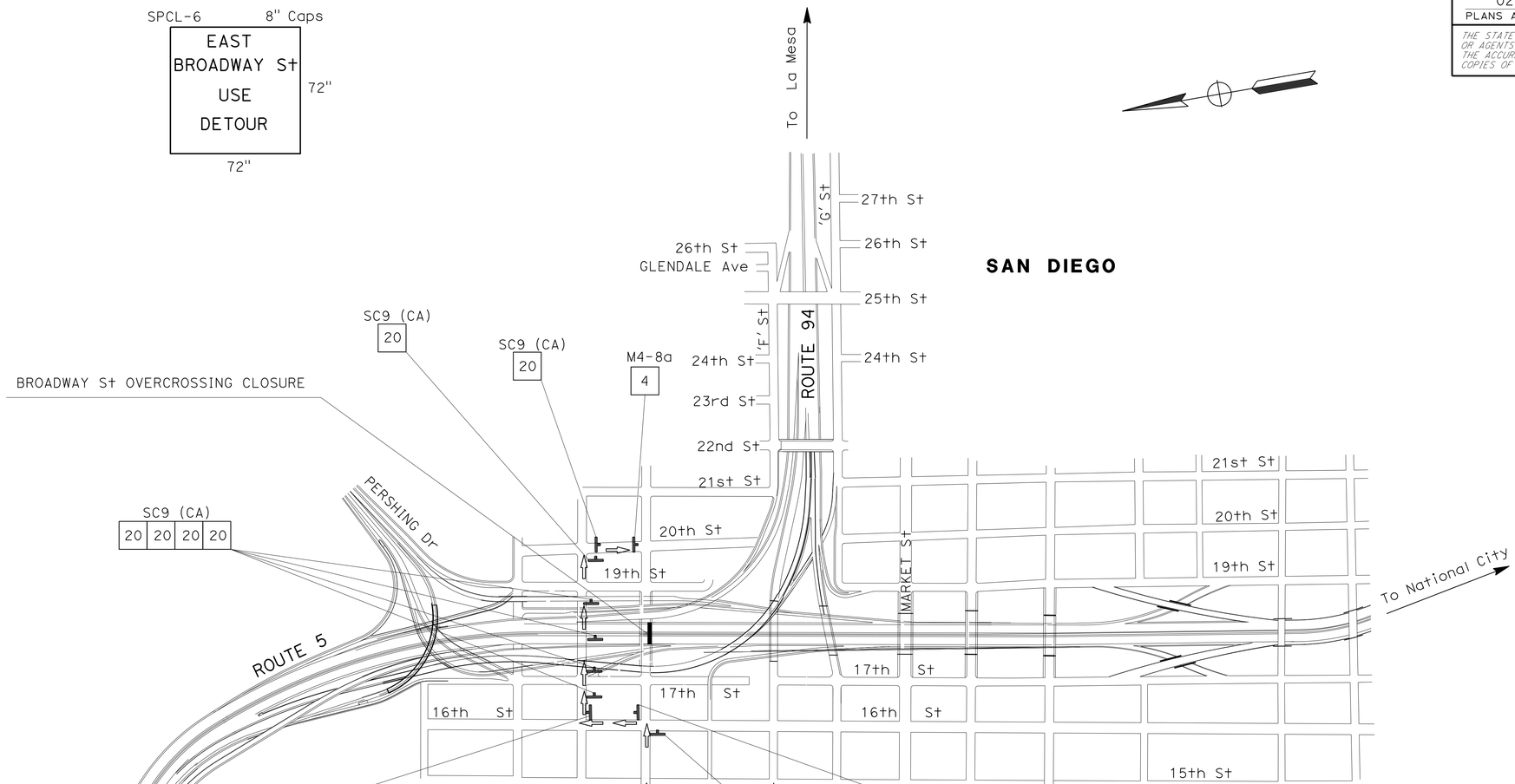
## SIGN # 10

SPCL-6 — 8" Caps

EAST
BROADWAY St
USE
DETOUR

72" × 72"




EB BROADWAY TO BROADWAY

# TRAFFIC HANDLING PLAN (LOCATION 5)

NO SCALE

**TH-6**

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY:
CHECKED BY: MICHAEL VASQUEZ
DRAWN BY: EYERUSALEM TADESSE
REVISED BY / DATE REVISED:

LAST REVISION 02-12-13 | DATE PLOTTED => 04-MAR-2013 | TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010 | USERNAME => s127400 | DGN FILE => 1112000123md006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 9 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

02-25-13
PLANS APPROVAL DATE

MICHAEL H. VASQUEZ No. C56329 Exp.12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

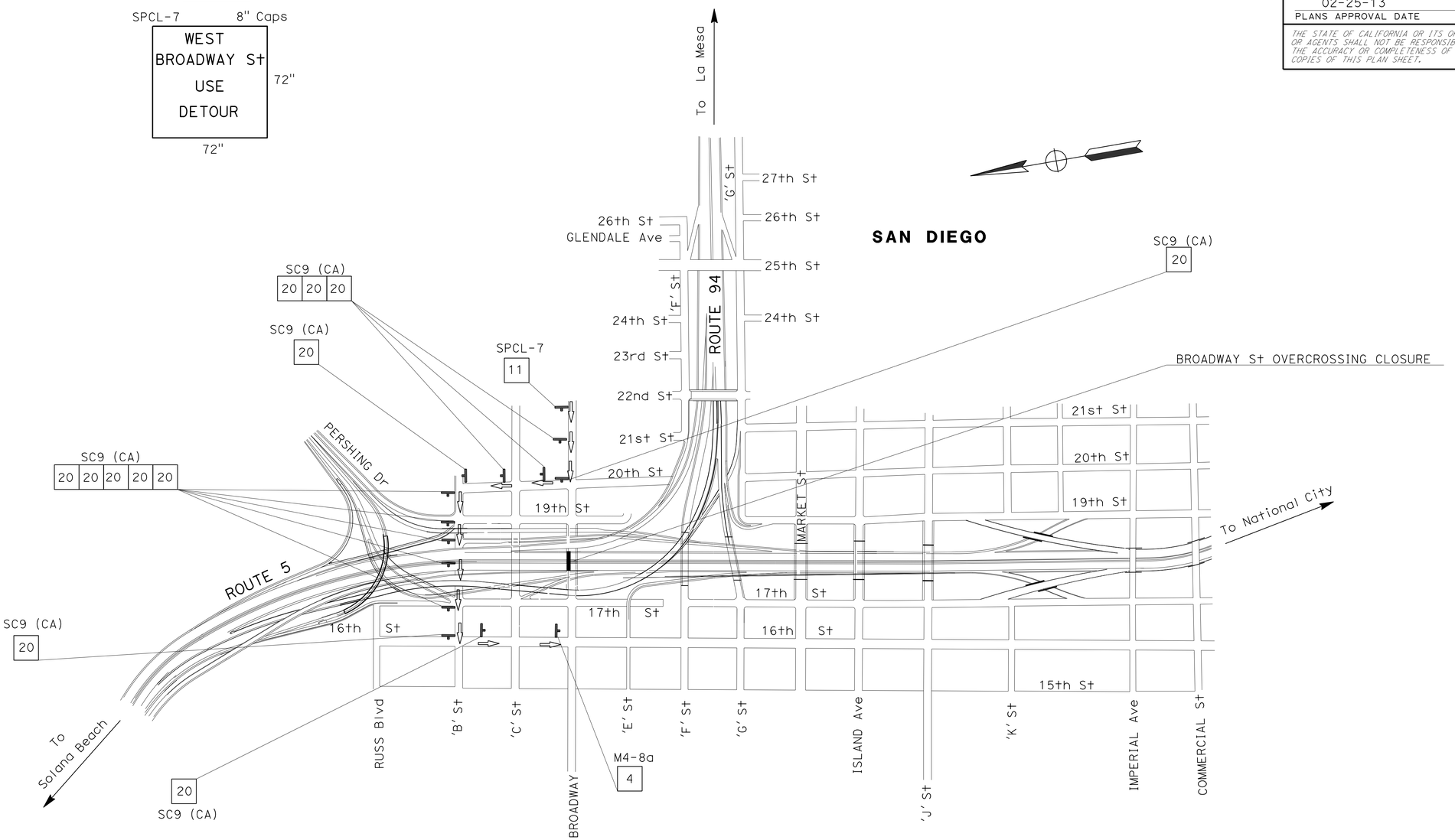
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

SIGN # 11

SPCL-7 8" Caps

WEST
BROADWAY St
USE
DETOUR

72" × 72"




WB BROADWAY TO BROADWAY

# TRAFFIC HANDLING PLAN (LOCATION 5)

NO SCALE

TH-7

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 04-MAR-2013
LAST REVISION TIME PLOTTED => 11:43
02-13-13

BORDER LAST REVISED 7/2/2010
USERNAME => s127400
DGN FILE => 11120001231md007.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2773
PROJECT NUMBER & PHASE 11120001231

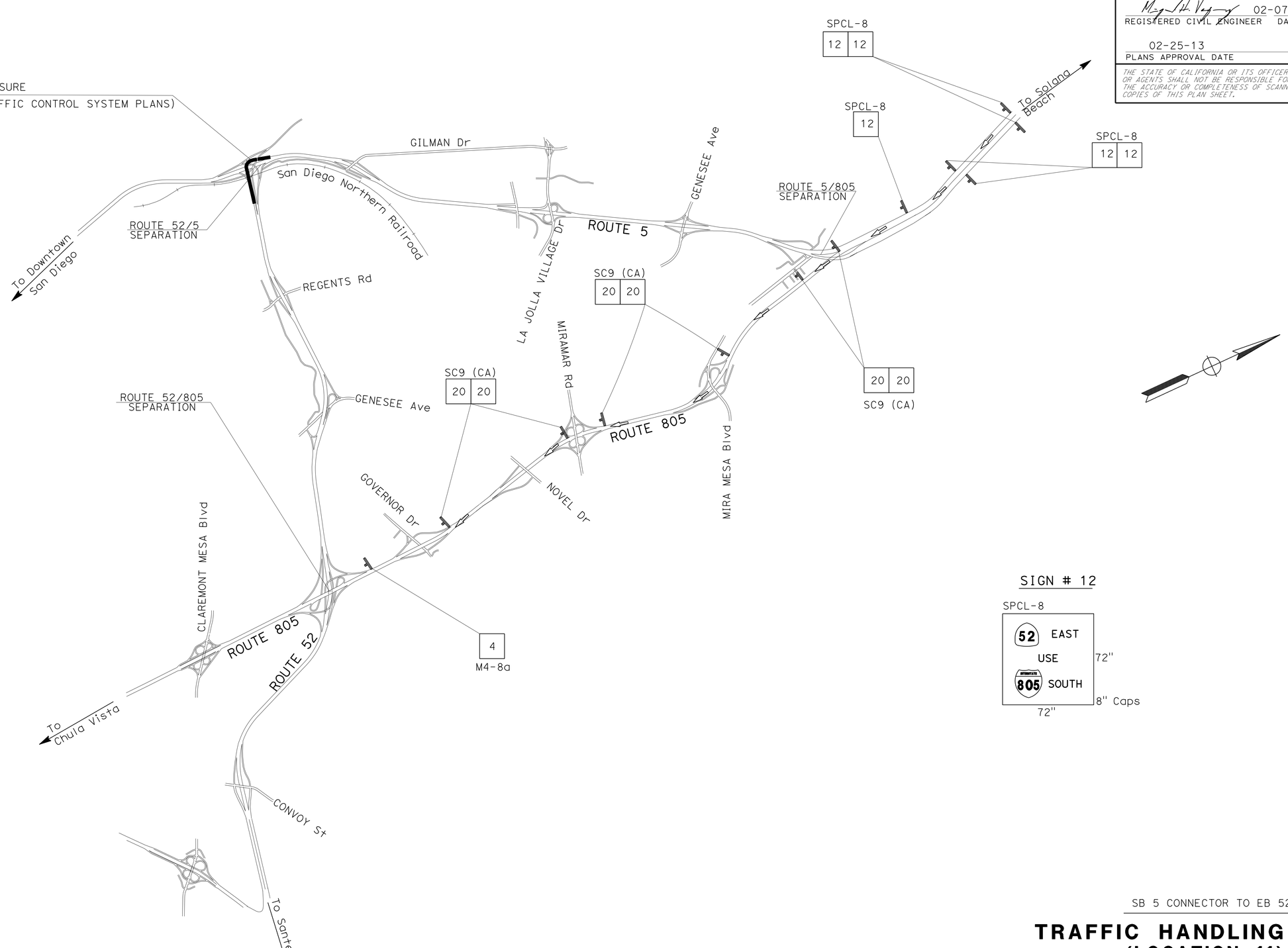
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 10 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL H. VASQUEZ
No. C56329
Exp.12/31/14
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.




SIGN # 12

SPCL-8

52 EAST
USE
805 SOUTH

72" × 8" Caps

APPROVED FOR TRAFFIC HANDLING WORK ONLY

SB 5 CONNECTOR TO EB 52

# TRAFFIC HANDLING PLAN (LOCATION 11)

NO SCALE

**TH-8**

CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ
FUNCTIONAL SUPERVISOR: ALBERTO GAYON
REVISED BY
DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE ENGINEERING

LAST REVISION: DATE PLOTTED => 04-MAR-2013
02-13-13 TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010

USERNAME => s127400
DGN FILE => 1112000123md008.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 2773

PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 11 | 47 |

REGISTERED CIVIL ENGINEER — 02-07-13 DATE

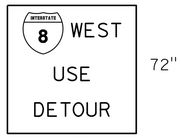
MICHAEL H. VASQUEZ No. C56329 Exp 12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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

## SIGN # 13

SPCL-9 8" Caps







**EL CAJON**

SB 67 CONNECTOR TO WB 8

# TRAFFIC HANDLING PLAN (LOCATION 19)

NO SCALE

**TH-9**

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
**MAINTENANCE ENGINEERING**
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ
REVISED BY / DATE REVISED

LAST REVISION | DATE PLOTTED => 04-MAR-2013
02-14-13 | TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010 | USERNAME => s127400 | DGN FILE => 1112000123md009.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

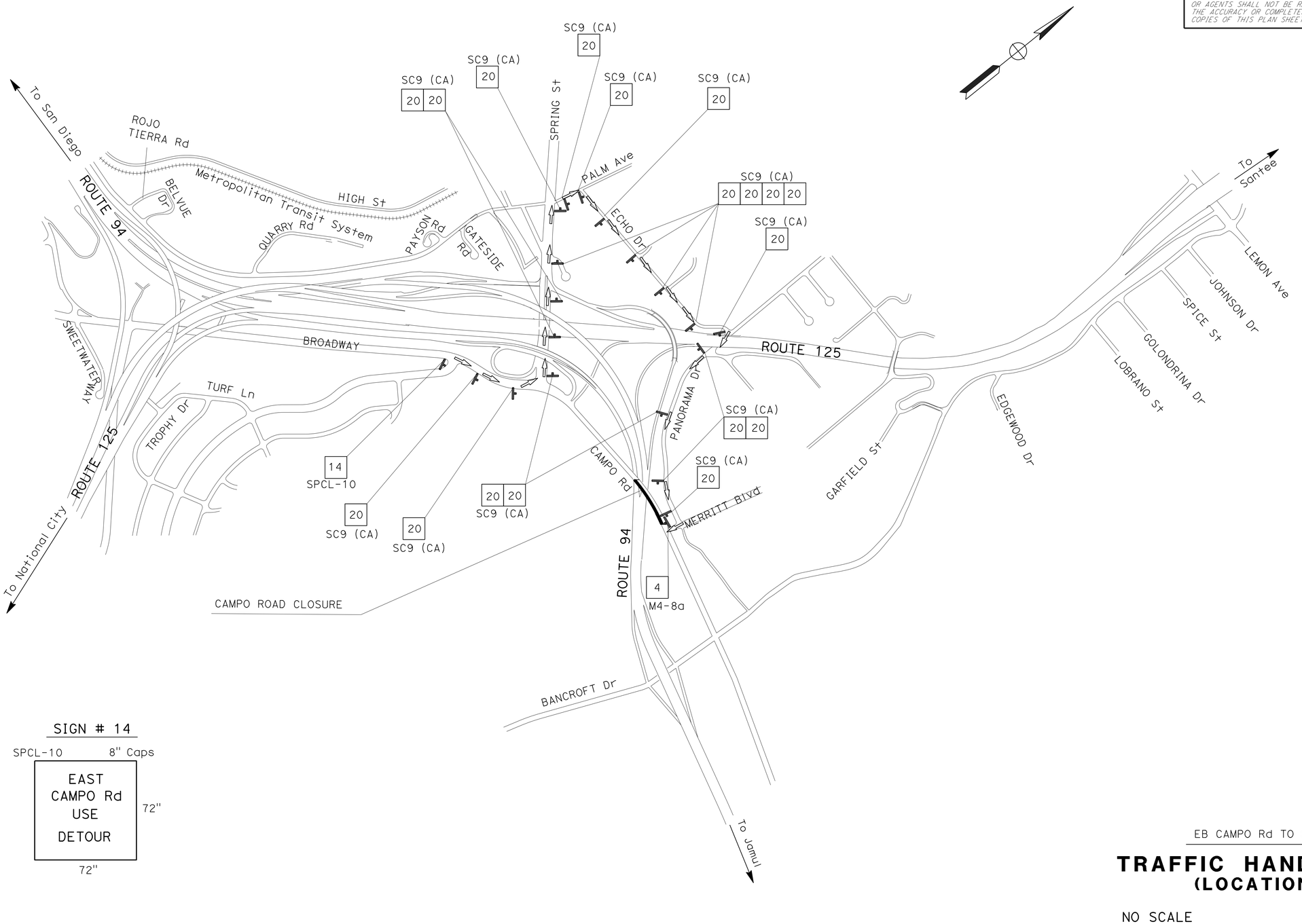
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 12 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

MICHAEL H. VASQUEZ
No. C56329
Exp. 12-31-14
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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




SIGN # 14

SPCL-10 8" Caps

EAST
CAMPO Rd
USE
DETOUR

72" × 72"

EB CAMPO Rd TO CAMPO Rd

# TRAFFIC HANDLING PLAN (LOCATION 21)

NO SCALE

**TH-10**

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY
CHECKED BY
DRAWN
REVISED BY
DATE REVISED

EYERUSALEM TADESSE
MICHAEL VASQUEZ

LAST REVISION 02-14-13
DATE PLOTTED => 04-MAR-2013
TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010
USERNAME => s127400
DGN FILE => 1112000123md010.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2773
PROJECT NUMBER & PHASE 11120001231

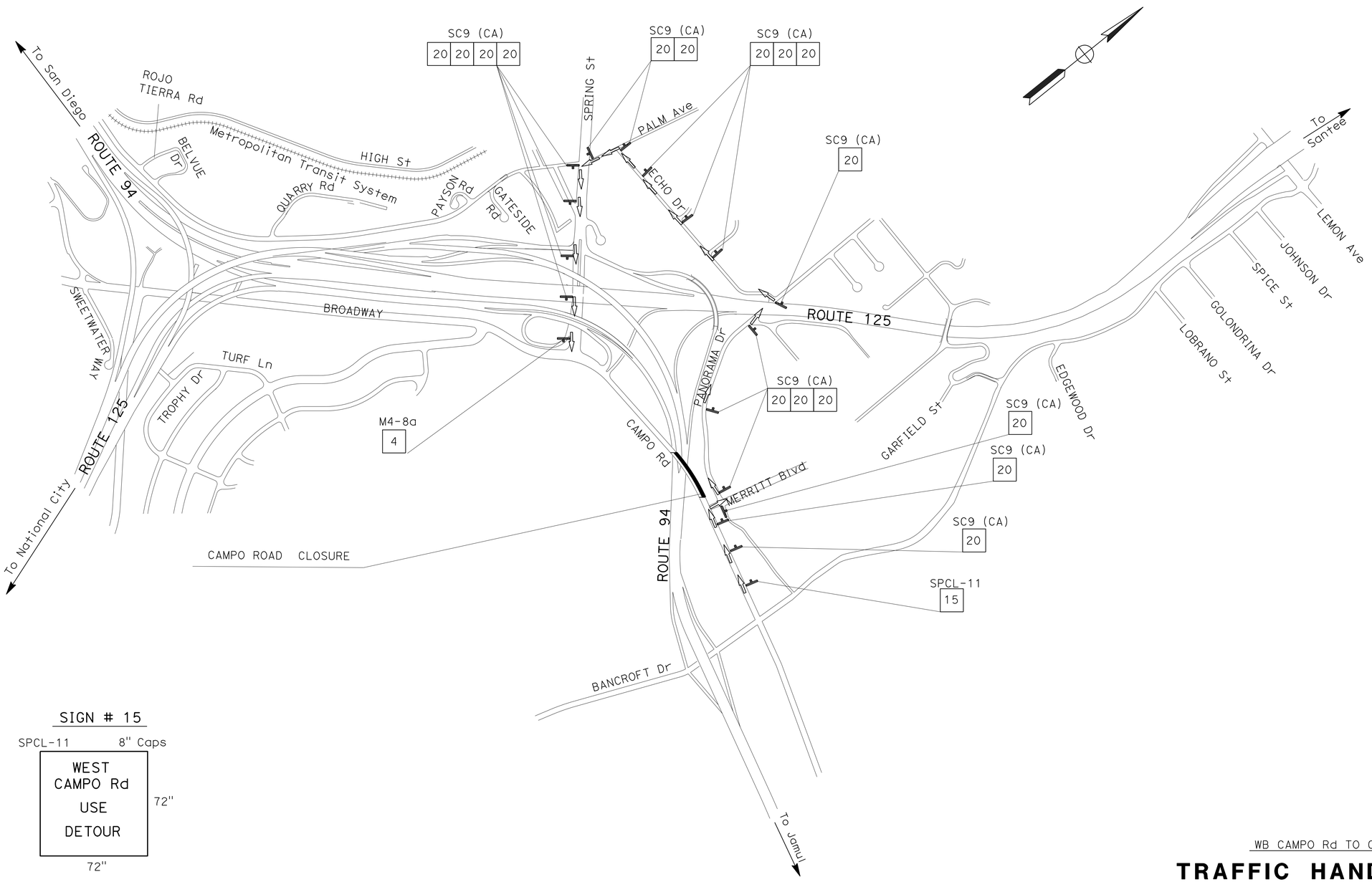
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 13 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL H. VASQUEZ
No. C56329
Exp. 12-31-14
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.




SIGN # 15

SPCL-11 8" Caps

WEST
CAMPO Rd
USE
DETOUR

72" x 72"

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

WB CAMPO Rd TO CAMPO Rd

# TRAFFIC HANDLING PLAN (LOCATION 21)

NO SCALE

**TH-11**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ
REVISED BY
DATE REVISED

LAST REVISION 02-14-13
DATE PLOTTED => 04-MAR-2013
TIME PLOTTED => 11:43

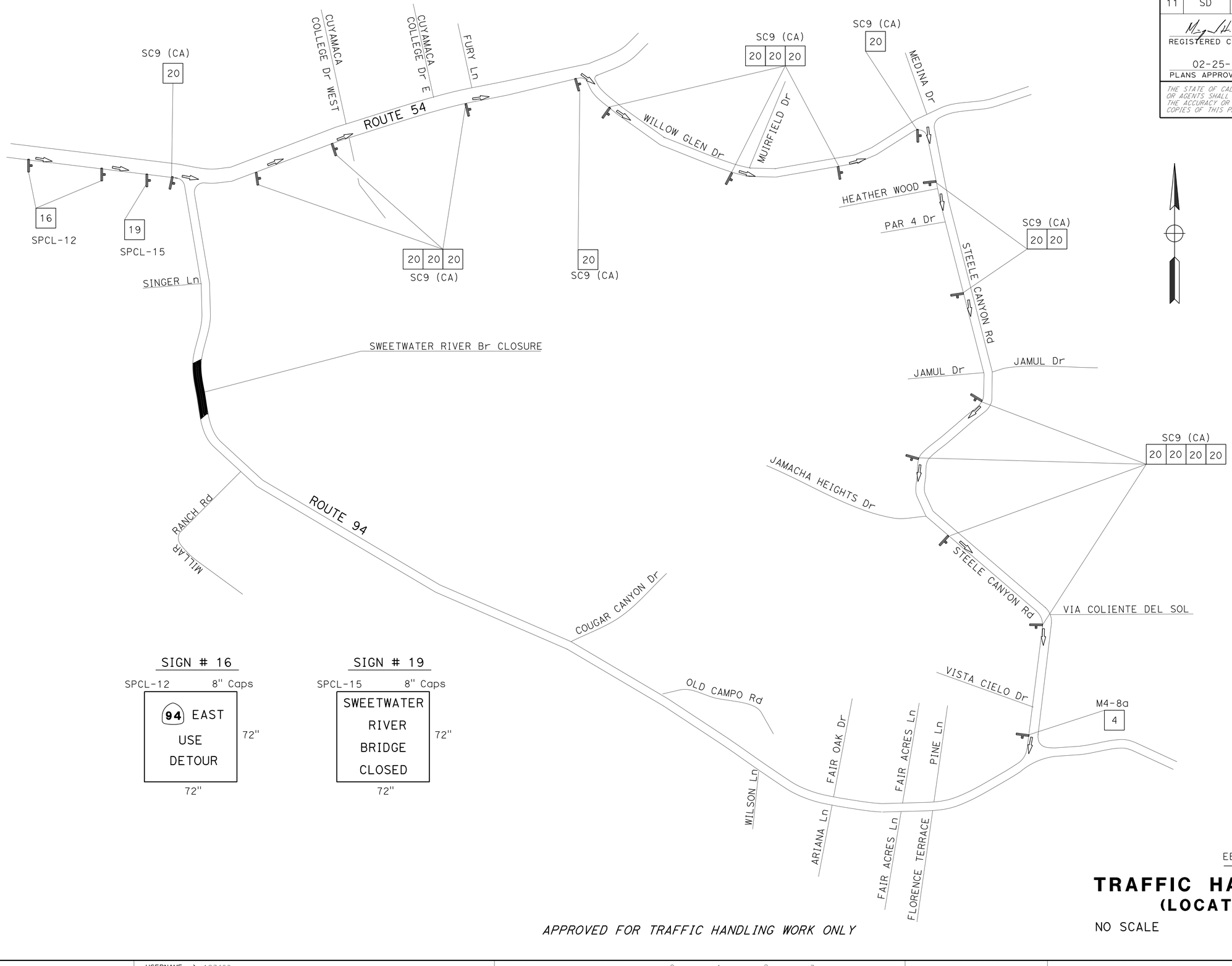
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 14 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

MICHAEL H. VASQUEZ No. C56329 Exp.12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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




SIGN # 16

SPCL-12 8" Caps

94 EAST
USE
DETOUR

72" × 72"

SIGN # 19

SPCL-15 8" Caps

SWEETWATER
RIVER
BRIDGE
CLOSED

72" × 72"

EB 94 TO EB 54

# TRAFFIC HANDLING PLAN (LOCATION 22)

NO SCALE

TH-12

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

CALCULATED- DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR
ALBERTO GAYON

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans®

EYERUSALEM TADESSE
MICHAEL VASQUEZ

REVISED BY
DATE REVISED

LAST REVISION 02-14-13
DATE PLOTTED => 04-MAR-2013
TIME PLOTTED => 11:43

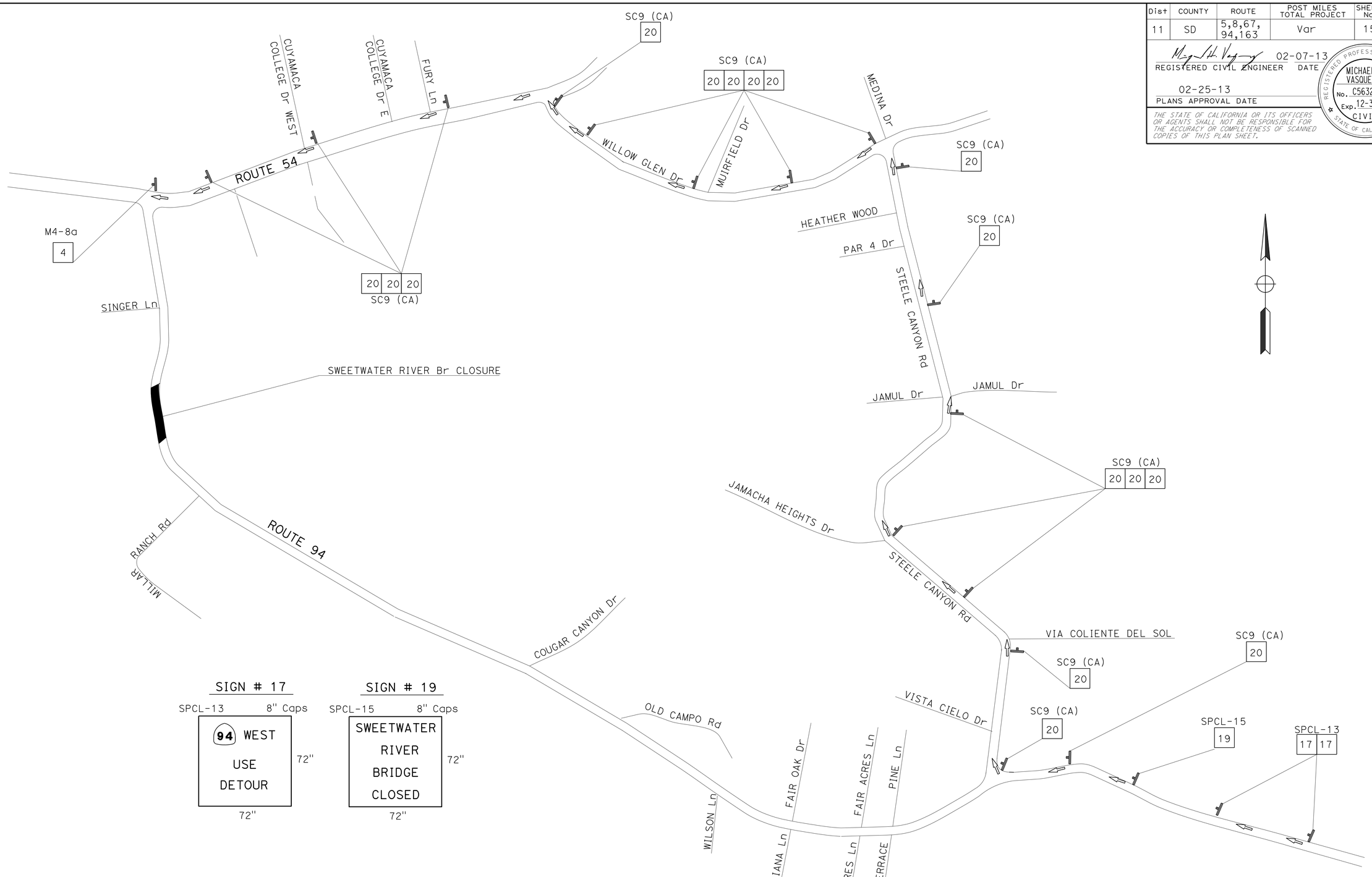
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 15 | 47 |

REGISTERED CIVIL ENGINEER — DATE: 02-07-13

MICHAEL H. VASQUEZ No. C56329 Exp. 12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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




SIGN # 17

SPCL-13 8" Caps

94 WEST
USE
DETOUR

72" × 72"

SIGN # 19

SPCL-15 8" Caps

SWEETWATER
RIVER
BRIDGE
CLOSED

72" × 72"

WB 94 TO WB 54

# TRAFFIC HANDLING PLAN
## (LOCATION 22)

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

NO SCALE

**TH-13**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ
REVISED BY
DATE REVISED

LAST REVISION: DATE PLOTTED => 04-MAR-2013 TIME PLOTTED => 11:43
02-14-13

BORDER LAST REVISED 7/2/2010
USERNAME => s127400
DGN FILE => 1112000123md013.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2773
PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 16 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

MICHAEL H. VASQUEZ No. C56329 Exp. 12-31-14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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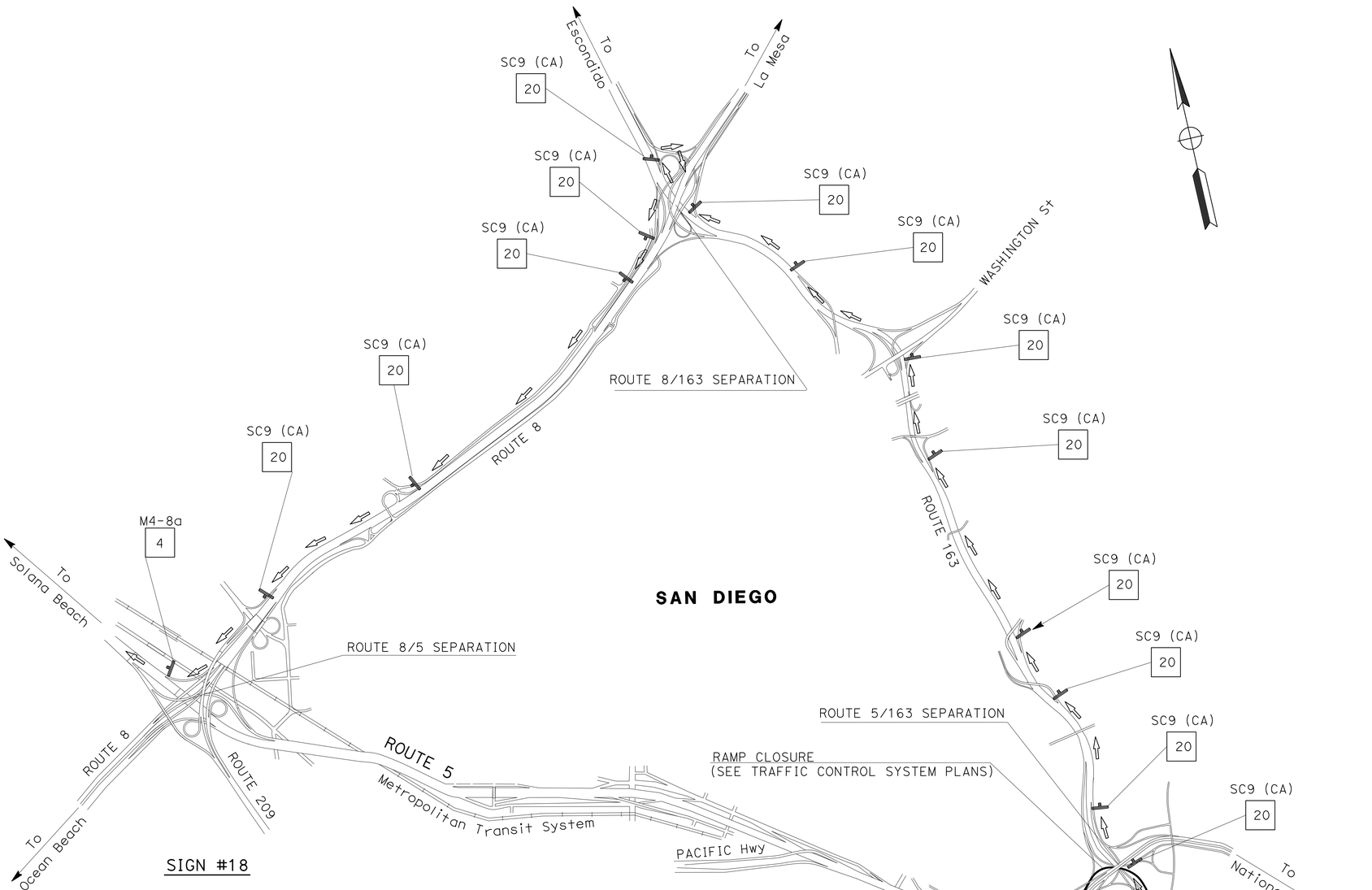



SIGN #18

SPCL-14 8" Caps

| | |
|---|---|
| 5 | NORTH |
| 163 | USE NORTH TO WEST |
| 8 | |

72" × 72"

NB 163 CONNECTOR TO NB 5

# TRAFFIC HANDLING PLAN (LOCATION 23)

NO SCALE

TH-14

*APPROVED FOR TRAFFIC HANDLING WORK ONLY*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY:
CHECKED BY:
REVISED BY / DATE REVISED
EYERUSALEM TADESSE
MICHAEL VASQUEZ

LAST REVISION DATE PLOTTED => 04-MAR-2013
TIME PLOTTED => 11:43
02-14-13

BORDER LAST REVISED 7/2/2010
USERNAME => s127400
DGN FILE => 1112000123md014.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2773
PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 17 | 47 |

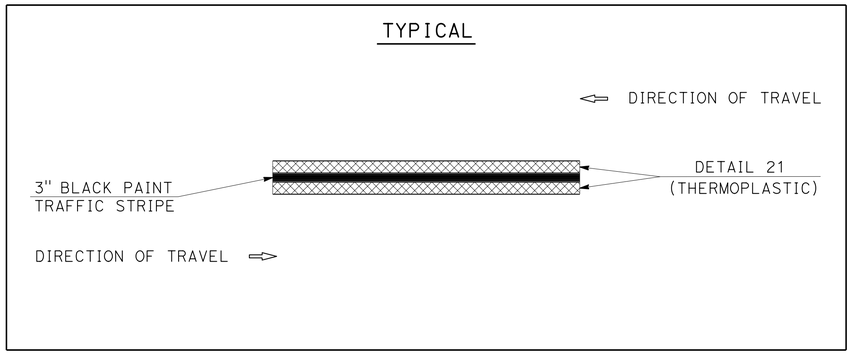
REGISTERED CIVIL ENGINEER — DATE: 02-07-13

MICHAEL H. VASQUEZ No. C56329 Exp. 12/31/14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

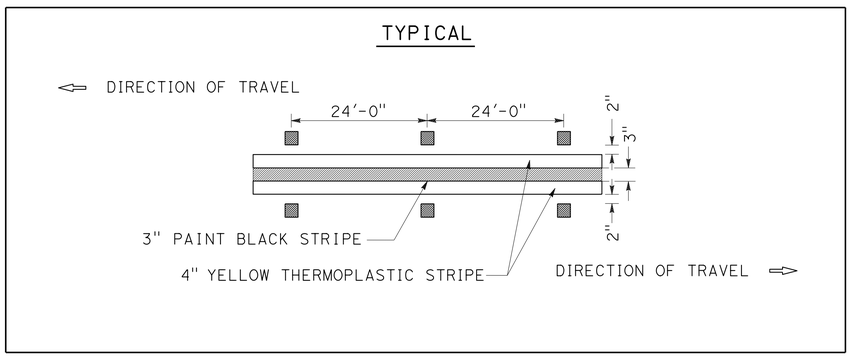
02-25-13
PLANS APPROVAL DATE



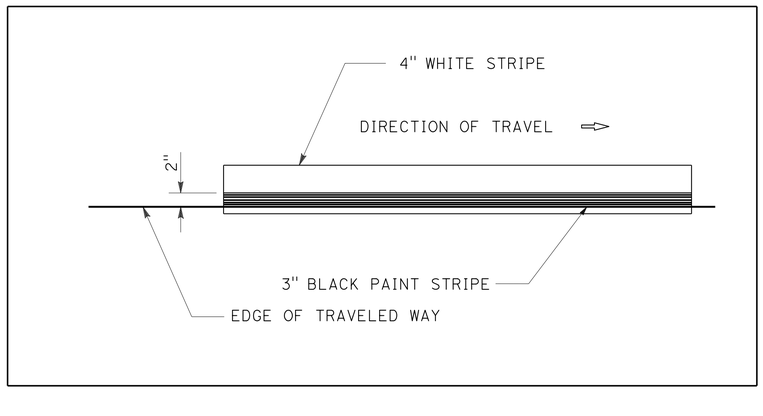
## DETAIL 21 (Mod)



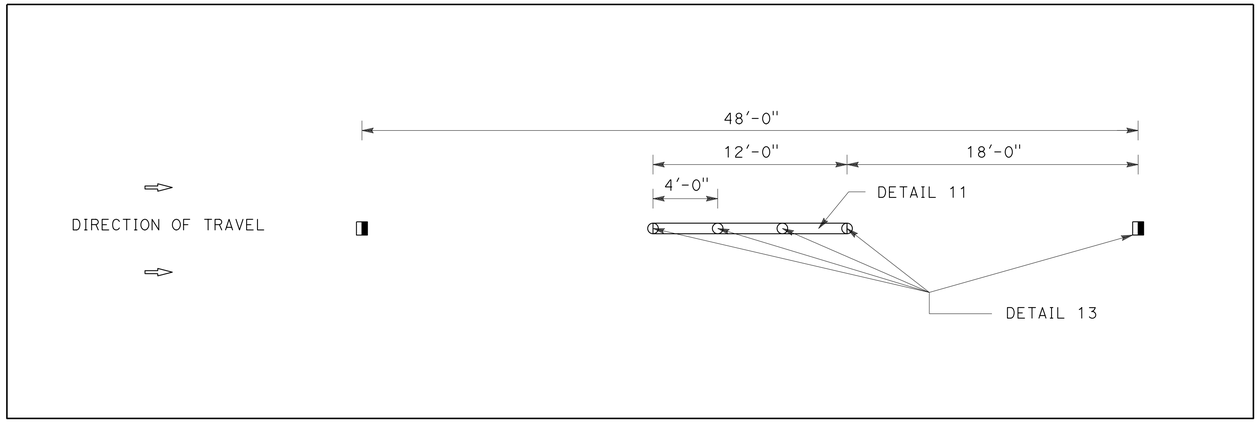

## DETAIL 22 (Mod)



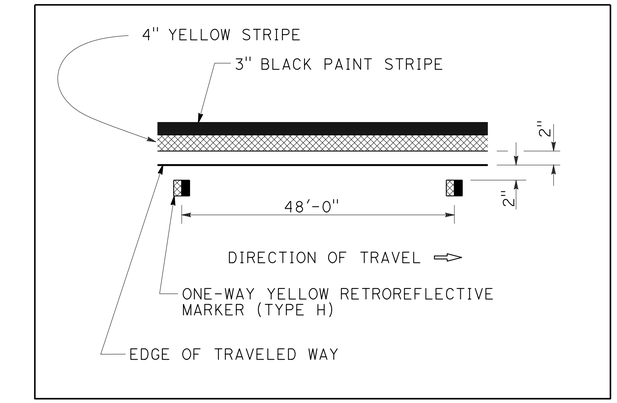

## DETAIL 27B (Mod)




## DETAIL 11/13 COMBINATION




## DETAIL 25 (Mod)




# PAVEMENT DELINEATION DETAILS

NO SCALE

**PDD-1**

REVISED BY | DATE REVISED
EYERUSALEM TADESSE | MICHAEL VASQUEZ
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: ALBERTO GAYON

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
MAINTENANCE ENGINEERING

LAST REVISION | DATE PLOTTED => 04-MAR-2013
02-14-13 | TIME PLOTTED => 11:43

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 18 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

02-25-13
PLANS APPROVAL DATE

MICHAEL H. VASQUEZ No. C56329 Exp.12/31/14 CIVIL — REGISTERED PROFESSIONAL ENGINEER — 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.

## REMOVE PAINTED TRAFFIC STRIPE

| LOCATION | ROUTE | POSTMILE | BRIDGE No. | DETAIL | LF |
|---|---|---|---|---|---|
| 1 | 5 | R13.90 | **57- 0846G** | 11/13, 25 (Mod), 27B (Mod) | 4,129 |
| 2 | 5 | R14.16 | 57- 0939H | 11/13, 25 (Mod), 27B (Mod), 8 | 9,437 |
| 3 | 5 | R14.74 | 57- 0451 | 21 (Mod) | 756 |
| 4 | 5 | R15.00 | 57-0418S | 25(Mod), 27B (Mod) | 886 |
| 5 | 5 | R15.18 | 57-0423 | 9, 22(Mod) | 1,274 |
| 9 | 5 | R22.87 | 57-0287R | 11/13, 25 (Mod), 27B (Mod) | 478 |
| 11 | 5 | R25.93 | 57-0519F | 11/13, 25 (Mod), 27B (Mod), | 911 |
| 16 | 8 | 14.95 | 57-0369 | 11/13, 25 (Mod), 27B (Mod) | 2,494 |
| 18 | 8 | R56.78 | 57-0756R | 11, 27B (Mod), 25 (Mod)* | 3,506 |
| 19 | 67 | R0.16 | 57-0557F | 11/13, 27B (Mod), 25 (Mod)* | 888 |
| 20 | 67 | R5.19 | 57-0562L | 11/13, 25 (Mod), 27B (Mod) | 503 |
| 21 | 94 | R10.72 | 57-0803 | 22(Mod), 27B | 3,126 |
| 22 | 94 | 15.27 | 57-0962 | 27B (Mod), 22 (Mod)* | 2,450 |
| 23 | 163 | 0.88 | 57-0932G | 25 (Mod)* | 408 |
| | | | | TOTAL | 31,246 |

* - BLACK PAINT ONLY.

## REMOVE YELLOW PAINTED TRAFFIC STRIPE (HAZARDOUS WASTE)

| LOCATION | ROUTE | POSTMILE | BRIDGE No. | DETAIL | LF |
|---|---|---|---|---|---|
| 18 | 8 | R56.78 | 57-0756R | 25 (Mod) | 1,275 |
| 19 | 67 | R0.16 | 57-0557F | 25 (Mod) | 323 |
| 22 | 94 | 15.27 | 57-0962 | 22 (Mod) | 980 |
| 23 | 163 | 0.88 | 57-0392G | 25 (Mod) | 544 |
| | | | | TOTAL | 3,122 |

## REMOVE PAVEMENT MARKER (EA) (N)

| LOCATION | ROUTE | POSTMILE | BRIDGE No. | TYPE | | | |
|---|---|---|---|---|---|---|---|
| | | | | A | D | G | H |
| 1 | 5 | R13.90 | 57-0486G | 92 | | 24 | 23 |
| 2 | 5 | R14.16 | 57-0939H | 148 | | 16 | 15 |
| 4 | 5 | R15.00 | 57-0418S | | | | 7 |
| 5 | 5 | R15.18 | 57-0423 | | 34 | 17 | |
| 9 | 5 | R22.87 | 57-0287R | 28 | | 8 | 2 |
| 11 | 5 | R25.93 | 57-0519F | 20 | | 6 | 7 |
| 16 | 8 | 14.95 | 57-0369 | 140 | | 67 | 12 |
| 18 | 8 | R56.78 | 57-0756R | | | | 27 |
| 19 | 67 | R0.16 | 57-0557F | 28 | | 8 | 7 |
| 20 | 67 | R5.19 | 57-0562L | 12 | | 4 | 3 |
| 21 | 94 | R10.72 | 57-0803 | | 57 | | |
| 22 | 94 | 15.27 | 57-0962 | | 43 | | |
| 23 | 163 | 0.88 | 57-0392G | | | 24 | 11 |
| | | | SUBTOTAL | 468 | 134 | 174 | 114 |
| | | | TOTAL | 890 | | | |

(N) NOT A SEPARATE PAY ITEM FOR INFORMATION ONLY

## REMOVE THERMOPLASTIC TRAFFIC STRIPE

| LOCATION | ROUTE | POSTMILE | BRIDGE No. | DETAIL | LF |
|---|---|---|---|---|---|
| 2 | 5 | R14.16 | 57-0939H | 36A | 230 |
| 16 | 8 | 14.95 | 57-0369 | 37 | 225 |
| 23 | 163 | 0.88 | 57-0392G | 38 | 1,088 |
| | | | | TOTAL | 1,543 |

## THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)

| LOCATION | ROUTE | 8" 45 DEGREE DIAGONAL SQFT |
|---|---|---|
| 23 | 163 | 820 |
| | TOTAL | 820 |

## REMOVE THERMOPLASTIC PAVEMENT MARKING

| LOCATION | ROUTE | 8" 45 DEGREE DIAGONAL SQFT |
|---|---|---|
| 23 | 163 | 820 |
| | TOTAL | 820 |

# PAVEMENT DELINEATION QUANTITIES

**PDQ-1**

REVISED BY | DATE REVISED
EYERUSALEM TADESSE | MICHAEL VASQUEZ
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: ALBERTO GAYON
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
Caltrans

LAST REVISION | DATE PLOTTED => 04-MAR-2013
02-14-13 | TIME PLOTTED => 11:43

BORDER LAST REVISED 7/2/2010 | USERNAME => s127400 | DGN FILE => 1112000123nc001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 19 | 47 |

02-07-13
REGISTERED CIVIL ENGINEER DATE

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL H. VASQUEZ
No. C56329
Exp.12/31/14
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.

# PAVEMENT DELINEATION QUANTITIES

| LOCATION | | | PAVEMENT MARKER SUMMARY | | | | TRAFFIC STRIPE SUMMARY | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PAVEMENT MARKER (EA) | | | | PAINT (1 COAT) | THERMOPLASTIC ENHANCED WET NIGHT VISIBILITY (LF) | | | | |
| | | | NON-REFLECTIVE | RETROREFLECTIVE | | | | 4 INCH | | | 8 INCH | |
| LOCATION | ROUTE | DETAIL No. | TYPE A WHITE | TYPE D YELLOW | TYPE G CLEAR | TYPE H YELLOW | 3"-BLACK (LF) | SOLID 4" | BROKEN 36'-12' | BROKEN 17'-7' | SOLID 8' | BROKEN 12'-3' |
| 1 | 5 | 11/13 | 92 | | 24 | | | | 1,101 | | | |
| | | 25 (Mod) | | | | 23 | 1,101 | 1,101 | | | | |
| | | 27B (Mod) | | | | | 1,101 | 1,101 | | | | |
| 2 | 5 | 8 | | | | | | | | 130 | | |
| | | 36A | | | 6 | | | | | | 115 | |
| | | 11/13 | 148 | | 38 | | | | 1,790 | | | |
| | | 25 (Mod) | | | | 52 | 2,500 | 2,500 | | | | |
| | | 27B (Mod) | | | | | 2,615 | 2,615 | | | | |
| 3 | 5 | 21 (Mod) | | | | | 275 | 550 | | | | |
| 4 | 5 | 25 (Mod) | | | | 7 | 253 | 253 | | | | |
| | | 27B (Mod) | | | | | 253 | 253 | | | | |
| 5 | 5 | 9 | | | 17 | | | | | 764 | | |
| | | 22 (Mod) | | 34 | | | 382 | 764 | | | | |
| 9 | 5 | 11/13 | 28 | | 8 | | | | 325 | | | |
| | | 25 (Mod) | | | | 2 | 87 | 87 | | | | |
| | | 27B (Mod) | | | | | 138 | 138 | | | | |
| 11 | 5 | 11/13 | 20 | | 6 | | | | 243 | | | |
| | | 25 (Mod) | | | | 7 | 243 | 243 | | | | |
| | | 27B (Mod) | | | | | 243 | 243 | | | | |
| 16 | 8 | 11/13 | 140 | | 36 | | | | 1,686 | | | |
| | | 25 (Mod) | | | | 12 | 592 | 592 | | | | |
| | | 27B (Mod) | | | | | 592 | 592 | | | | |
| | | 37 | | | 31 | | | | | | | 592 |
| 18 | 8 | 11 | | | | | | | 1,275 | | | |
| | | 25 (Mod) | | | | 27 | 1,275 | 1,275 | | | | |
| | | 27B (Mod) | | | | | 1,275 | 1,275 | | | | |
| 19 | 67 | 11/13 | 28 | | 8 | | | | 323 | | | |
| | | 25 (Mod) | | | | 7 | 323 | 323 | | | | |
| | | 27B (Mod) | | | | | 323 | 323 | | | | |
| 20 | 67 | 11/13 | 12 | | 4 | | | | 134 | | | |
| | | 25 (Mod) | | | | 3 | 134 | 134 | | | | |
| | | 27B (Mod) | | | | | 134 | 134 | | | | |
| 21 | 94 | 22(Mod) | | 57 | | | 658 | 1,316 | | | | |
| | | 27B | | | | | 1,316 | 1,316 | | | | |
| 22 | 94 | 27B (Mod) | | | | | 980 | 980 | | | | |
| | | 22(Mod) | | 43 | | | 490 | 980 | | | | |
| 23 | 163 | 25 (Mod) | | | | 11 | 544 | 544 | | | | |
| | | 38 | | | 24 | | | | | | 544 | |
| | | | | | | | | | | | | |
| SUB TOTAL | | | 468 | 134 | 202 | 151 | 17,827 | 19,632 | 6,877 | 894 | 659 | 592 |
| TOTAL | | | 468 | 487 | | | 17,827 | 19,632 | 6,877 | 894 | 659 | 592 |

# PAVEMENT DELINEATION QUANTITIES
# PDQ-2

LAST REVISION | DATE PLOTTED => 04-MAR-2013
02-14-13 | TIME PLOTTED => 11:43

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: ALBERTO GAYON
CALCULATED-DESIGNED BY: EYERUSALEM TADESSE
CHECKED BY: MICHAEL VASQUEZ
REVISED BY | DATE REVISED

BORDER LAST REVISED 7/2/2010
USERNAME => s127400
DGN FILE => 1112000123nc002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2773
PROJECT NUMBER & PHASE 11120001231

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 20 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

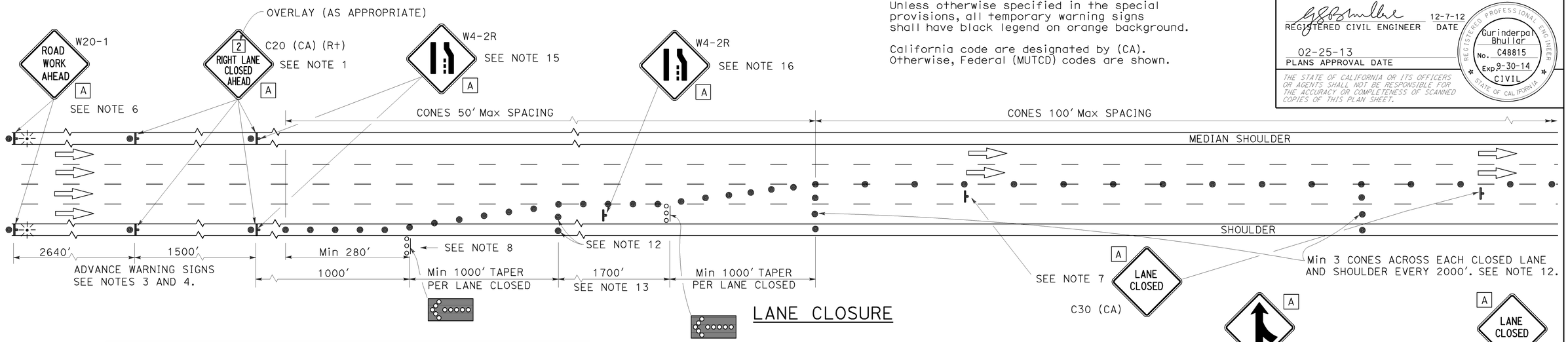
Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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.

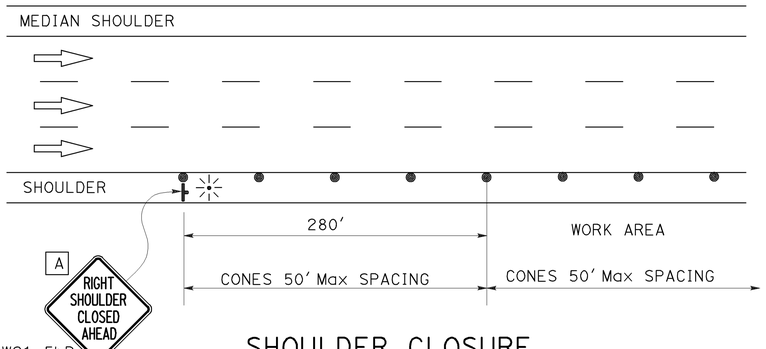
## NOTES:

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

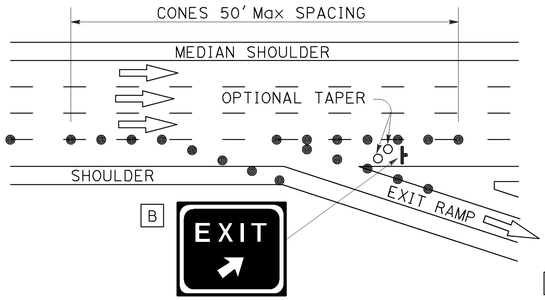
California code are designated by (CA).
Otherwise, Federal (MUTCD) codes are shown.



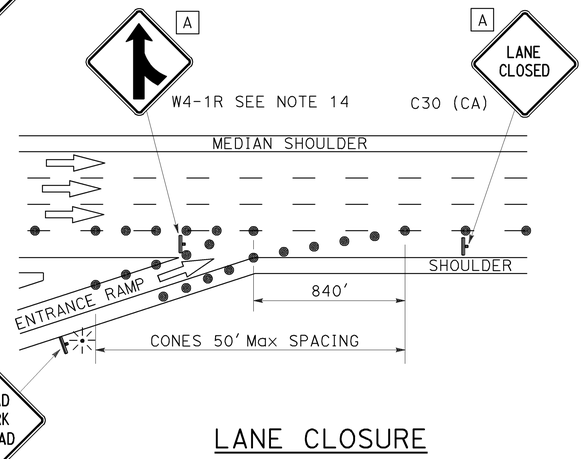

## LANE CLOSURE




## SHOULDER CLOSURE




## LANE CLOSURE AT EXIT RAMP




## LANE CLOSURE AT ENTRANCE RAMP

## NOTES:

1. Median lane closures shall conform to the details for outside lane closures except that C20 (CA) (Lt) 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 C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "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 first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
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 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the G84 (CA) and W4-1 signs shall be used as shown.
15. When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.
16. The W4-2 "LANE ENDS" symbol sign shown at this location is to be used where the W4-2 sign is used as advance warning as described in Note 15.

### SIGN PANEL SIZE (Min)

| | |
|---|---|
| A | 48" × 48" |
| B | 54" × 48" |

### LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

**TCS-1**

REVISED BY | DATE REVISED
CALCULATED- | DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 10-DEC-2012
00-00-00 | TIME PLOTTED => 09:45

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 21 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

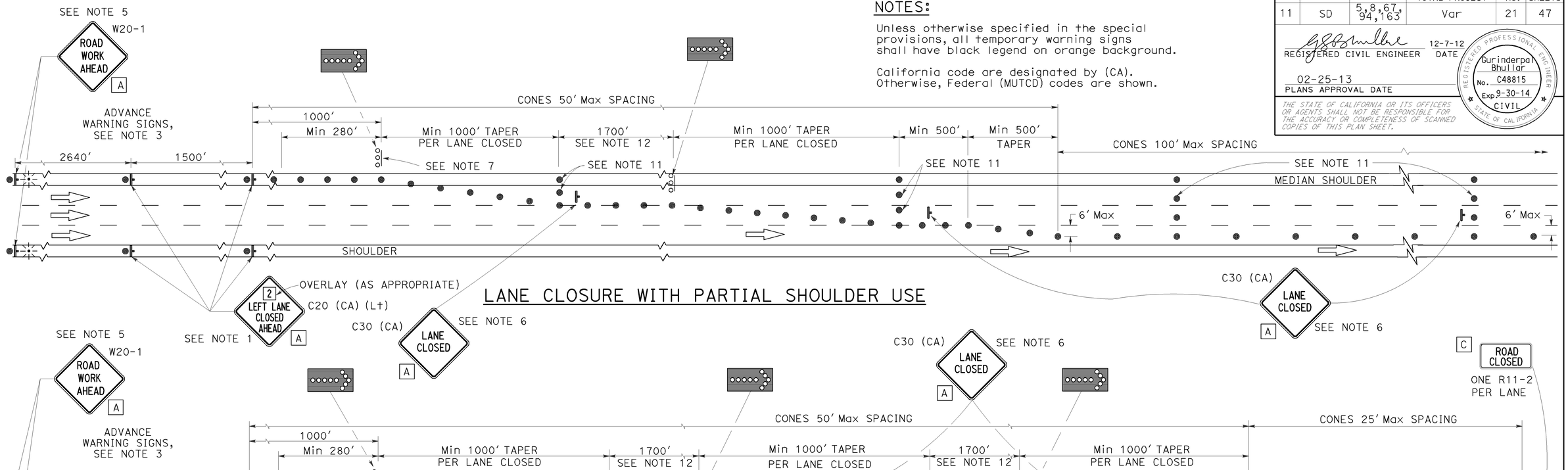
Gurinderpal Bhullar
No. C48815
Exp 9-30-14
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA



## NOTES:

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

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




## LANE CLOSURE WITH PARTIAL SHOULDER USE

## COMPLETE CLOSURE

## NOTES:

1. Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details for inside lane closure except that C20 (CA) (Rt) signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
4. A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
5. If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT ___ MILES", use a C20 (CA) sign for the first advance warning sign.
6. Place a C30 (CA) sign every 2000' throughout length of lane closure.
7. One flashing arrow sign for each lane closed. The first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
8. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
9. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
10. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
11. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
12. Unless otherwise specified in the special provisions, the 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
13. A minimum of Two Type II barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
14. When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

## SIGN PANEL SIZE (Min)

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

## LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR LANE AND COMPLETE CLOSURES ON FREEWAYS AND EXPRESSWAYS

NO SCALE

**TCS-2**

REVISED BY | DATE REVISED

CALCULATED- | DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION | DATE PLOTTED => 10-DEC-2012
02-25-13 | TIME PLOTTED => 09:45

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 22 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

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

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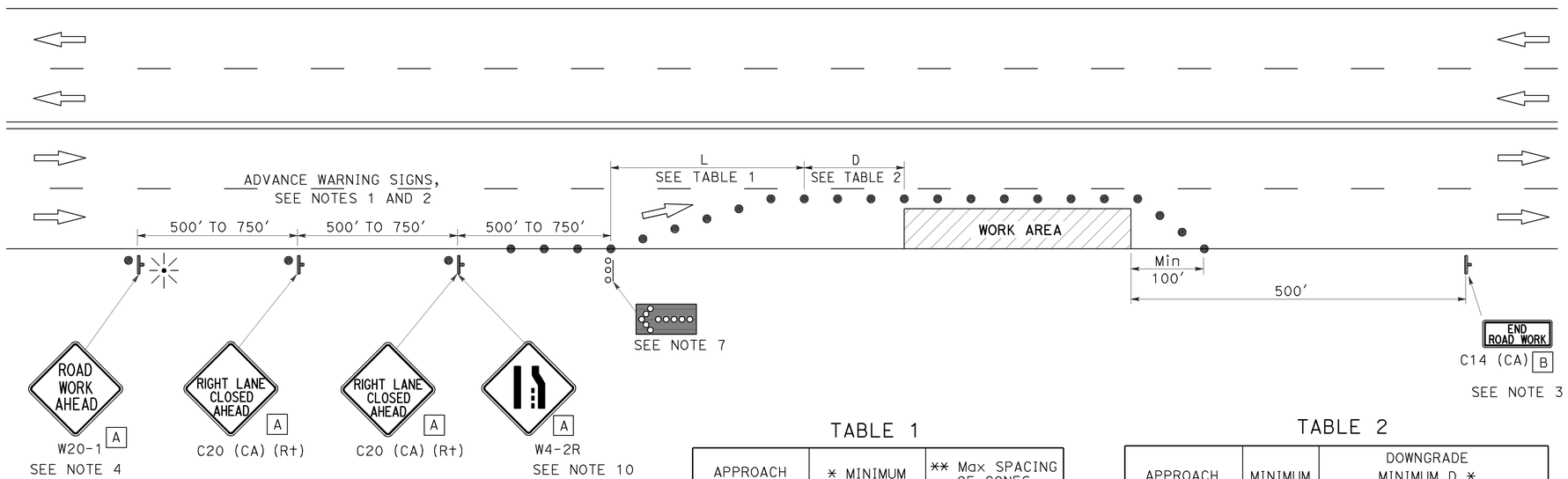
# TYPICAL LANE CLOSURE




## TABLE 1

| APPROACH SPEED | * MINIMUM L | ** Max SPACING OF CONES ALONG TAPER |
|---|---|---|
| mph | ft | ft |
| 20 AND BELOW | 80 | 20 |
| 25 | 125 | 25 |
| 30 | 180 | 30 |
| 35 | 245 | 35 |
| 40 | 320 | 40 |
| 45 | 540 | 45 |
| 50 | 600 | 50 |
| Over 50 | SEE NOTE 9 | |

* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12′.
** SEE NOTE 8.

## TABLE 2

| APPROACH SPEED | MINIMUM D | DOWNGRADE MINIMUM D * | | |
|---|---|---|---|---|
| | | -3% | -6% | -9% |
| mph | ft | ft | ft | ft |
| 25 AND BELOW | 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 |
| OVER 50 | SEE NOTE 9 | | | |

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

## NOTES:

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

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

## LEGEND

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

## SIGN PANEL SIZE (Min)

A 36" x 36"

B 36" x 18"

## NOTES:

1. Where approach speeds are low, advance warning signs may be placed at 300′ spacing and placed closer in urban areas.
2. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
4. If the W20-1 sign would follow within 2000′ of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____ MILES", use a C20 (CA) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow sign shall be either Type I or Type II.
8. The maximum spacing between cones along a tangent shall be 50′ and along a taper shall be approximately as shown in Table 1.
9. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
10. When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

**TCS-3**

LAST REVISION 02-25-13 | DATE PLOTTED => 10-DEC-2012 | TIME PLOTTED => 09:45

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 23 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

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

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans®

## LEGEND

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

## TABLE 1

| APPROACH SPEED | * MINIMUM L | ** Max SPACING OF CONES ALONG TAPER |
|---|---|---|
| mph | ft | ft |
| 20 and below | 80 | 20 |
| 25 | 125 | 25 |
| 30 | 180 | 30 |
| 35 | 245 | 35 |
| 40 | 320 | 40 |
| 45 | 540 | 45 |
| 50 | 600 | 50 |
| OVER 50 | SEE NOTE 11 | |

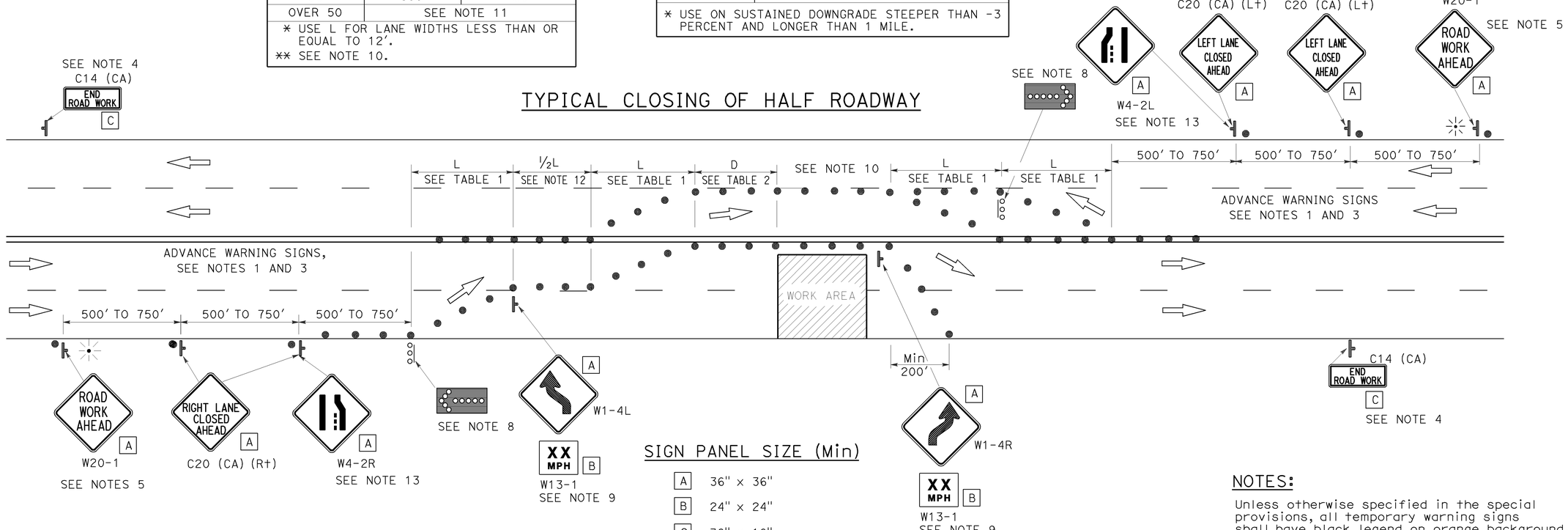
* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.
** SEE NOTE 10.

## TABLE 2

| APPROACH SPEED | MINIMUM D | DOWNGRADE MINIMUM D * | | |
|---|---|---|---|---|
| | | -3% | -6% | -9% |
| mph | ft | ft | ft | ft |
| 25 AND BELOW | 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 |
| OVER 50 | SEE NOTE 11 | | | |

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

## TYPICAL CLOSING OF HALF ROADWAY




## SIGN PANEL SIZE (Min)

- A — 36" x 36"
- B — 24" x 24"
- C — 36" x 18"

## NOTES:

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

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

## NOTES:

1. Where Approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
3. 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.
4. A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
5. If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____ MILES", use a C20 (CA) sign for the first advance warning sign.
6. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
7. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
8. Flashing arrow signs shall be either Type I or Type II.
9. Advisory speed will be determined by the Engineer. The W13-1 Sign will not be required when advisory speed is more than the posted or maximum speed limit.
10. The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
11. For approach speeds over 50 mph, use the "Traffic Control System For Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
12. Unless otherwise specified in the special provisions, the ( ½ L) shown between the two (L) lane closure tapers shall be used.
13. When specified in the special provisions, a W4-2 "Lane Ends" symbol sign is to be used in place of the C20 (CA) "RIGHT (LEFT) LANE CLOSED AHEAD" sign.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

**TCS-4**

LAST REVISION | DATE PLOTTED => 10-DEC-2012
02-25-13 | TIME PLOTTED => 09:45

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 24 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

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

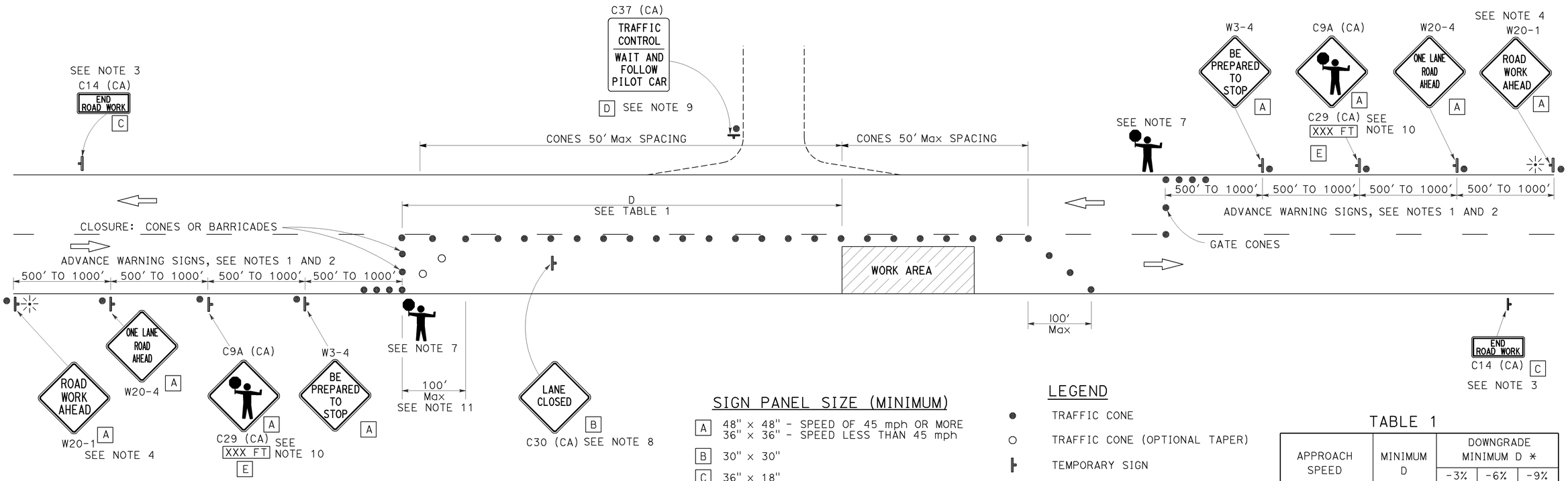
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

## NOTES:

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

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

# TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL




## SIGN PANEL SIZE (MINIMUM)

- A — 48" x 48" - SPEED OF 45 mph OR MORE; 36" x 36" - SPEED LESS THAN 45 mph
- B — 30" x 30"
- C — 36" x 18"
- D — 36" x 42"
- E — 36" x 9"

## LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY SIGN
- PORTABLE FLASHING BEACON
- FLAGGER

## TABLE 1

| APPROACH SPEED | MINIMUM D | DOWNGRADE MINIMUM D * | | |
|---|---|---|---|---|
| | | -3% | -6% | -9% |
| mph | ft | ft | ft | ft |
| 25 AND BELOW | 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 |

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

## NOTES:

1. Where approach speeds are low, advance warning signs may be placed at 300' spacing, and closer in urban areas.
2. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A C14 (CA) "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.
4. If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____MILES", use a W20-4 sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. 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.
8. 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.
9. When a pilot car is used, place a C37 (CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign at all intersections within traffic control area. Signs shall be clean and visible at all times.
10. An optional C29 (CA) sign may be placed below the C9A (CA) sign.
11. Traffic cones or barricades may be placed on the optional taper as shown, barricades shall be Type I, II, or III.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

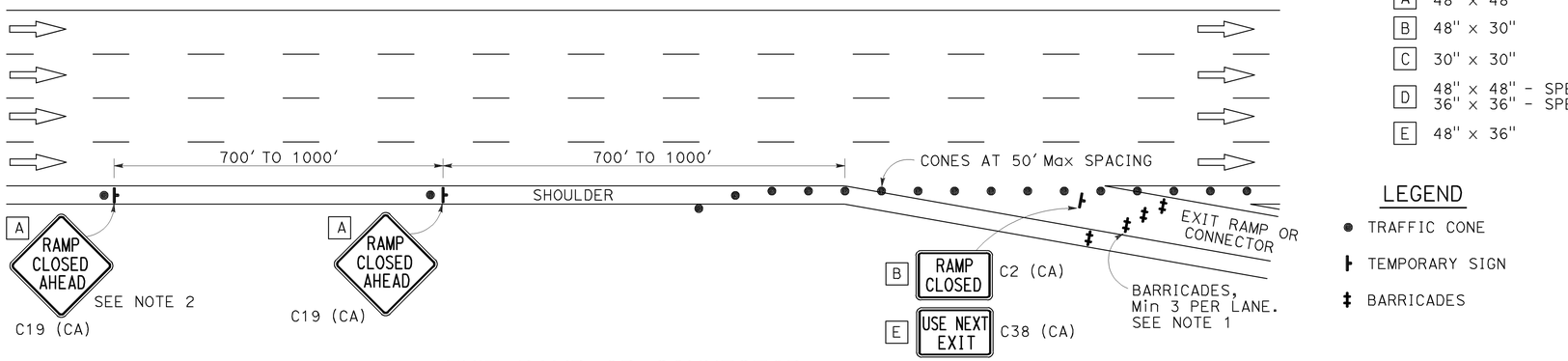
**TCS-5**

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

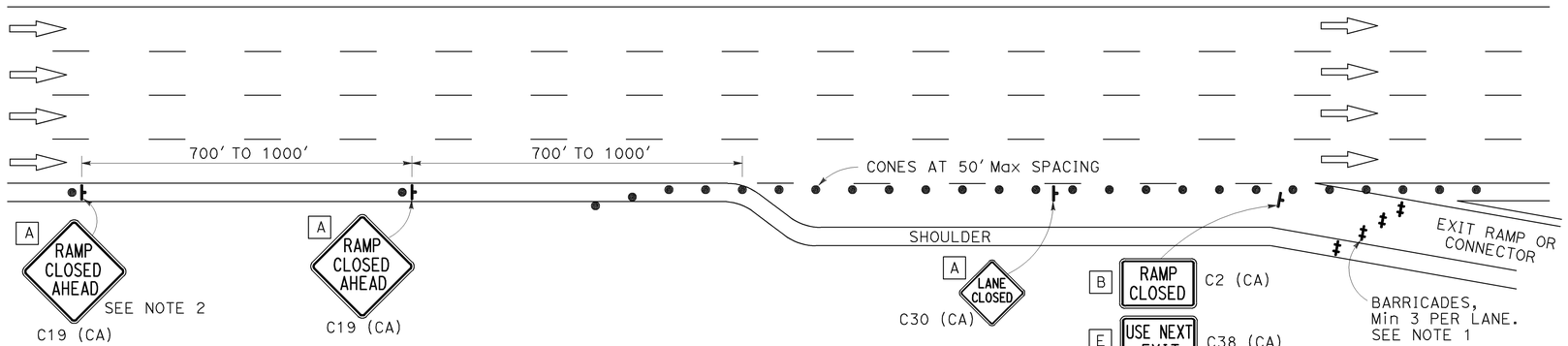
LAST REVISION DATE PLOTTED => 10-DEC-2012
02-25-13 TIME PLOTTED => 09:45

BORDER LAST REVISED 7/2/2010 | USERNAME => s114640 | DGN FILE => tcs13.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

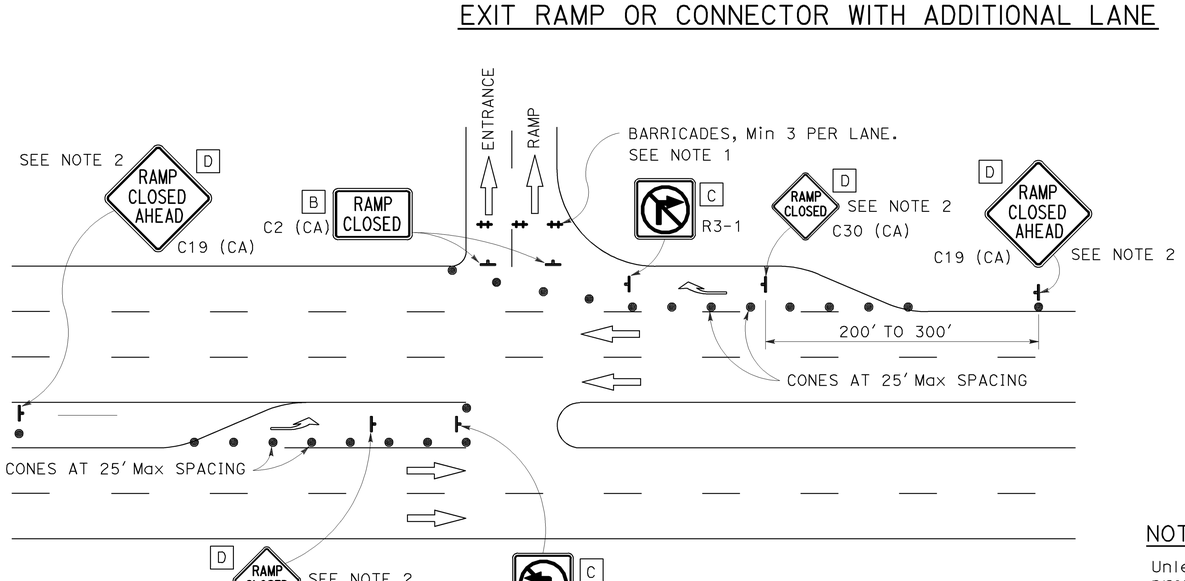
# TYPICAL RAMP CLOSURES



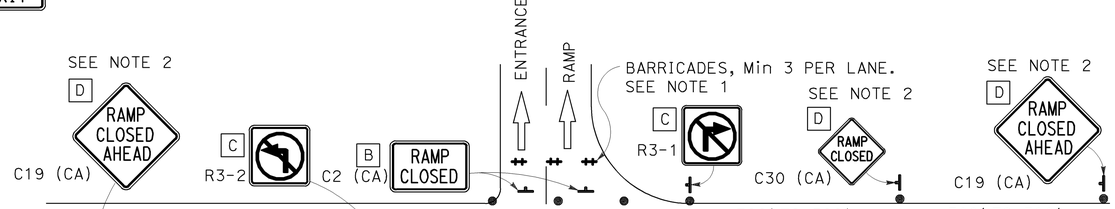

## EXIT RAMP OR CONNECTOR




## EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE




## ENTRANCE RAMP WITH TURNING POCKETS




## ENTRANCE RAMP WITHOUT TURNING POCKETS

## SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 30" x 30"
- D 48" x 48" - SPEED OF 50 mph OR MORE
  36" x 36" - SPEED LESS THAN 50 mph
- E 48" x 36"

## LEGEND

- TRAFFIC CONE
- TEMPORARY SIGN
- BARRICADES

## 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" x 16" in size and shall be orange or fluorescent red-orange in color.
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" sign in the gore area shall be covered during ramp closures.

## NOTES:

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

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

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 25 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

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

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

**TCS-6**

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 10-DEC-2012
02-25-13 | TIME PLOTTED => 09:45

BORDER LAST REVISED 7/2/2010 | USERNAME => s114640 | DGN FILE => tcs14.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2773 | PROJECT NUMBER & PHASE 11120001231

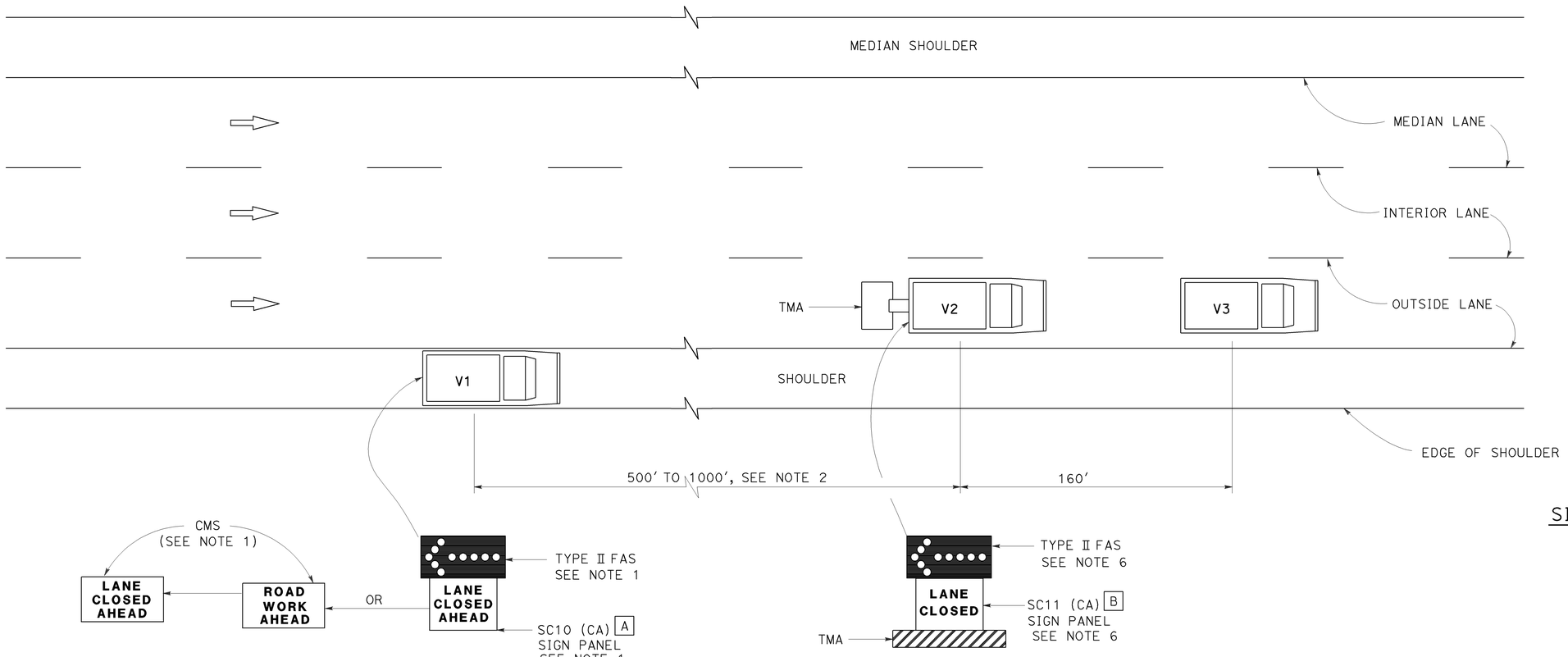
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 26 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

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






## 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 |

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

## 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. A Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1 and used with the SC10 (CA) sign panel. A Type II flashing arrow sign will not be required with the changeable message sign provided the flashing arrow sign symbol is displayed on the changeable message sign board. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "LANE CLOSED AHEAD" message and then the flashing arrow sign symbol. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right.
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 be Type III, IV, VII, VIII or IX retroreflective sheeting, black on white, black on orange, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Gross Vehicle Weight of shadow vehicle V2 shall be a minimum of 20,000 pounds and 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.
9. Where sufficient shoulder width is not available, sign vehicle V1 may encroach into the traffic lane staying as close to the edge of shoulder as practicable. Both V1 and V2 shall be equipped with a truck-mounted attenuator. The Gross Vehicle Weight of V1 and V2 shall be at least 20,000 pounds, respectively.
10. When multiple work vehicles are used in close proximity to each other, only one shadow vehicle is required, and spacing between work vehicles shall be minimized in order to deter traffic from entering the closed lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS (OUTSIDE AND MEDIAN LANES)

NO SCALE

**TCS-7**

LAST REVISION 02-25-13 | DATE PLOTTED => 10-DEC-2012 | TIME PLOTTED => 09:45

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED

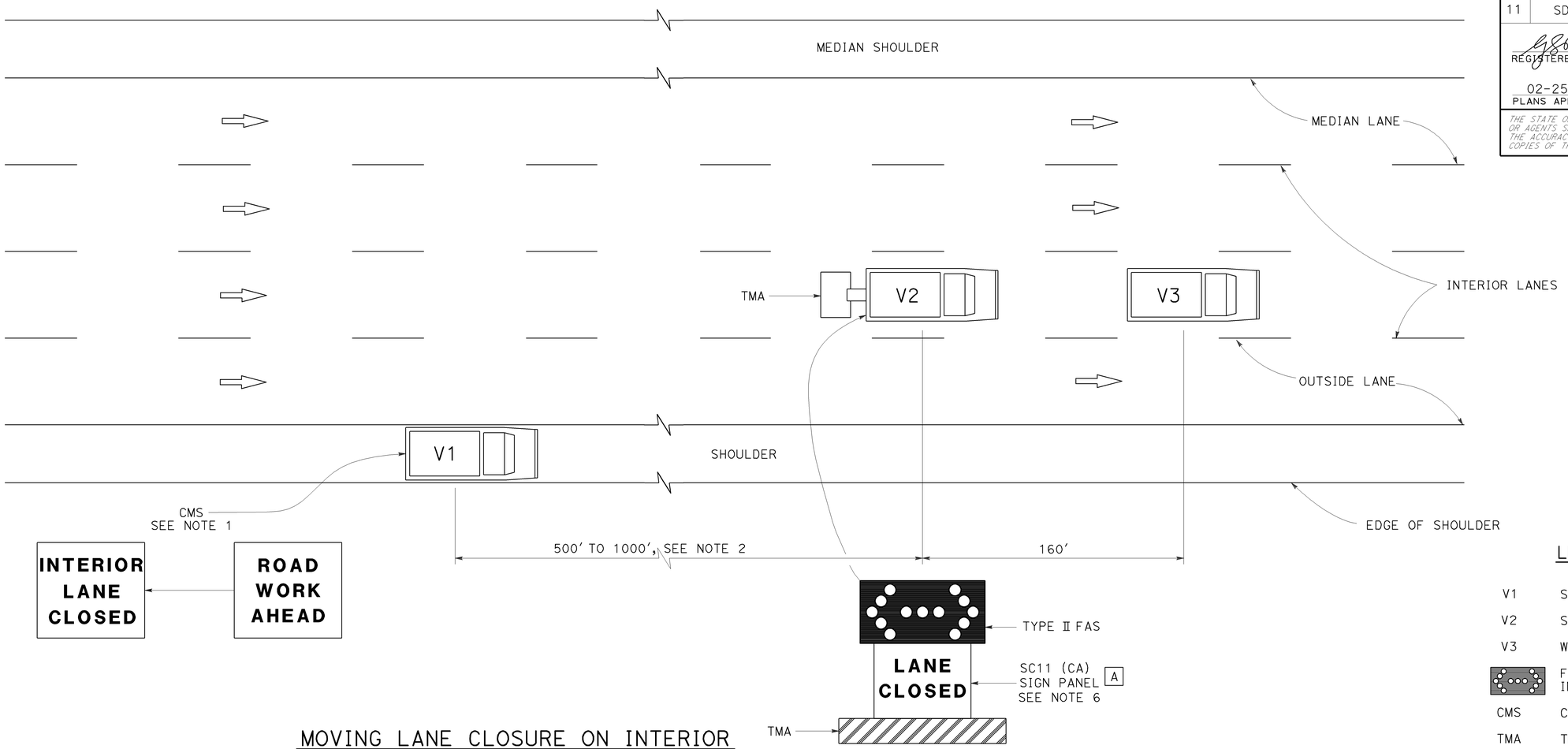
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 27 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

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






## MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

## LEGEND

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

## NOTES:

1. A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500′ should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500′.
5. Vehicle-mounted sign panels shall be Type III, IV, VII, VIII, or IX retroreflective sheeting, black on white, black on orange, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Gross Vehicle Weight of shadow vehicle V2 shall be a minimum of 20,000 pounds and shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. Where sufficient shoulder width is not available, sign vehicle V1 may encroach into the traffic lane staying as close to the edge of shoulder as practicable. Both V1 and V2 shall be equipped with a truck-mounted attenuator. The Gross Vehicle Weight of V1 and V2 shall be at least 20,000 pounds, respectively.
10. When multiple work vehicles are used in close proximity to each other, only one shadow vehicle is required, and spacing between work vehicles shall be minimized in order to deter traffic from entering the closed lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS (INTERIOR LANES)

NO SCALE

**TCS-8**

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 10-DEC-2012
02-25-13 | TIME PLOTTED => 09:45

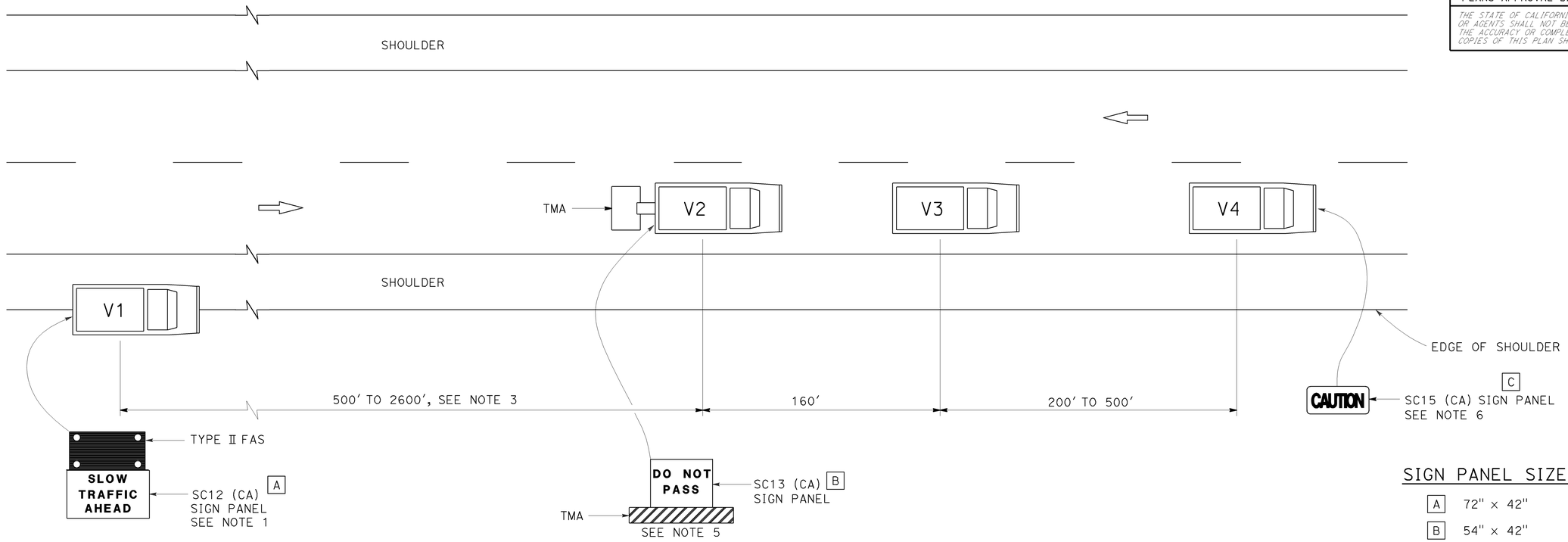
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 28 | 47 |

REGISTERED CIVIL ENGINEER — 12-7-12 DATE

02-25-13
PLANS APPROVAL DATE

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






## SIGN PANEL SIZE (Min)

- A — 72" × 42"
- B — 54" × 42"
- C — 54" × 24"

## 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 |

## 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. 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 be Type III, IV VII, VIII or IX retroreflective sheeting, black on white, black on orange, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Gross Vehicle Weight of shadow vehicle shall be a minimum of 20,000 pounds and 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. When multiple work vehicles are used in close proximity to each other, only one shadow vehicle is required and spacing between work vehicles shall be minimized in order to deter traffic from entering the closed lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

**TCS-9**

REVISED BY | DATE REVISED
CALCULATED- | DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 10-DEC-2012
02-25-13 | TIME PLOTTED => 09:45

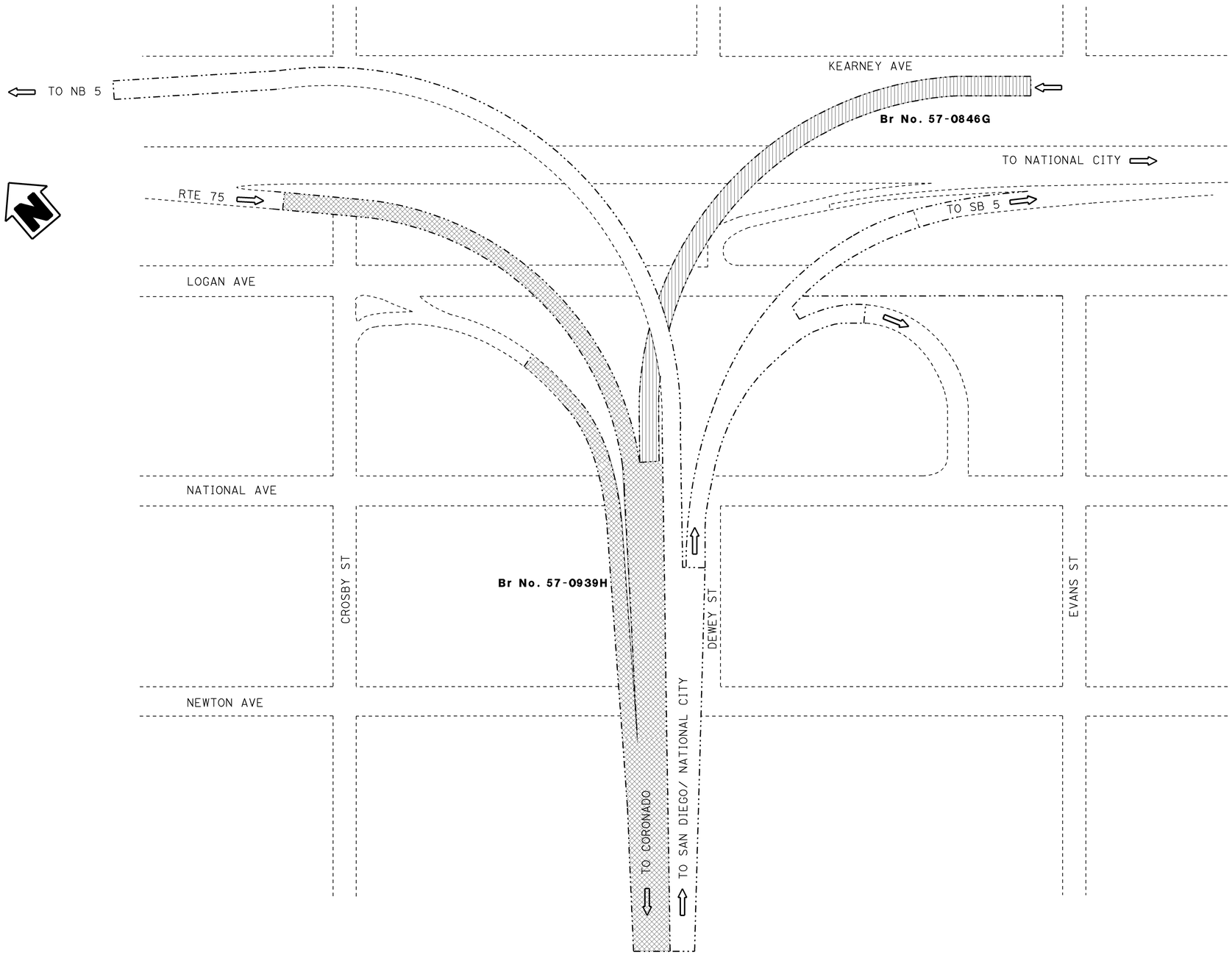
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 29 | 47 |

REGISTERED CIVIL ENGINEER — 01/18/13 DATE

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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




## INDEX TO PLANS



## STANDARD PLANS 2010

| SHEET NO. | TITLE |
|---|---|
| A10A | ABBREVIATIONS (SHEET 1 OF 2) |
| A10B | ABBREVIATIONS (SHEET 2 OF 2) |
| A10C | LINES AND SYMBOLS (SHEET 1 OF 3) |
| A10D | LINES AND SYMBOLS (SHEET 2 OF 3) |
| A10E | LINES AND SYMBOLS (SHEET 3 OF 3) |
| B6-21 | JOINT SEALS (MAXIMUM MOVEMENT RATING = 2") |

STANDARD PLAN SHEET NO.

DETAIL NO.

## LEGEND:

| | Bridge Name | Br No. |
|---|---|---|
| | N5-S75 CONNECTOR OC (see "GENERAL PLAN NO. 1" sheet) | 57-0846G |
| | S5-S75 CONNECTOR OC (see "GENERAL PLAN NO. 2" sheet) | 57-0939H |
| | Indicates existing. | |
| ⇨ | Indicates direction of traffic. | |

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

# SAN DIEGO - CORONADO BAY BRIDGE APPROACH RAMPS

NO SCALE

TONY D. BRAKE
DESIGN ENGINEER

| | BY | CHECKED |
|---|---|---|
| DESIGN | Edward Nahm | Tony Brake |
| DETAILS | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake |

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

| | BY | CHECKED |
|---|---|---|
| LAYOUT | Tom Dang | Tony Brake |
| SPECIFICATIONS | Steve Seifert | PLANS AND SPECS COMPARED: Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# PARTIAL PROJECT PLAN

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123 CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 01 | 19 |

FILE => 11-2m1501-a-partprojplan.dgn

USERNAME => s1292239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:15

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 30 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

EDWARD J. NAHM — REGISTERED PROFESSIONAL ENGINEER — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

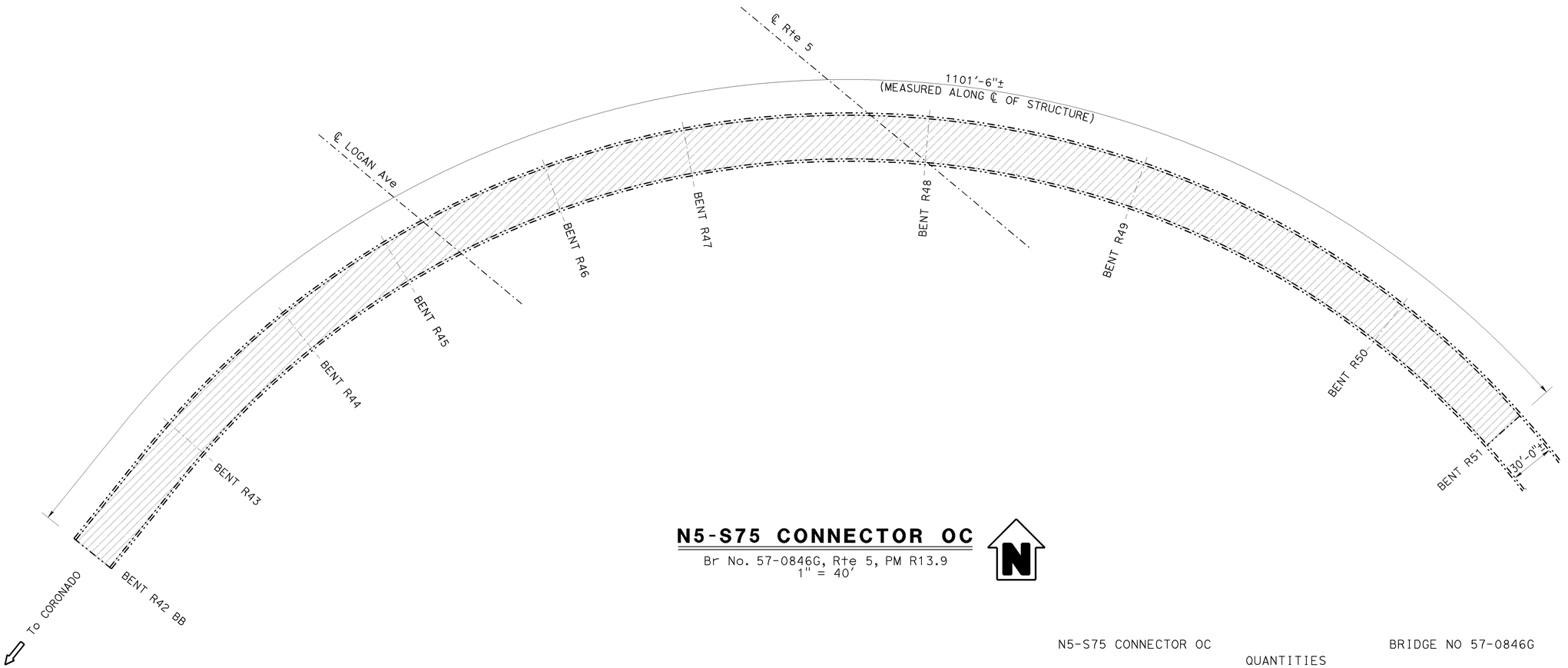
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

## LEGEND:

Indicates existing.

Indicates direction of traffic.

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




## N5-S75 CONNECTOR OC

Br No. 57-0846G, Rte 5, PM R13.9
1" = 40'

N5-S75 CONNECTOR OC — BRIDGE NO 57-0846G

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 33,050 | SQFT |
| TREAT BRIDGE DECK | 33,050 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 415 | GAL |

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

| | BY | CHECKED |
|---|---|---|
| DESIGN | Edward Nahm | Tony Brake |
| DETAILS | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake |

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

| | BY | CHECKED |
|---|---|---|
| LAYOUT | Tom Dang | Tony Brake |
| SPECIFICATIONS | Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | SHEET | OF |
|---|---|---|
| 6-25-12 | 02 | 19 |

FILE => 11-2m1501-b-gp01.dgn

USERNAME => s129239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:14

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 31 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

EDWARD J. NAHM — REGISTERED PROFESSIONAL ENGINEER — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE 02-25-13

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

S5-S75 CONNECTOR OC — BRIDGE NO 57-0939H

QUANTITIES

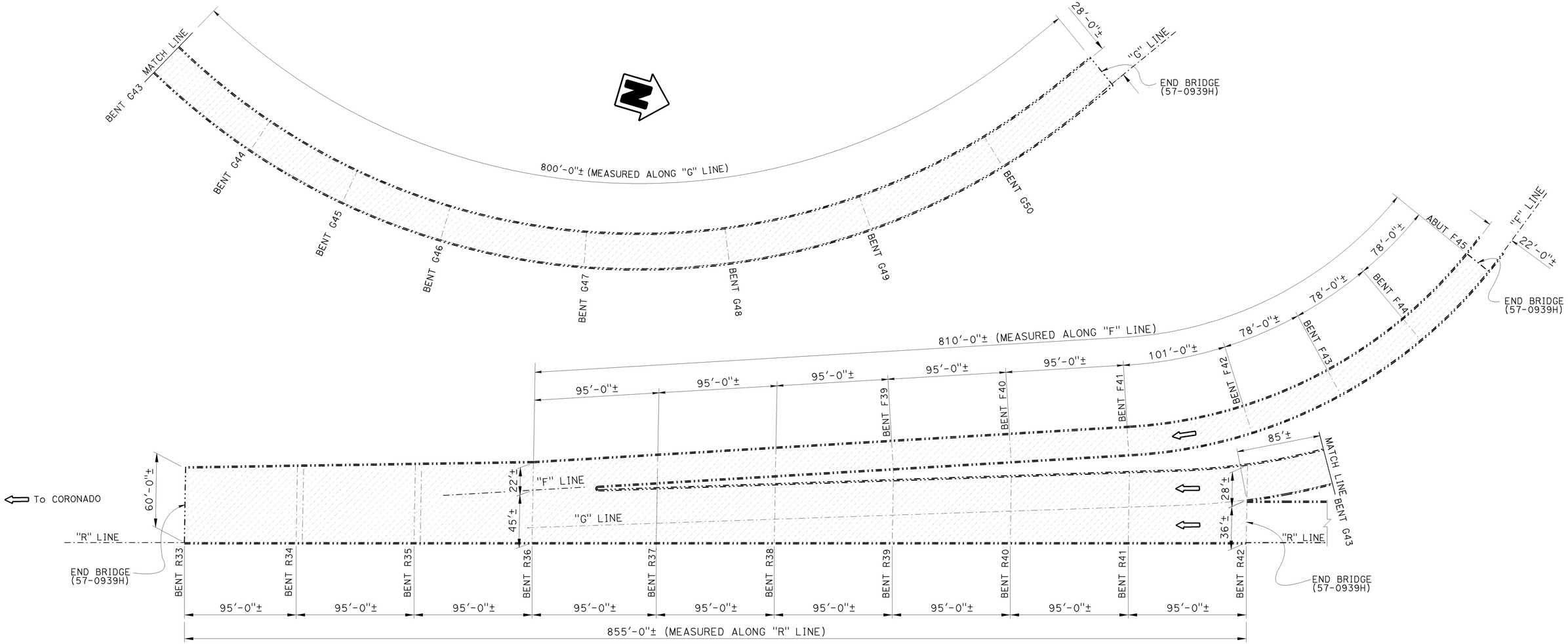
| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP SUM | |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 91,760 | SQFT |
| TREAT BRIDGE DECK | 91,760 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 1,150 | GAL |

## LEGEND:

Indicates existing.

Indicates direction of traffic.

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




## S5-S75 CONNECTOR OC

Br No. 57-0939H, Rte 5, PM R14.16
NO SCALE

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

| | | | | | |
|---|---|---|---|---|---|
| DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | |
| DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake |
| QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 03 | 19 |

FILE => 11-2m1501-b-gp02.dgn

USERNAME => s1239239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:17

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 32 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

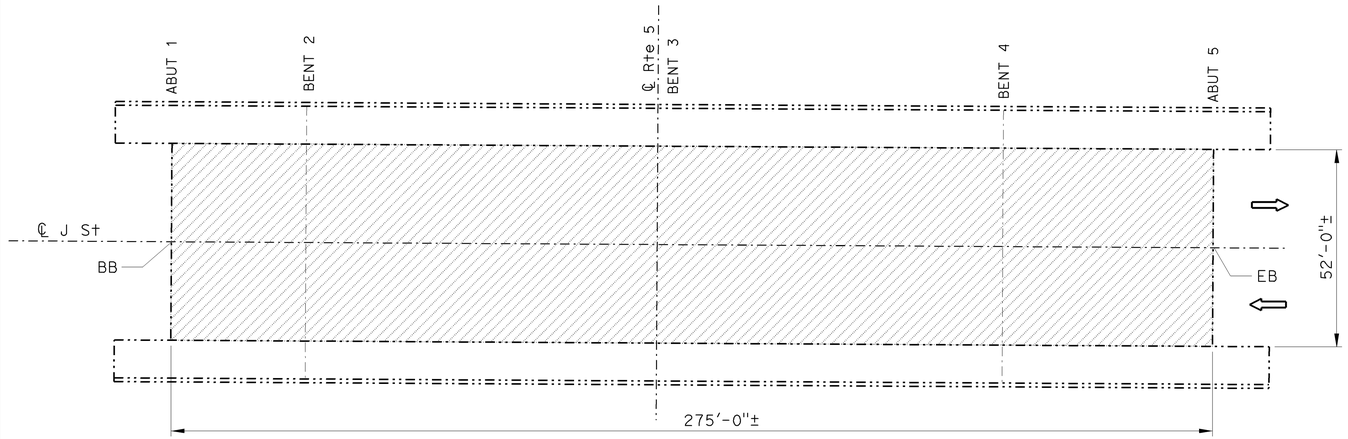
REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

J STREET OC BRIDGE NO 57-0451

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 14,300 | SQFT |
| TREAT BRIDGE DECK | 14,300 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 180 | GAL |




## J STREET OC

Br No. 57-0451, Rte 5, PM R14.74
1" = 20'

## LEGEND:

Indicates existing.

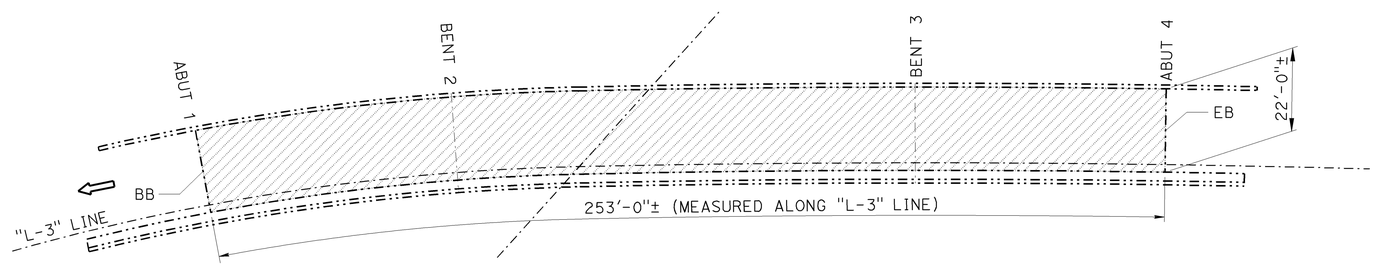
Indicates direction of traffic.

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

S5-G ST/ 19TH-E 94 OC BRIDGE NO 57-0418S

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 5,570 | SQFT |
| TREAT BRIDGE DECK | 5,570 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 70 | GAL |




## S5-G STREET/19TH-E 94 OC

Br No. 57-0418S, Rte 5 PM R15.00
1" = 20'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

| | | | | | |
|---|---|---|---|---|---|
| DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | |
| DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake |
| QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

| BRIDGE NO. | RTE 5,8,67,94,163 BRIDGES |
|---|---|
| Various | |
| POST MILE | GENERAL PLAN NO. 3 |
| Varies | |

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 04 | 19 |

FILE => 11-2m1501-b-gp03.dgn

USERNAME = s129239 DATE PLOTTED => 25-JAN-2013 TIME PLOTTED => 12:33

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 33 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

## LEGEND:

Indicates existing.

Indicates direction of traffic.

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

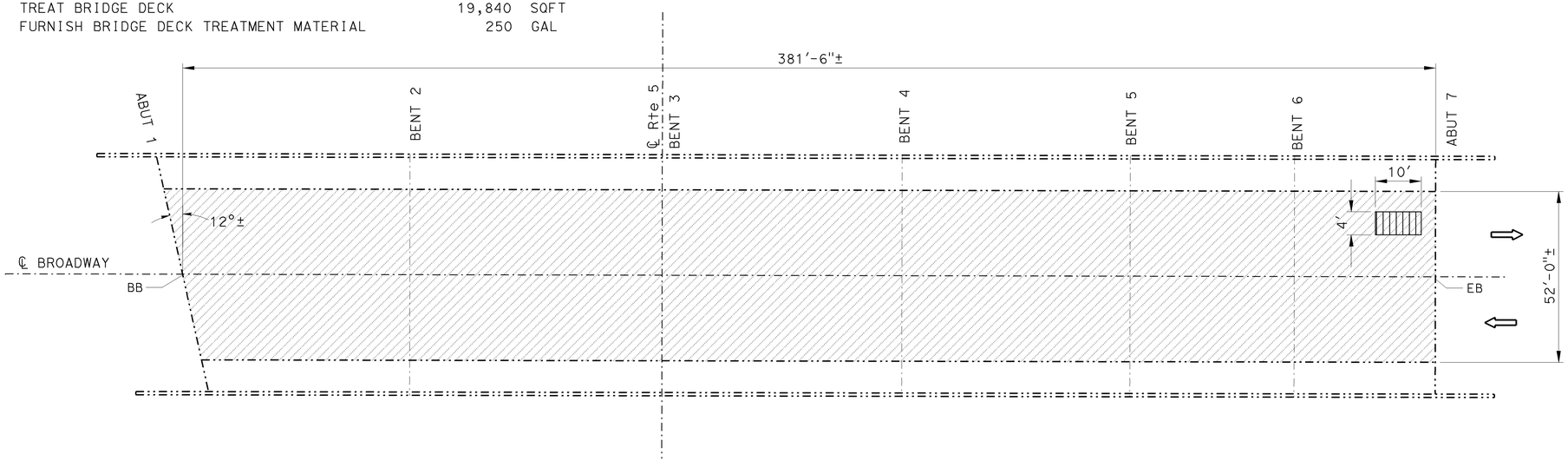
Indicates location of clean expansion joint and placement of new joint seal.

Indicates removal of paint bike lane pavement marking.

BROADWAY OC — BRIDGE NO 57-0423

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| REMOVE PAINTED PAVEMENT MARKING | 40 | SQFT |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 19,840 | SQFT |
| TREAT BRIDGE DECK | 19,840 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 250 | GAL |



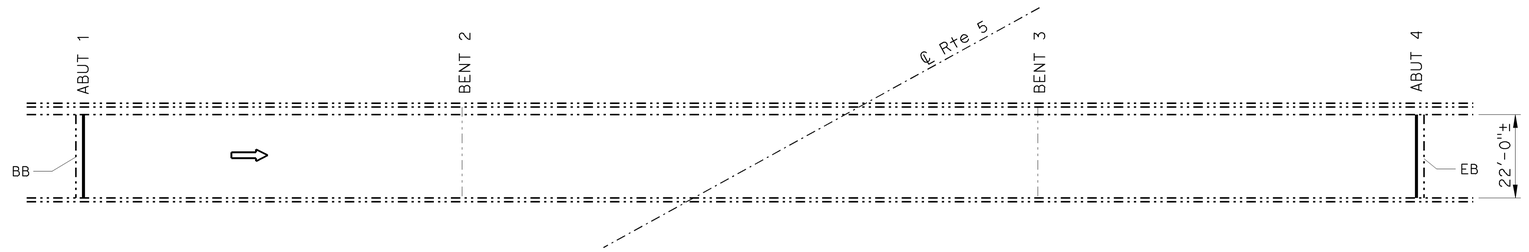

## BROADWAY OC

Br No. 57-0423, Rte 5, PM R15.18
1" = 20'

N5-6TH AVE/ N&S163-N5 OC — BRIDGE NO 57-0397S

QUANTITIES

| | | |
|---|---|---|
| CLEAN EXPANSION JOINT | 44 | LF |
| JOINT SEAL (MR 1 1/2") | 44 | LF |




## N5-6TH AVENUE/ N&S163-N5 OC

Br No. 57-0397S, Rte 5, PM R16.17
1" = 20'

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TONY D. BRAKE<br>DESIGN ENGINEER | DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | | |
| | DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake | |
| | QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert | |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 4

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 05 | 19 |

FILE => 11-2m1501-b-gp04.dgn

USERNAME => s1129239 DATE PLOTTED => 25-JAN-2013 TIME PLOTTED => 12:33

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 34 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

## LEGEND:

Indicates existing.

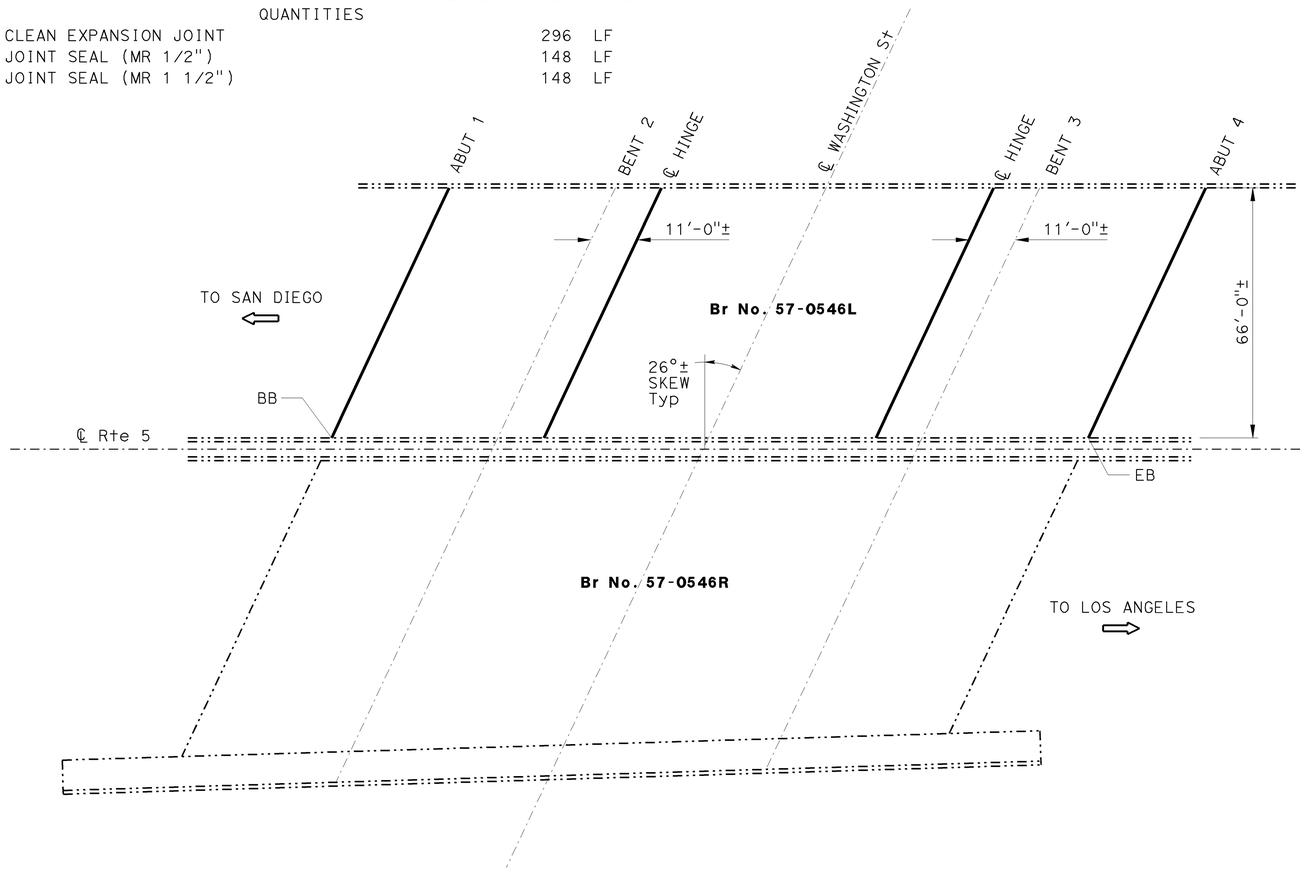
Indicates direction of traffic.

Indicates location of clean expansion joint and placement of new joint seal.

WASHINGTON STREET UC — BRIDGE NO 57-0546L

QUANTITIES

| | | |
|---|---|---|
| CLEAN EXPANSION JOINT | 296 | LF |
| JOINT SEAL (MR 1/2") | 148 | LF |
| JOINT SEAL (MR 1 1/2") | 148 | LF |



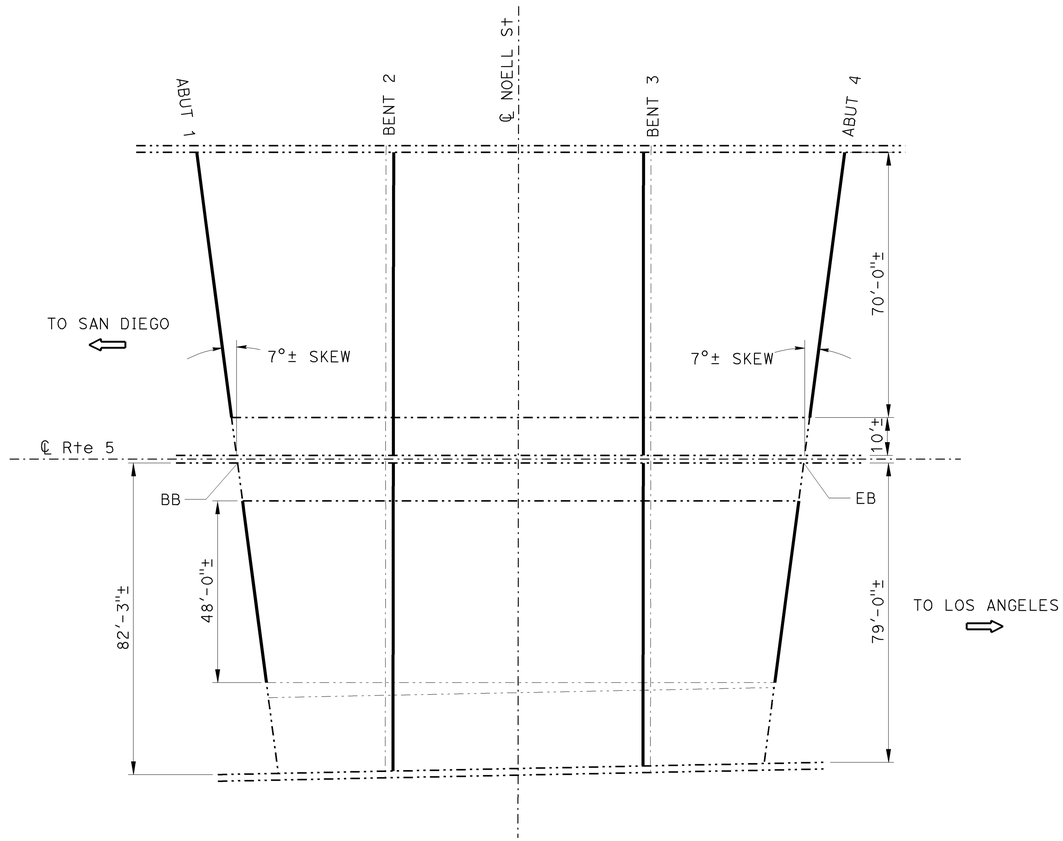

## WASHINGTON STREET UC

Br No. 57-0546L, Rte 5, PM R18.28
1" = 20'

NOELL STREET UC — BRIDGE NO 57-0547

QUANTITIES

| | | |
|---|---|---|
| CLEAN EXPANSION JOINT | 560 | LF |
| JOINT SEAL (MR 1/2") | 238 | LF |
| JOINT SEAL (MR 1 1/2") | 322 | LF |




## NOELL STREET UC

Br No. 57-0547, Rte 5, PM R18.53
1" = 20'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TONY D. BRAKE, DESIGN ENGINEER | DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | | |
| | DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake | |
| | QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert | |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
## GENERAL PLAN NO. 5

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 06 | 19 |

FILE => 11-2m1501-b-gp05.dgn

USERNAME => s1292339 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:10

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 35 | 47 |

REGISTERED CIVIL ENGINEER — 01/18/13 DATE

02-25-13
PLANS APPROVAL DATE

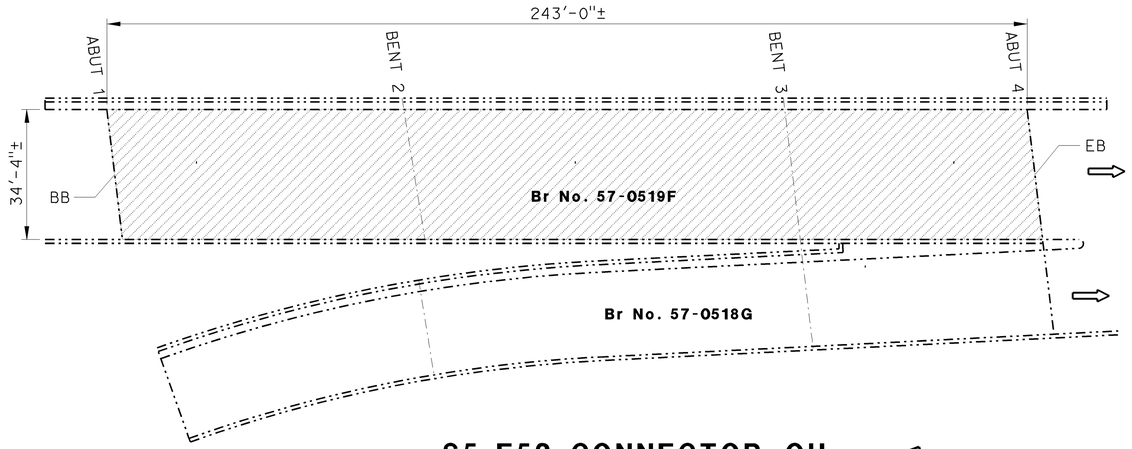
REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

S5-E52 CONNECTOR OH BRIDGE NO 57-0519F

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 8,350 | SQFT |
| TREAT BRIDGE DECK | 8,350 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 105 | GAL |




## S5-E52 CONNECTOR OH

Br No. 57-0519F, Rte 5, PM R25.93
1" = 20'

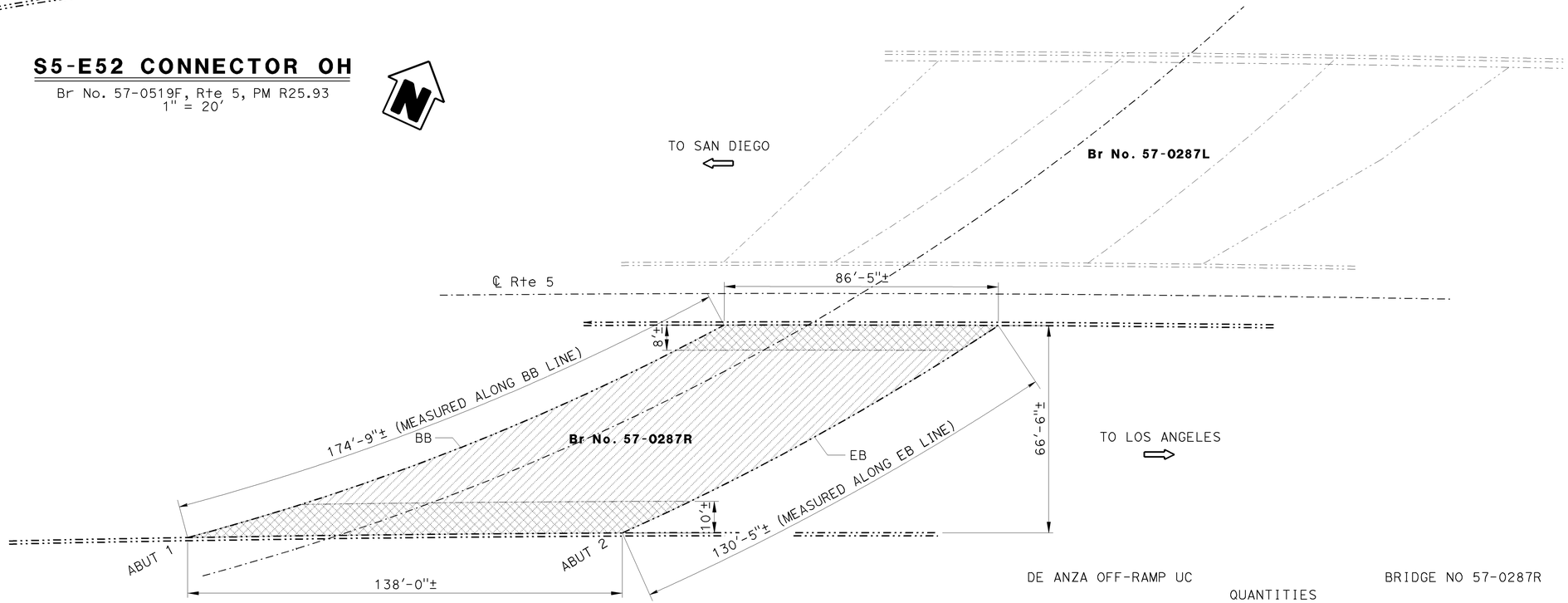
## LEGEND:

Indicates existing.

Indicates direction of traffic.

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

Indicates limits of remove existing contrast treatment.




## DE ANZA OFF-RAMP UC

Br No. 57-0287R, Rte 5, PM R22.87
1" = 20'

DE ANZA OFF-RAMP UC BRIDGE NO 57-0287R

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| REMOVE CONTRAST TREATMENT | 2,070 | SQFT |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 17,120 | SQFT |
| TREAT BRIDGE DECK | 17,120 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 215 | GAL |

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

| | BY | CHECKED |
|---|---|---|
| DESIGN | Edward Nahm | Tony Brake |
| DETAILS | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake |

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

| | BY | CHECKED |
|---|---|---|
| LAYOUT | Tom Dang | Tony Brake |
| SPECIFICATIONS | Steve Seifert | PLANS AND SPECS COMPARED: Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 6

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123 CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 07 | 19 |

FILE => 11-2m1501-b-gp06.dgn

USERNAME = s1129239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:09

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 36 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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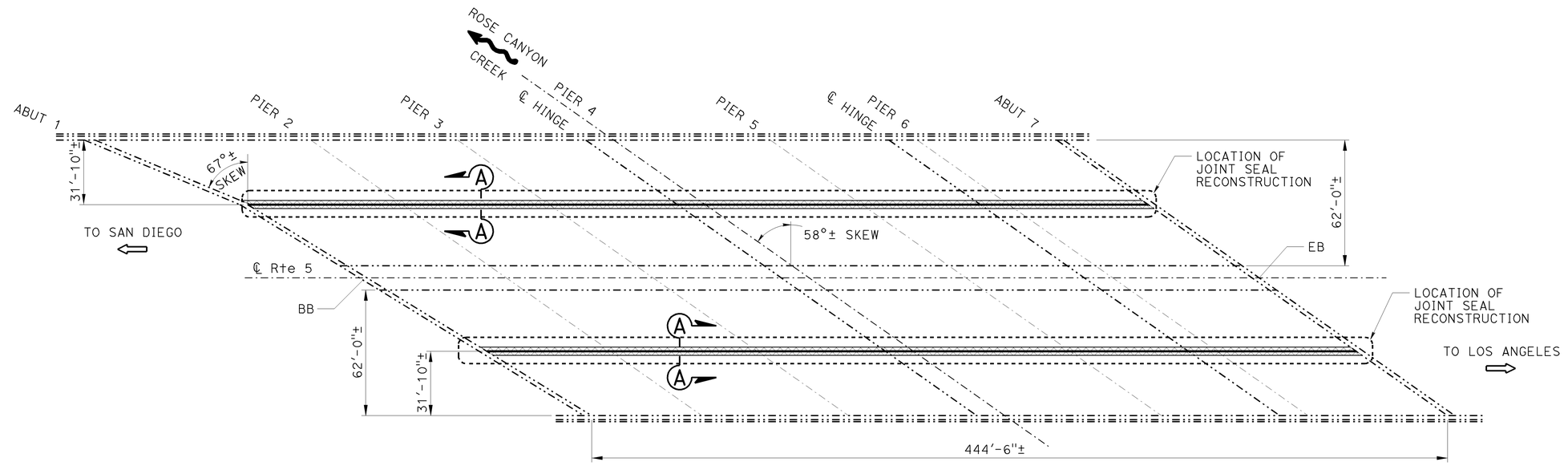



# ROSE CANYON CREEK

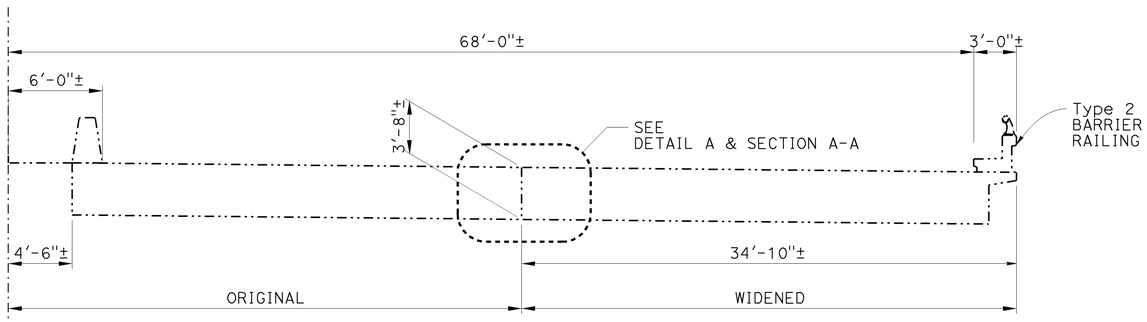
Br No. 57-0289, Rte 5, PM R23.82
1" = 30'

ROSE CANYON CREEK — BRIDGE NO 57-0289

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| REMOVE POLYESTER CONCRETE DECK SURFACE | 1,780 | SQFT |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 1,780 | SQFT |
| FURNISH POLYESTER CONCRETE OVERLAY | 148 | CF |
| PLACE POLYESTER CONCRETE OVERLAY | 1,780 | SQFT |
| CLEAN EXPANSION JOINT | 890 | LF |
| JOINT SEAL (TYPE AL) | 890 | LF |

SYMMETRICAL ABOUT ℄ OF Rte 5

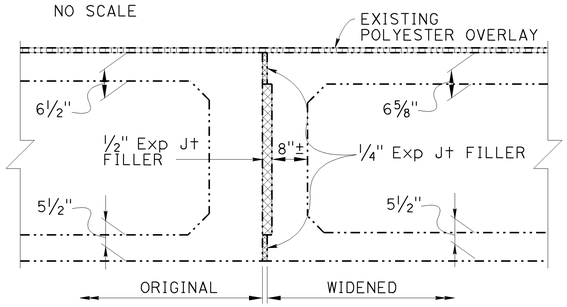



## LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of Polyester concrete removal.
- Indicates limits of new 1" thick minimum Polyester concrete overlay.
- or — Indicates new joint seal Type AL.

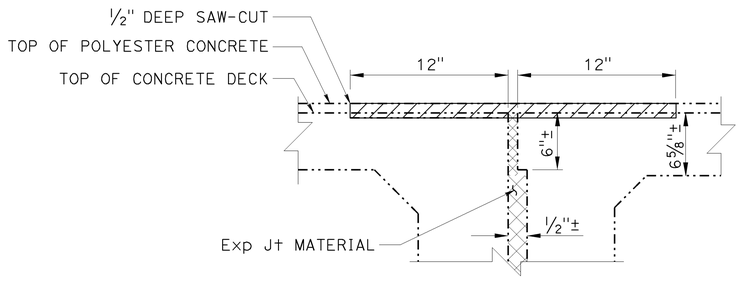
## TYPICAL SECTION

NO SCALE

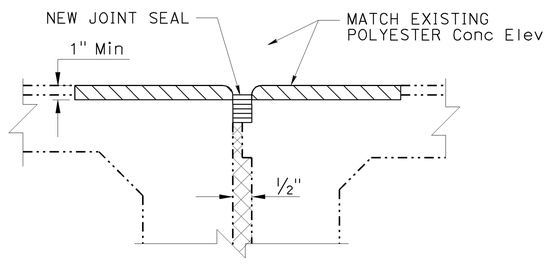



## DETAIL A - JOINT SEAL RECONSTRUCTION

NO SCALE
(SEE SECTION A-A)




EXISTING




RECONSTRUCTION

## SECTION A-A

NO SCALE

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

| | BY | CHECKED | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | |
|---|---|---|---|---|---|
| DESIGN | Edward Nahm | Tony Brake | | | |
| DETAILS | Tom Dang | Tony Brake | LAYOUT | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake | SPECIFICATIONS | Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 7

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 08 | 19 |

FILE => 11-2m1501-b-gp07.dgn

USERNAME => s1129239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 20:53

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 37 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

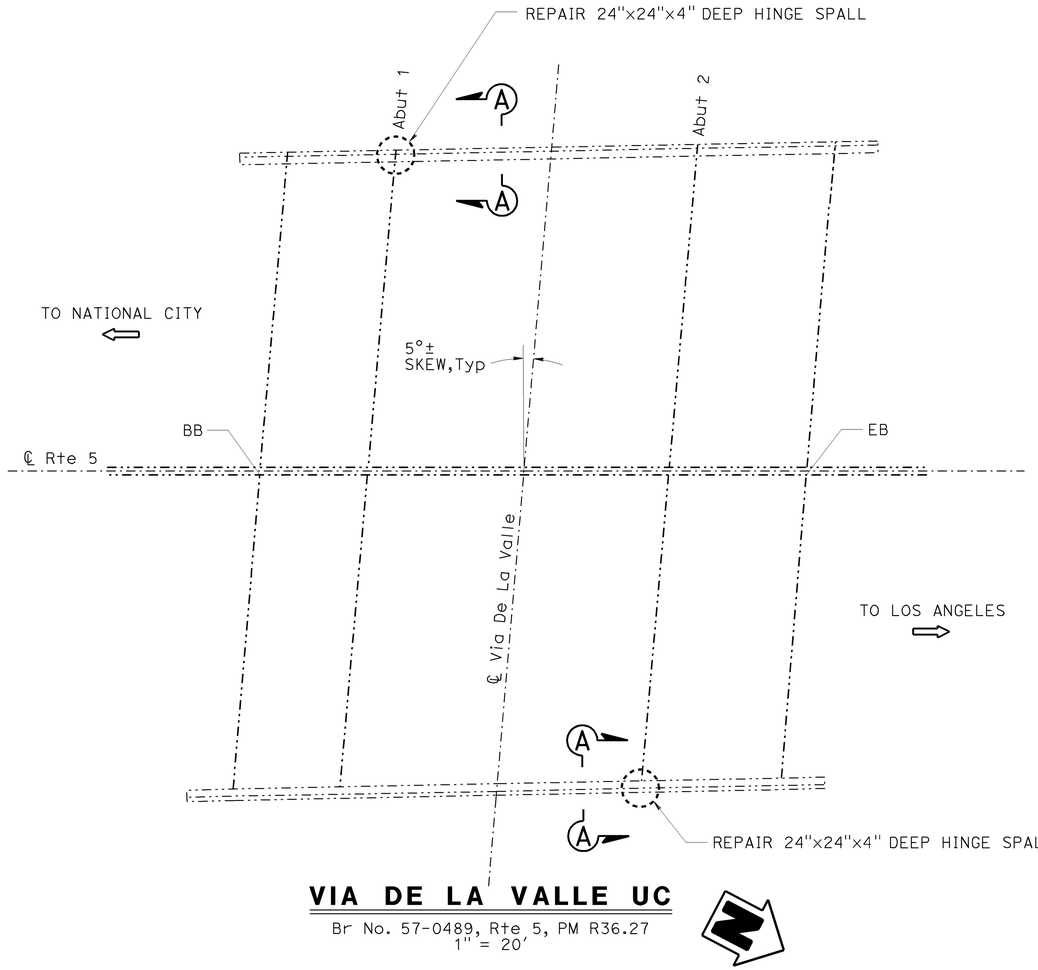
REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

VIA DE LA VALLE UC BRIDGE NO 57-0489

QUANTITIES

REPAIR SPALLED SURFACE AREA 8 SQFT




## VIA DE LA VALLE UC

Br No. 57-0489, Rte 5, PM R36.27
1" = 20'

## LEGEND:

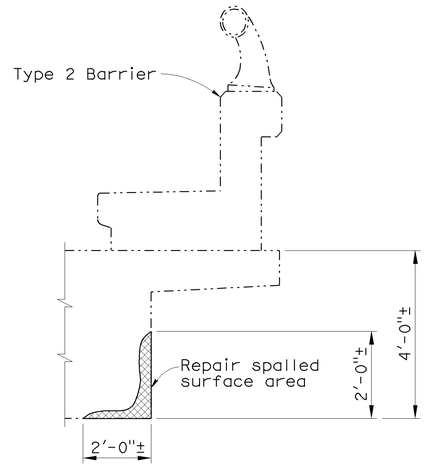
Indicates existing.

Indicates direction of traffic.

Indicates repair spalled surface area.

## NOTES:

1. For spalled surface repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.




## SECTION A-A

## HINGE SPALL REPAIR

NO SCALE

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TONY D. BRAKE, DESIGN ENGINEER | DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | | STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION |
| | DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake | |
| | QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert | |

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 8

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123 CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 09 | 19 |

FILE => 11-2m1501-b-gp08.dgn

USERNAME => s1292339 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 20:54

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 38 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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## LEGEND:

Indicates existing.

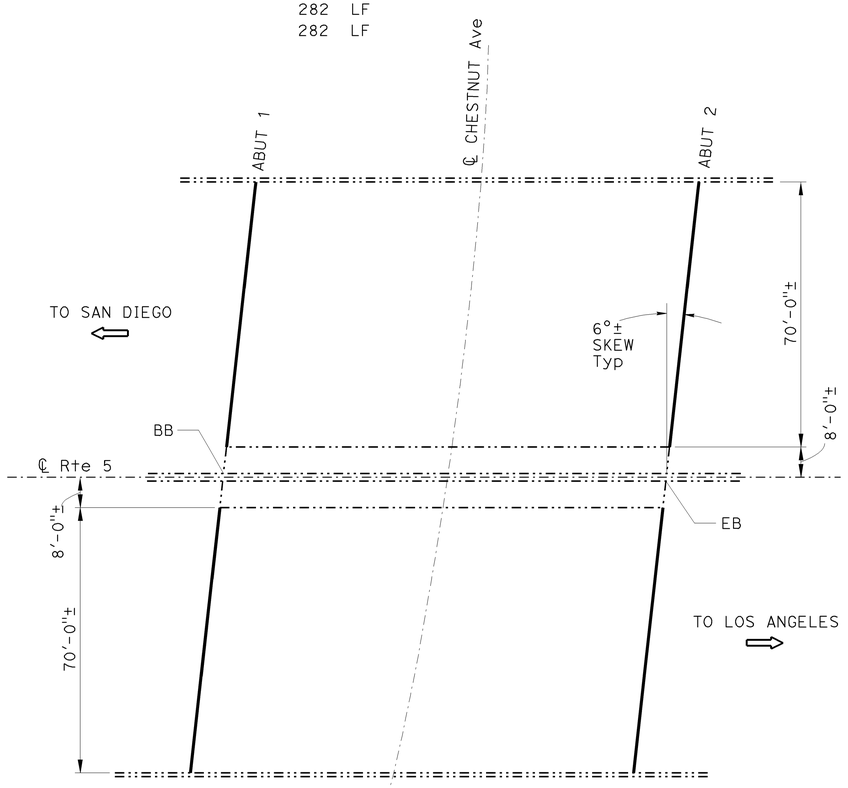
Indicates direction of traffic.

Indicates location of clean expansion joint and placement of new joint seal.

CHESTNUT AVE UC — BRIDGE NO 57-0275

QUANTITIES

| | | |
|---|---|---|
| CLEAN EXPANSION JOINT | 282 | LF |
| JOINT SEAL (MR 1/2") | 282 | LF |



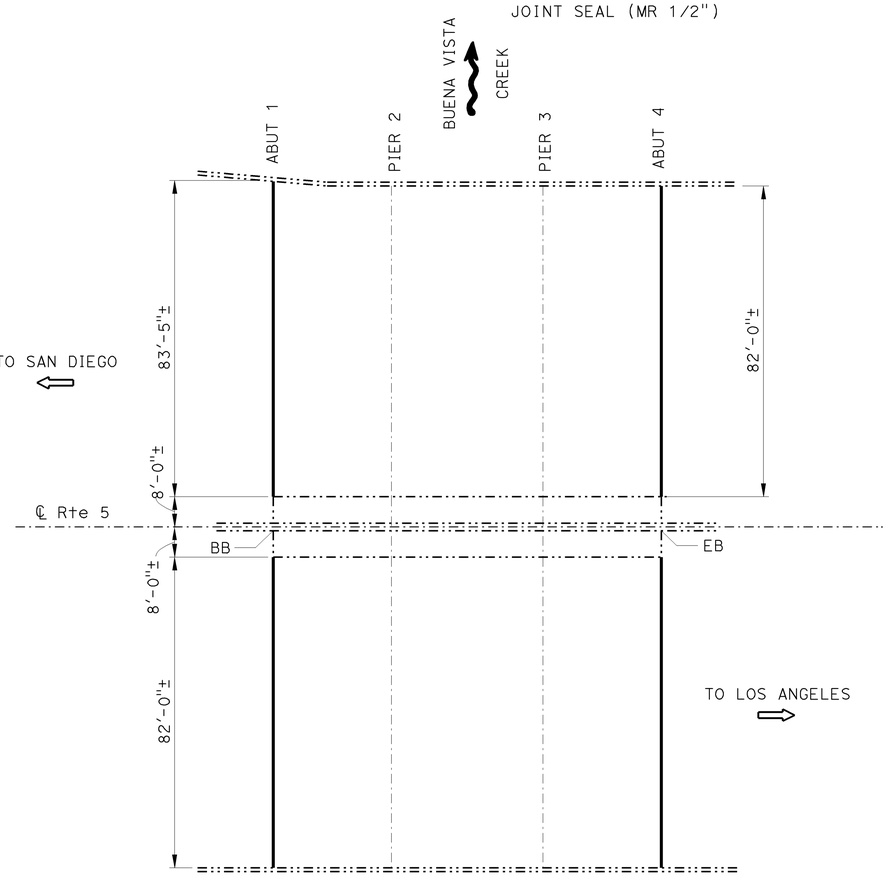

## CHESTNUT AVENUE UC

Br No. 57-0275, Rte 5, PM R49.73
1" = 20'

BUENA VISTA LAGOON — BRIDGE NO 57-0277

QUANTITIES

| | | |
|---|---|---|
| CLEAN EXPANSION JOINT | 330 | LF |
| JOINT SEAL (MR 1/2") | 330 | LF |




## BUENA VISTA LAGOON

Br No. 57-0277, Rte 5, PM R50.94
1" = 20'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

| | BY | CHECKED | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | |
|---|---|---|---|---|---|
| DESIGN | Edward Nahm | Tony Brake | | | |
| DETAILS | Tom Dang | Tony Brake | LAYOUT | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake | SPECIFICATIONS | Steve Seifert | Steve Seifert (PLANS AND SPECS COMPARED) |

TONY D. BRAKE
DESIGN ENGINEER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

**RTE 5,8,67,94,163 BRIDGES**
**GENERAL PLAN NO. 9**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 10 | 19 |

FILE => 11-2m1501-b-gp09.dgn

USERNAME => s1292339 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 20:55

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 39 | 47 |

REGISTERED CIVIL ENGINEER — 01/18/13 DATE

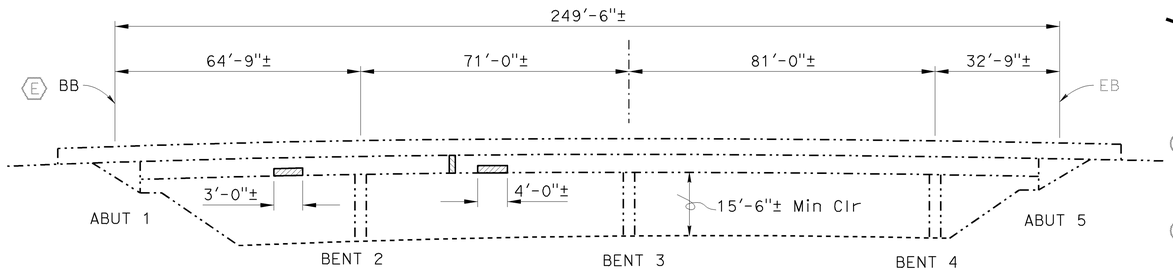
02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

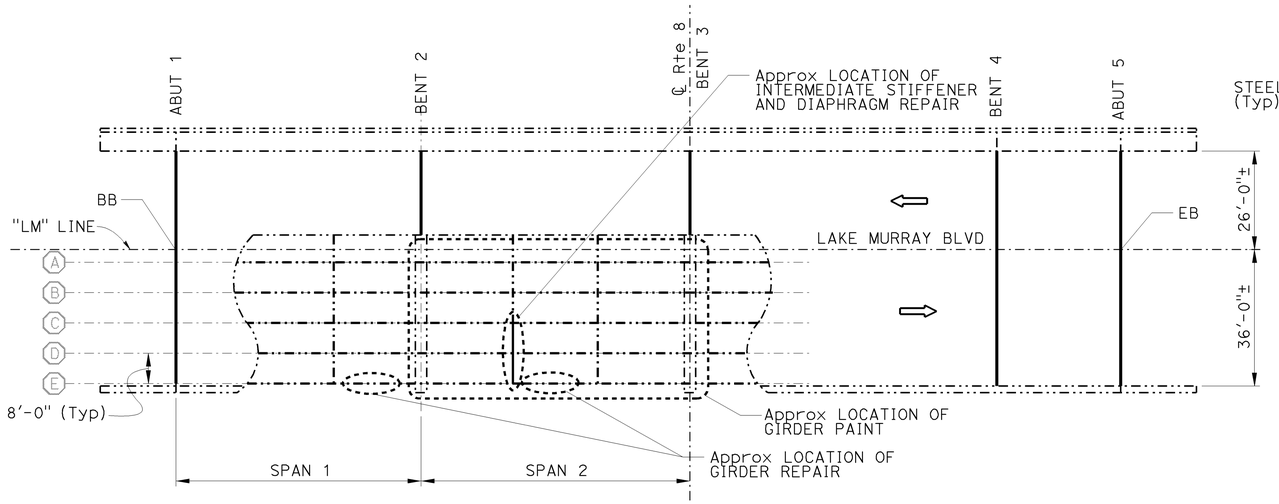
## LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates location of clean expansion joint and placement of new joint seal.
- (X) Indicates girder line designation.
- (1) or Indicates approximate limits of existing steel girder to be heat straightened and repaired, spot blast cleaned and painted, as approved by the Engineer. See "GIRDER REPAIR DETAILS NO. 1" & "GIRDER REPAIR DETAILS NO. 2" sheets.
- (2) or Indicates approximate location of replace intermediate stiffeners and diaphragm. See "GIRDER REPAIR DETAILS NO. 1" & "GIRDER REPAIR DETAILS NO. 2" sheets.
- (3) Indicates limit of clean and paint bottom flange girder only. See "GIRDER REPAIR DETAILS NO. 1" & "GIRDER REPAIR DETAILS NO. 2" sheets.



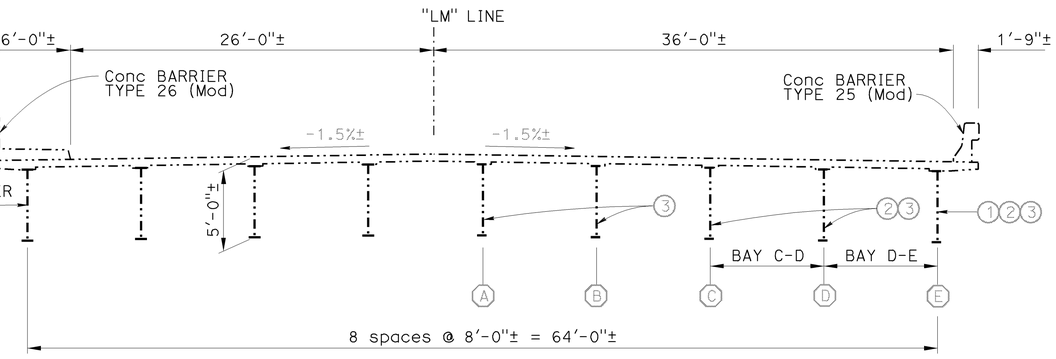

## LAKE MURRAY BLVD OC - ELEVATION

Br No. 57-0341, Rte 8, PM 9.59
1" = 20'



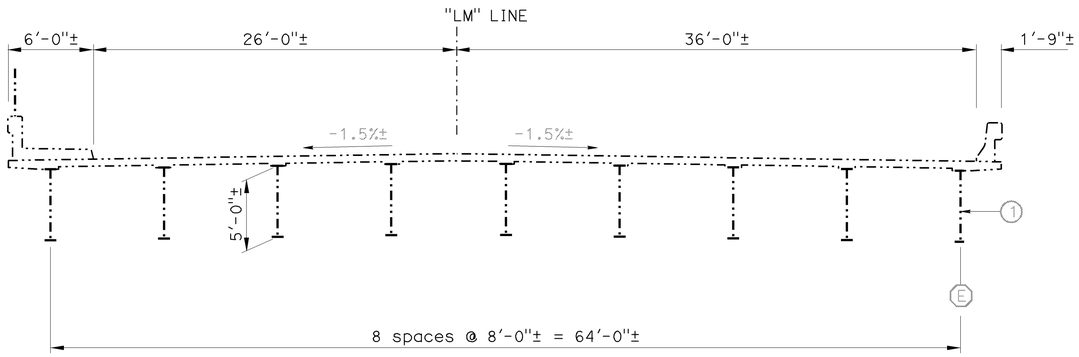

## LAKE MURRAY BLVD OC - PLAN

Br No. 57-0341, Rte 8, PM 9.59
1" = 20'




## TYPICAL SECTION - SPAN 2

3/16" = 1'-0"




## TYPICAL SECTION - SPAN 1

3/16" = 1'-0"

**CONSTRUCTION NOTES:**

1. All welds shown to conform to AWS D1.5.
2. All new structural steel to be ASTM Designation A709 Grade 36 (Fy=36 ksi).
3. For heat straightening, existing girder web and flange are Type A7 (carbon, Fy=33 ksi).
4. All new bolts to be high strength bolts (ASTM A325).
5. Paint on existing steel contains lead-based primer.

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LAKE MURRAY BLVD OC — BRIDGE NO 57-0341

QUANTITIES

| | |
|---|---|
| BRIDGE REMOVAL (PORTION) | LUMP SUM |
| CLEAN EXPANSION JOINT | 310 LF |
| JOINT SEAL (MR 1/2") | 310 LF |
| STRUCTURAL STEEL (BRIDGE) | 820 LB |
| HEAT STRAIGHTEN STEEL GIRDER | LUMP SUM |
| CLEAN AND PAINT STRUCTURAL STEEL | LUMP SUM |
| SPOT BLAST CLEAN AND PAINT UNDERCOAT | 20 SQFT |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TONY D. BRAKE<br>DESIGN ENGINEER | DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | | |
| | DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake | |
| | QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert | |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 10

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 6-25-12

SHEET 11 OF 19

FILE => 11-2m1501-b-gp10.dgn

USERNAME => s1292239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:20

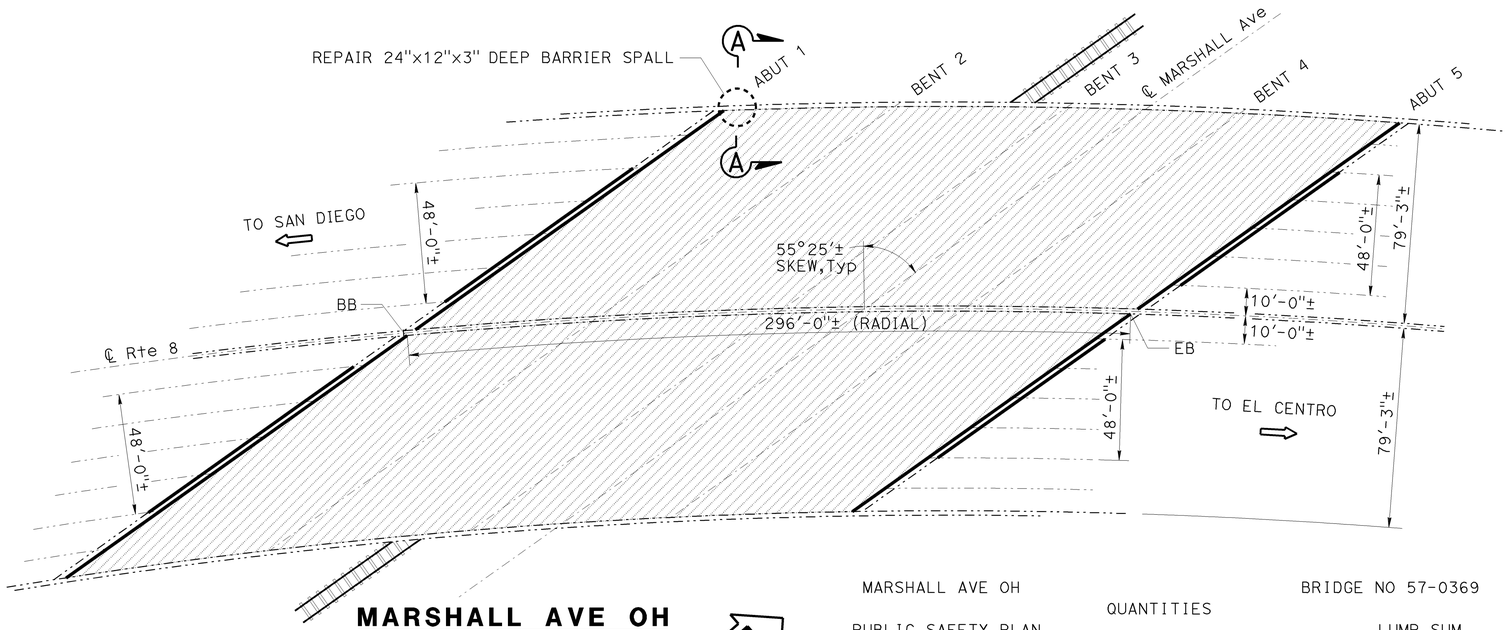
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 40 | 47 |

REGISTERED CIVIL ENGINEER — 01/18/13 DATE

02-25-13
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA




## MARSHALL AVE OH

Br No. 57-0369, Rte 8, PM 14.95
1" = 30'

MARSHALL AVE OH — BRIDGE NO 57-0369

QUANTITIES

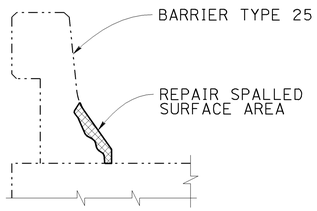
| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| REPAIR SPALLED SURFACE AREA | 2 | SQFT |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 46,920 | SQFT |
| TREAT BRIDGE DECK | 46,920 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 590 | GAL |
| CLEAN EXPANSION JOINT | 898 | LF |
| JOINT SEAL (MR 1/2") | 898 | LF |

## LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates location of clean expansion joint and placement of new joint seal.
- Indicates repair spalled surface area.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.

## NOTES:

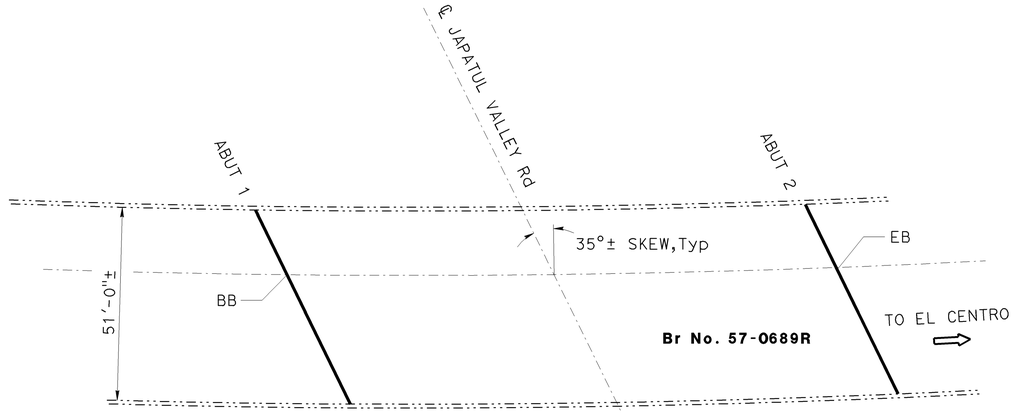
1. For spalled surface repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.




## SECTION A-A

## BARRIER RAIL REPAIR

NO SCALE




## ROUTE 8/79 SEPARATION

Br No. 57-0689R, Rte 8, PM R37.83
1" = 20'

ROUTE 8/79 SEPARATION — BRIDGE NO 57-0689R

QUANTITIES

| | | |
|---|---|---|
| CLEAN EXPANSION JOINT | 124 | LF |
| JOINT SEAL (MR 1/2") | 124 | LF |

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TONY D. BRAKE, DESIGN ENGINEER | DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | | |
| | DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake | |
| | QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert | |

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE — STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

**RTE 5,8,67,94,163 BRIDGES**
**GENERAL PLAN NO. 11**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 12 | 19 |

FILE => 11-2m1501-b-gp11.dgn

USERNAME => s1292339 DATE PLOTTED => 25-JAN-2013 TIME PLOTTED => 12:34

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 41 | 47 |

REGISTERED CIVIL ENGINEER — 01/18/13 DATE

02-25-13
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

## LEGEND:

Indicates existing.

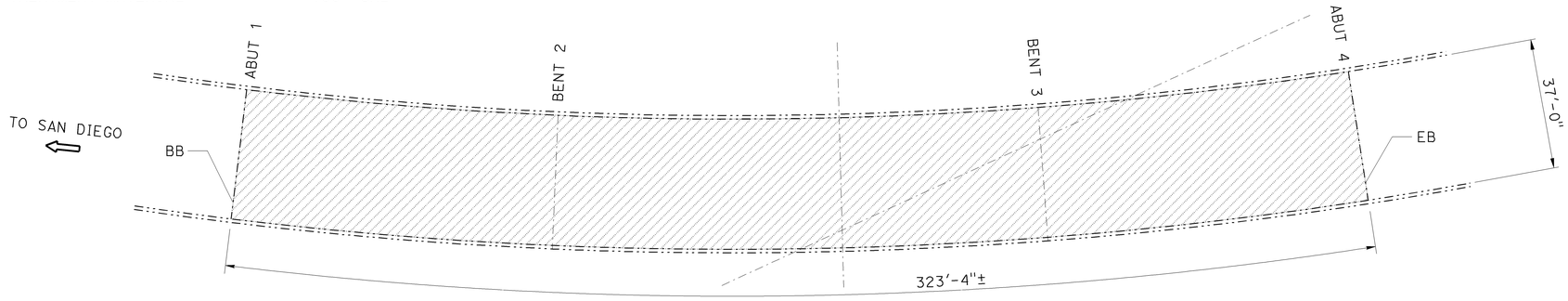
Indicates direction of traffic.

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

S67-W8 CONNECTOR OC — BRIDGE NO 57-0557F

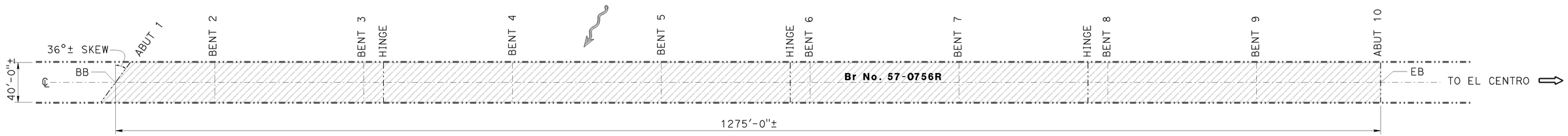
QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 11,960 | SQFT |
| TREAT BRIDGE DECK | 11,960 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 150 | GAL |




## S67-W8 CONNECTOR OC

Br No. 57-0557F, Rte 67, PM R0.16
1" = 20'




## LA POSTA CREEK

Br No. 57-0756R, Rte 8, PM R56.78
1" = 50'

LA POSTA CREEK — BRIDGE NO 57-0756R

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 51,000 | SQFT |
| TREAT BRIDGE DECK | 51,000 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 640 | GAL |

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

| | BY | CHECKED |
|---|---|---|
| DESIGN | Edward Nahm | Tony Brake |
| DETAILS | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake |

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

| | BY | CHECKED |
|---|---|---|
| LAYOUT | Tom Dang | Tony Brake |
| SPECIFICATIONS | Steve Seifert | PLANS AND SPECS COMPARED: Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.: Various
POST MILE: Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 12

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 13 | 19 |

FILE => 11-2m1501-b-gp12.dgn

USERNAME => s1292339 DATE PLOTTED => 25-JAN-2013 TIME PLOTTED => 12:35

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 42 | 47 |

01/18/13
REGISTERED CIVIL ENGINEER — DATE

02-25-13
PLANS APPROVAL DATE

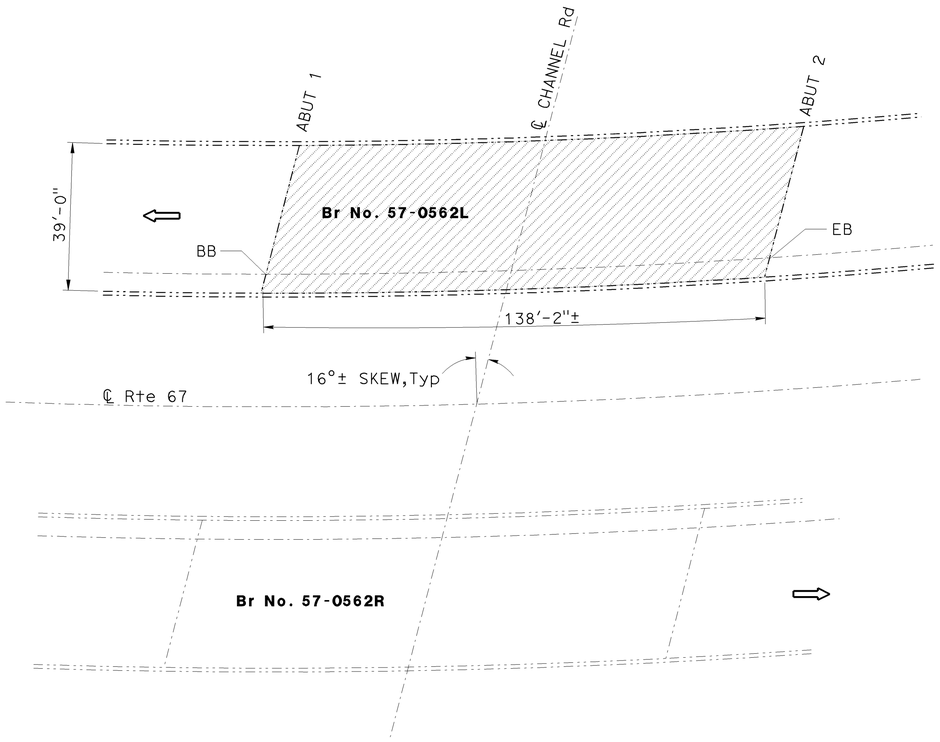
REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

CHANNEL ROAD UC — BRIDGE NO 57-0562L

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 5,390 | SQFT |
| TREAT BRIDGE DECK | 5,390 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 70 | GAL |




## CHANNEL ROAD UC

Br No. 57-0562L, Rte 67, PM R5.19
1" = 20'

## LEGEND:

Indicates existing.

Indicates direction of traffic.

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

Indicates location of clean expansion joint and placement of new joint seal.

Indicates repair spalled surface area.

## NOTES:

1. For spalled surface repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

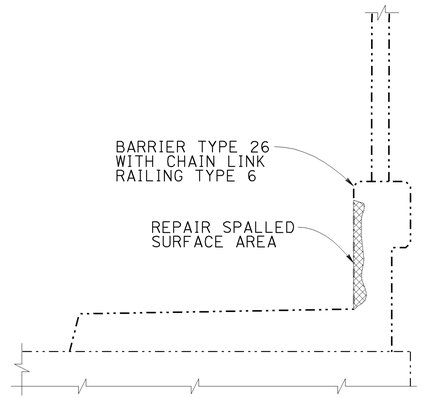
**BARRIER RAIL REPAIR**

| BRIDGE NAME | BRIDGE NUMBER | BARRIER AREA (SQFT) | APPROX AREA DAMAGED | REPAIR SPALLED SURFACE AREA (SQFT) |
|---|---|---|---|---|
| CAMPO ROAD UC | 57-0803 | 1674 | 1% | 17 |

CAMPO ROAD OC — BRIDGE NO 57-0803

QUANTITIES

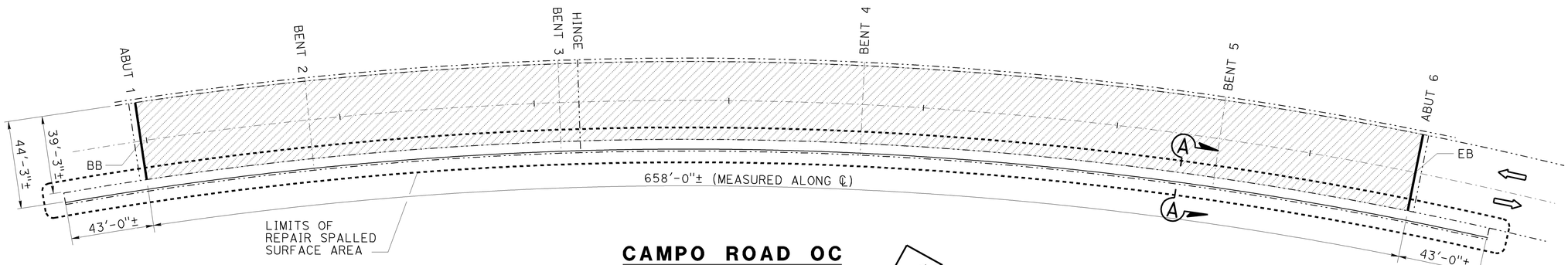
| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| REPAIR SPALLED SURFACE AREA | 17 | SQFT |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 25,830 | SQFT |
| TREAT BRIDGE DECK | 25,830 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 325 | GAL |
| CLEAN EXPANSION JOINT | 80 | LF |
| JOINT SEAL (MR 1 1/2") | 80 | LF |




## SECTION A-A

## BARRIER RAIL REPAIR

NO SCALE




## CAMPO ROAD OC

Br No. 57-0803, Rte 94, PM R10.72
1" = 30'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | DESIGN | BY Edward Nahm | CHECKED Tony Brake | LOAD FACTOR DESIGN | LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD | | |
| TONY D. BRAKE | DETAILS | BY Tom Dang | CHECKED Tony Brake | LAYOUT | BY Tom Dang | CHECKED Tony Brake | |
| DESIGN ENGINEER | QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | SPECIFICATIONS | BY Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert | |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

**RTE 5,8,67,94,163 BRIDGES**
**GENERAL PLAN NO. 13**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 14 | 19 |

FILE => 11-2m1501-b-gp13.dgn

USERNAME => s1292339 DATE PLOTTED => 28-JAN-2013 TIME PLOTTED => 08:58

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 43 | 47 |

REGISTERED CIVIL ENGINEER — 01/18/13 DATE

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

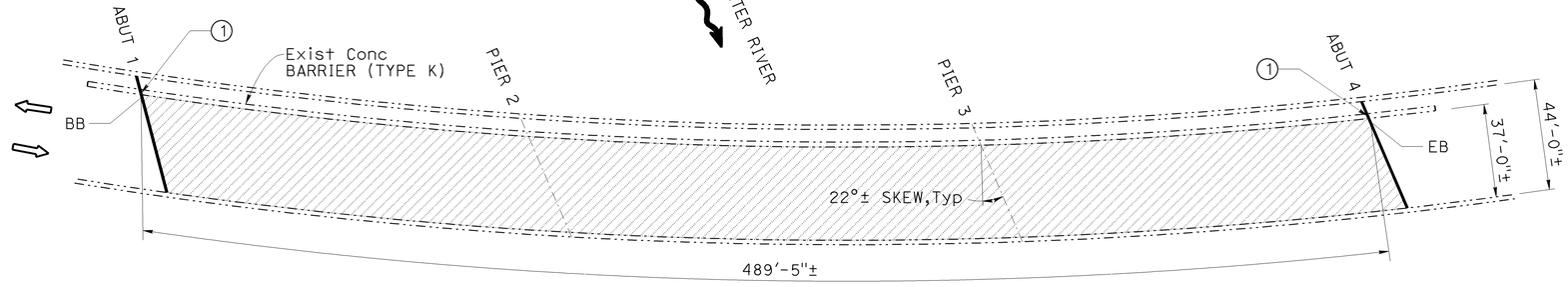
## LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.
- Indicates location of clean expansion joint and placement of new joint seal.
- (1) Indicates location of concrete barrier (Type K) removal ( 2ft wide x 20ft long, Tot 3) prior to joint seal installation. Place the concrete barrier (Type K) back to original location after joint seal replacement.

SWEETWATER RIVER — BRIDGE NO 57-0962

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 18,110 | SQFT |
| TREAT BRIDGE DECK | 18,110 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 225 | GAL |
| CLEAN EXPANSION JOINT | 96 | LF |
| JOINT SEAL (MR 2") | 96 | LF |



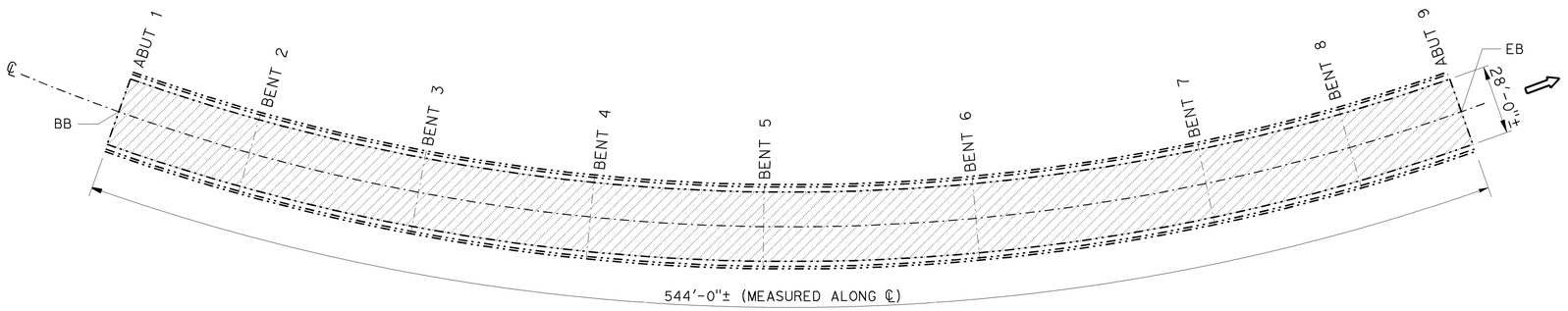

## SWEETWATER RIVER

Br No. 57-0962, Rte 94, PM 15.27
1" = 30'

N163-N5 CONNECTOR OC — BRIDGE NO 57-0392G

QUANTITIES

| | | |
|---|---|---|
| PUBLIC SAFETY PLAN | LUMP | SUM |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 15,230 | SQFT |
| TREAT BRIDGE DECK | 15,230 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 190 | GAL |




## N163-N5 CONNECTOR OC

Br No. 57-0392G, Rte 163, PM 0.88
1" = 30'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

| | BY | CHECKED |
|---|---|---|
| DESIGN | Edward Nahm | Tony Brake |
| DETAILS | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake |

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

| | BY | CHECKED |
|---|---|---|
| LAYOUT | Tom Dang | Tony Brake |
| SPECIFICATIONS | Steve Seifert | PLANS AND SPECS COMPARED Steve Seifert |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GENERAL PLAN NO. 14

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

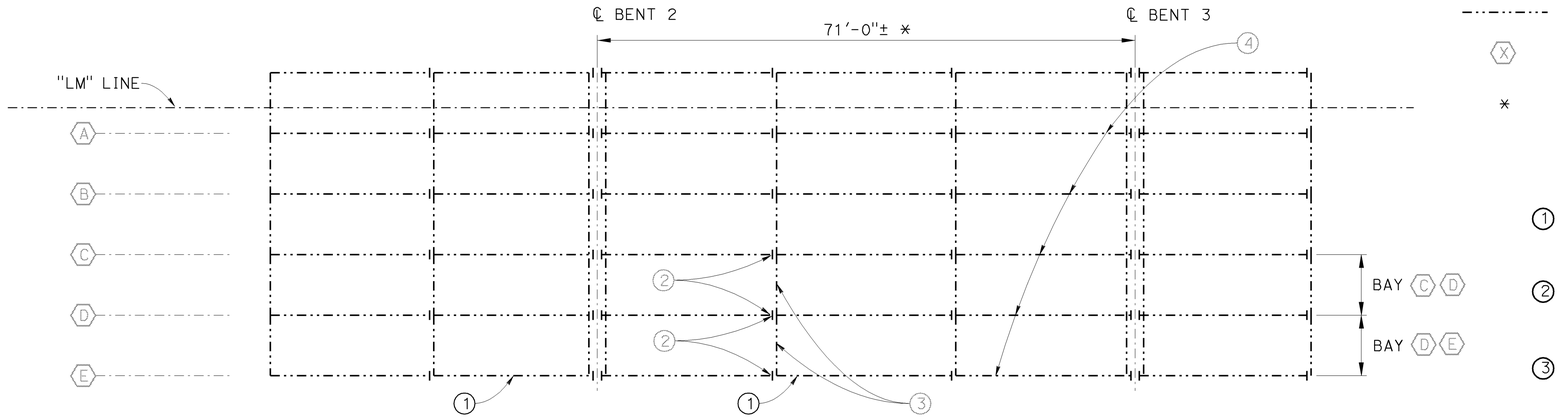
UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 15 | 19 |

FILE => 11-2m1501-b-gp14.dgn

USERNAME => s1239239 DATE PLOTTED => 25-JAN-2013 TIME PLOTTED => 12:46




## PARTIAL GIRDER LAYOUT

NO SCALE
(Br No. 57-0341)

## LEGEND:

Indicates existing.

Indicates girder line designation.

Indicates approx limit of clean and paint bottom flange girders.

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 44 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

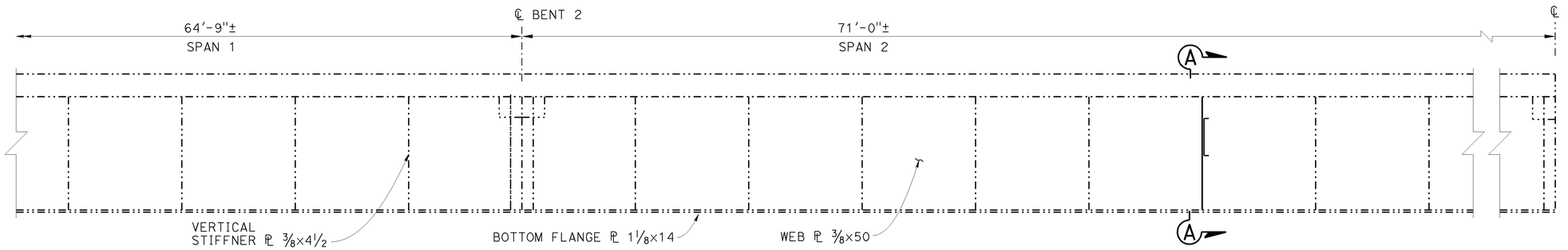
EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

02-25-13
PLANS APPROVAL DATE

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

## NOTES:

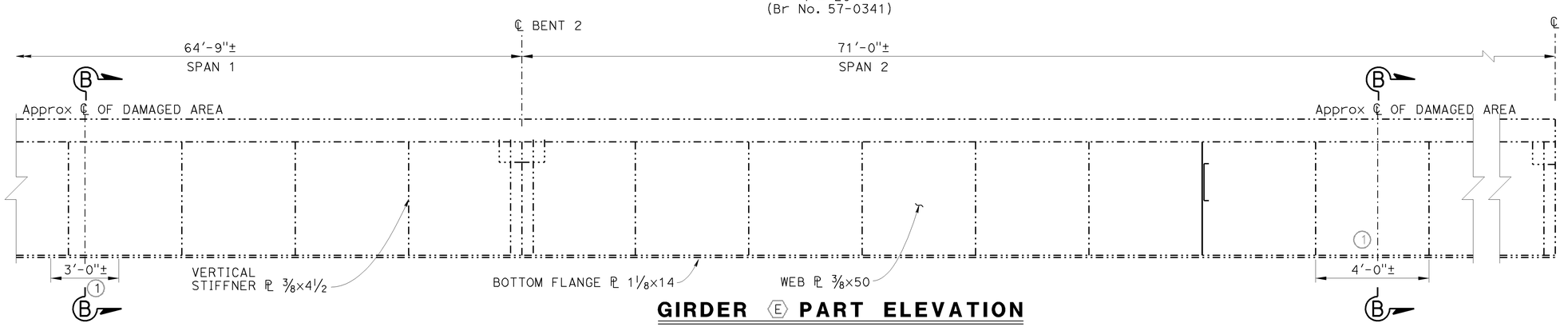
1. Indicates location of heat and force straighten damaged girder (E) as approved by the Engineer. Remove existing paint prior to heat straightened operation. See SECTION B-B of "GIRDER REPAIR DETAILS NO. 2" sheet.
2. Indicates location of replace damaged intermediate stiffeners PL 3/8" x4 1/2" at girder (C), (D), and (E). See SECTION A-A of "GIRDER REPAIR DETAILS NO. 2" sheet (Total 4).
3. Indicates location of replace damaged intermediate diaphragm MC 18x42.7 at bays C-D & D-E. See SECTION A-A of "GIRDER REPAIR DETAILS NO. 2" sheet (Total 2). Attach to replaced stiffeners with 7/8" diameter HS bolts.
4. Indicates location of clean and paint bottom flange PL 1 1/8x14 of the girders (A), (B), (C), (D) and (E) at Span 2 (71′ per each girder). See TYPICAL PAINT LIMIT DETAIL on "GIRDER REPAIR DETAILS NO. 2" sheet.
5. For SECTION A-A and SECTION B-B, see "GIRDER REPAIR DETAILS NO. 2" sheet.




## GIRDER (C)(D)(E) PART ELEVATION

1"= 20′
(Br No. 57-0341)

1. All details not shown for clarity.
2. For Section A-A, see "GIRDER REPAIR DETAILS NO. 2" sheet.
3. Replace damaged intermediate stiffeners and diaphragms.
4. Spot blast, clean and paint steel on all repaired locations as aprroved by Engineer.




## GIRDER (E) PART ELEVATION

1"= 20′
(Br No. 57-0341)

1. All details not shown for clarity.
2. For Section B-B, see "GIRDER REPAIR DETAILS NO. 2" sheet.
3. Heat and force straighten damaged girder.
4. Spot blast, clean and paint steel on all repaired locations as aprroved by Engineer.

NOTE:
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| | BY | CHECKED |
|---|---|---|
| DESIGN | Edward Nahm | Tony Brake |
| DETAILS | Tom Dang | Tony Brake |
| QUANTITIES | Edward Nahm | Tony Brake |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GIRDER REPAIR DETAILS NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 16 | 19 |

FILE => 11-2m1501-c-girdrrepdt101.dgn

USERNAME => s117283 DATE PLOTTED => 04-MAR-2013 TIME PLOTTED => 11:07

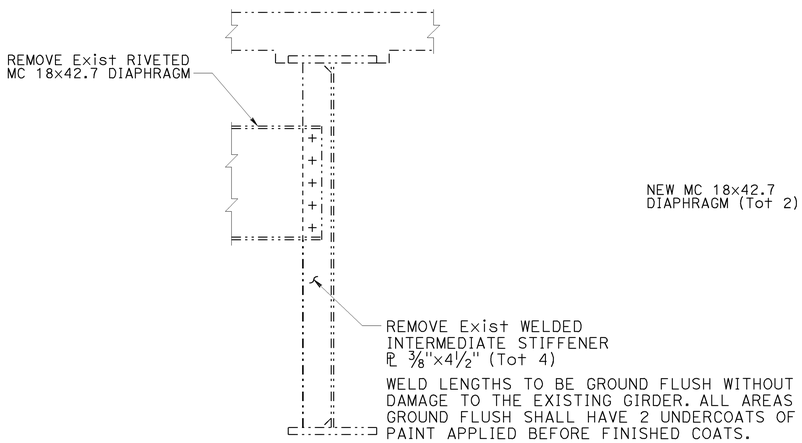
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 45 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

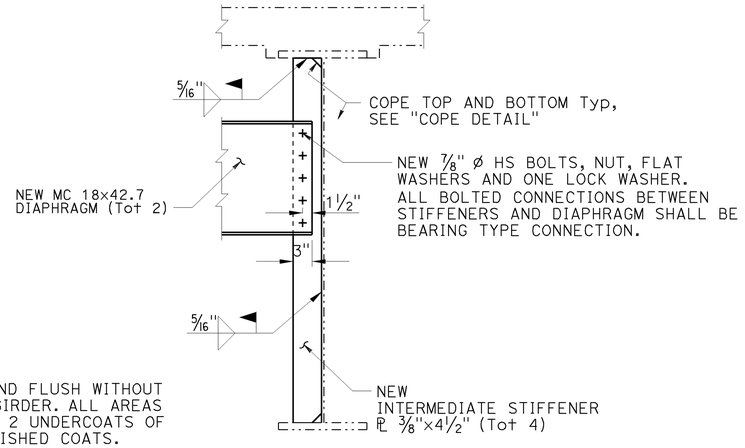
02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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

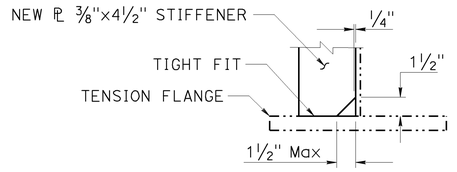



**EXISTING**




**RECONSTRUCTION**

## SECTION A-A



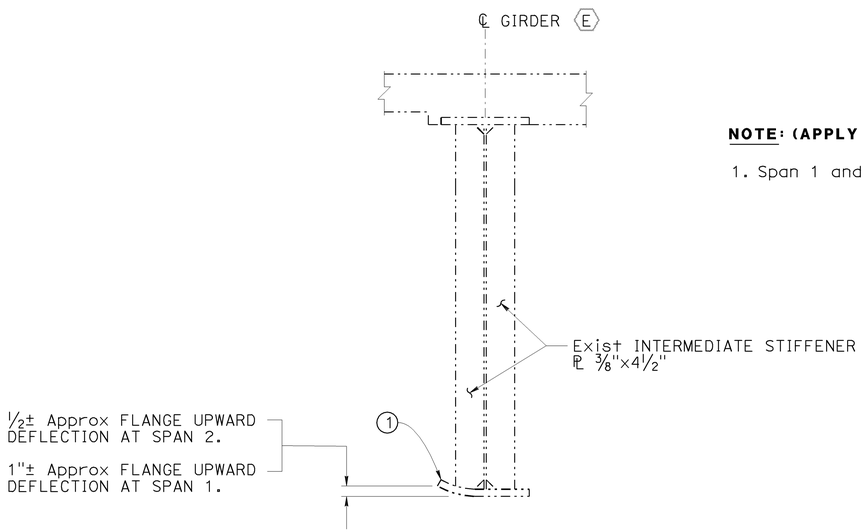

## COPE DETAIL

## LEGEND:

| | |
|---|---|
| ----·----·---- | Indicates existing. |
| ——— | Indicates approx limit of clean and paint bottom flange girders. |
| ① | Indicates location of heat and force straighten damaged girder as approved by the Engineer. |

## NOTES:

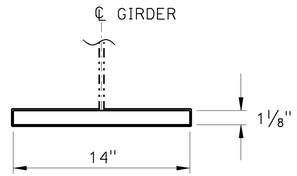
1. For location of SECTION A-A & SECTION B-B see "GIRDER REPAIR DETAILS NO. 1" sheet.




## SECTION B-B

**NOTE: (APPLY TO SECTION B-B)**

1. Span 1 and 2 similar.




## TYPICAL PAINT LIMIT DETAIL

## LAKE MURRAY BLVD

NO SCALE
(Br No. 57-0341)

NOTE:
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| | | | |
|---|---|---|---|
| DESIGN | BY Edward Nahm | CHECKED Tony Brake | |
| DETAILS | BY Tom Dang | CHECKED Tony Brake | |
| QUANTITIES | BY Edward Nahm | CHECKED Tony Brake | |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# GIRDER REPAIR DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 17 | 19 |

FILE => 11-2m1501-c-girdrrepdt102.dgn

USERNAME => s129239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:21

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 46 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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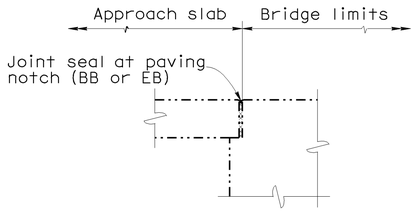
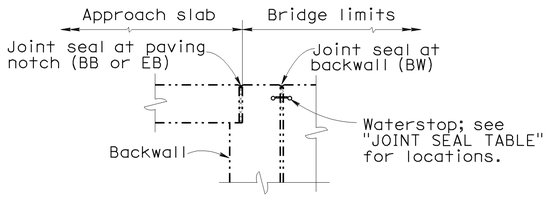
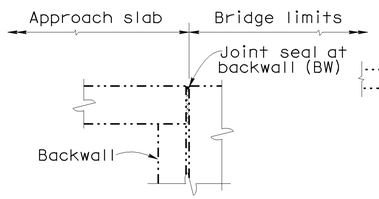


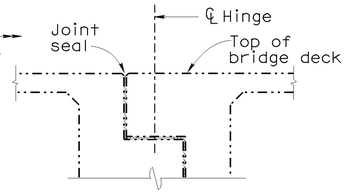

DIAPHRAGM ABUTMENT



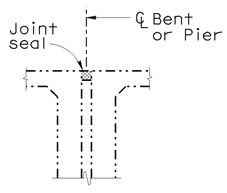

ABUTMENT WITH BACKWALL AND PAVING NOTCH




ABUTMENT WITH BACKWALL




HINGE




BENT OR PIER

# JOINT SEAL LOCATION

NO SCALE

Abutment joint seal is not required with AC roadway pavement transverse contact joint.

## JOINT SEAL TABLE

| BRIDGE NAME | BRIDGE NUMBER | LOCATION | | MINIMUM "MR" (INCH) | APPROX JOINT LENGTH (LF) | EXISTING WATERSTOP | APPROX DEPTH TO CLEAN EXP JOINT (INCH) |
|---|---|---|---|---|---|---|---|
| N5-6TH AVENUE/N&S163-N5 OC | 57-0397S | ABUT 1 | BW | 1½ | 22 | YES | 6 |
| | | ABUT 4 | BW | 1½ | 22 | YES | 6 |
| WASHINGTON STREET UC | 57-0546L | ABUT 1 | PN | ½ | 74 | NO | 9 |
| | | HINGE 2 | DJ | 1½ | 74 | YES | 6 |
| | | HINGE 3 | DJ | 1½ | 74 | YES | 6 |
| | | ABUT 4 | PN | ½ | 74 | NO | 9 |
| NOELL STREET UC | 57-0547 | ABUT 1 | PN | ½ | 119 | NO | 9 |
| | | BENT 2 | DJ | 1½ | 161 | NO | 9 |
| | | BENT 3 | DJ | 1½ | 161 | NO | 9 |
| | | ABUT 4 | PN | ½ | 119 | NO | 9 |
| ROSE CANYON CREEK | 57-0289 | SB | DJ** | TYPE AL | 445 | NO | 6 |
| | | NB | DJ** | TYPE AL | 445 | NO | 6 |
| CHESTNUT AVENUE UC | 57-0275 | ABUT 1 | PN | ½ | 141 | NO | 9 |
| | | ABUT 2 | PN | ½ | 141 | NO | 9 |
| BUENA VISTA LAGOON | 57-0277 | ABUT 1 | PN | ½ | 166 | NO | 9 |
| | | ABUT 4 | PN | ½ | 164 | NO | 9 |
| LAKE MURRAY BLVD OC | 57-0341 | ABUT 1 | BW | ½ | 62 | NO | 9 |
| | | BENT 2 | DJ | ½ | 62 | NO | 9 |
| | | BENT 3 | DJ | ½ | 62 | NO | 9 |
| | | BENT 4 | DJ | ½ | 62 | NO | 9 |
| | | ABUT 5 | BW | ½ | 62 | NO | 9 |
| MARSHALL AVENUE OH | 57-0369 | ABUT 1 | PN | ½ | 169 | NO | 9 |
| | | ABUT 1 | BW | ½ | 280 | YES | 6 |
| | | ABUT 4 | BW | ½ | 280 | YES | 6 |
| | | ABUT 4 | PN | ½ | 169 | NO | 9 |
| ROUTE 8/79 SEPARATION | 57-0689R | ABUT 1 | PN | ½ | 62 | NO | 9 |
| | | ABUT 2 | PN | ½ | 62 | NO | 9 |
| CAMPO ROAD OC | 57-0803 | ABUT 1 | BW | 1½ | 40 | YES | 6 |
| | | ABUT 6 | BW | 1½ | 40 | YES | 6 |
| SWEETWATER RIVER | 57-0962 | ABUT 1 | PN | 2 | 48 | NO | 9 |
| | | ABUT 4 | PN | 2 | 48 | NO | 9 |

PN = Paving notch
BW = Backwall
DJ** = Longitudinal Deck Joint
DJ= Deck Joint

## NOTES:

The following notes apply to JOINT SEAL TYPE A:

Install Joint Seal (MR = 1/2 ") or Silicone Joint Seal 3" up into curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.

For details not shown see STANDARD PLAN B6-21.

The following notes apply to JOINT SEAL TYPE B:

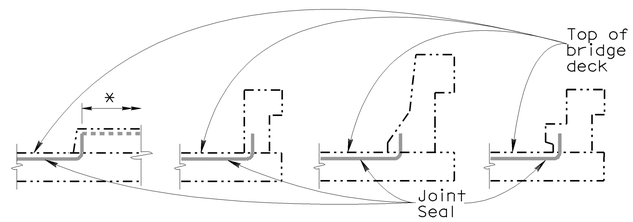
1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.

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

3) W1 shall be the smaller of the values determined as follows:
   A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
   B) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3.0 PSI.

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

For details not shown see STANDARD PLAN B6-21.




BARRIER RAIL

# JOINT SEAL AT LOW SIDE OF DECK

Note: Details shown for illustration purposes only.

For use only where deck joint matches the sidewalk, curb or barrier rail joint.

* Extension of joint seal will be determined by the Engineer if necessary.

NOTE:
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|---|---|---|
| DESIGN | Edward Nahm | Tony Brake |
| DETAILS | Tom Dang | Tony Brake |
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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

**RTE 5,8,67,94,163 BRIDGES**

**MISCELLANEOUS DETAILS NO. 1**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 18 | 19 |

FILE => 11-2m1501-d-miscdt101.dgn

USERNAME => s129239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 20:43

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 11 | SD | 5,8,67, 94,163 | Var | 47 | 47 |

REGISTERED CIVIL ENGINEER — DATE 01/18/13

02-25-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/14 — CIVIL — STATE OF CALIFORNIA

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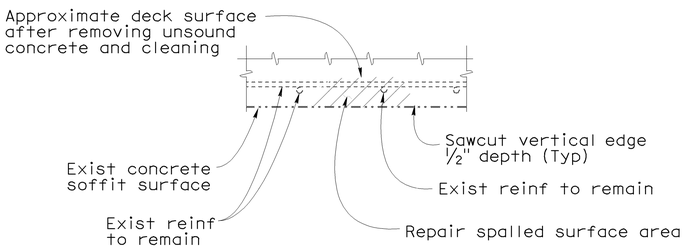
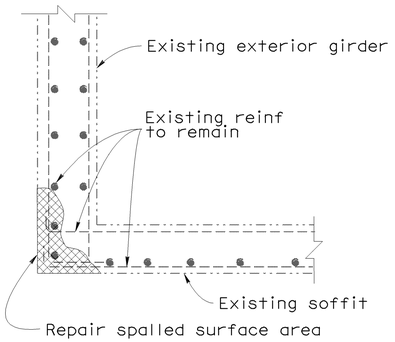
CONSTRUCTION NOTES:

1. Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
2. It is responsibility of the Contractor to repair any reinforcement that is accidently cut by saw cutting operations.
3. When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
4. The saw cut depth shall not exceed ½ inch or the concrete cover over the top steel reinforcing bars, whichever is less.
5. Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original spall surface with rapid setting concrete patch.



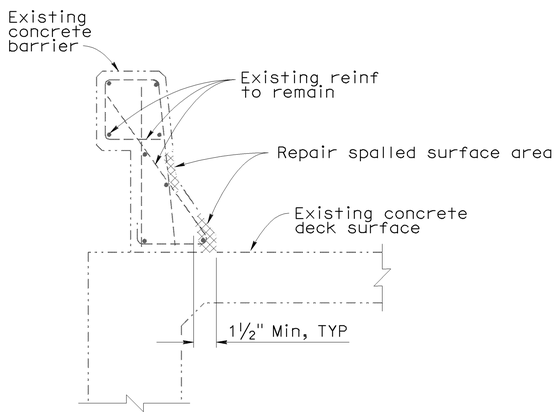

## SOFFIT REPAIR DETAIL

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.



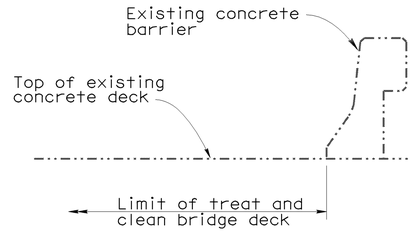

## SPALLED SURFACE AREA DETAIL

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

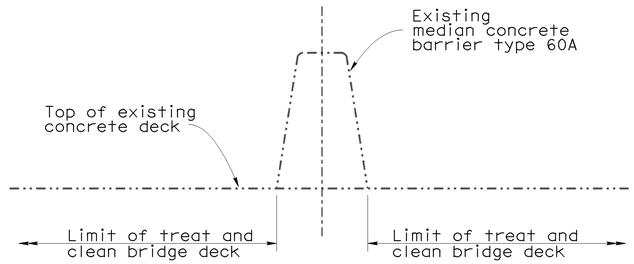



## CONCRETE BARRIER SPALL REPAIR DETAIL

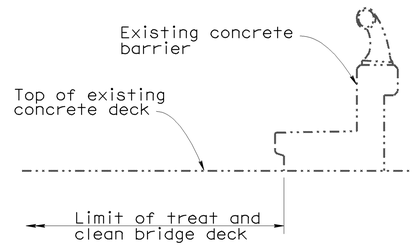
Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.



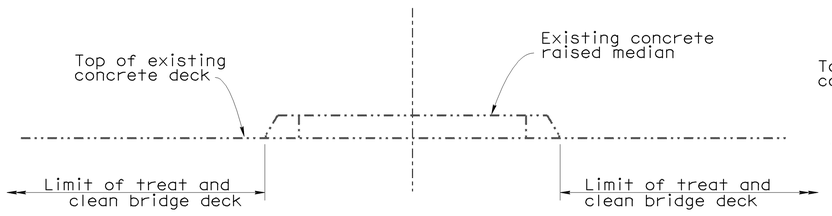

EOD BARRIER



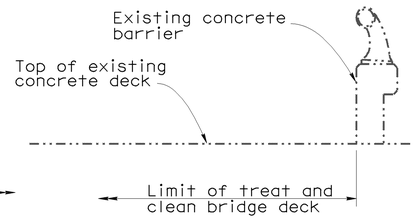

MEDIAN BARRIER




SIDEWALK BARRIER TYPE 2




RAISED MEDIAN




SIDEWALK BARRIER TYPE 1

## TYPICAL LIMITS OF DECK WORK

NO SCALE

NOTE:
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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

# RTE 5,8,67,94,163 BRIDGES
# MISCELLANEOUS DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 -

UNIT: 3489
PROJECT NUMBER & PHASE: 1112000123
CONTRACT NO.: 11-2M1501

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

| REVISION DATES | | | | SHEET | OF |
|---|---|---|---|---|---|
| 6-25-12 | | | | 19 | 19 |

FILE => 11-2m1501-d-miscdt02.dgn

USERNAME => s129239 DATE PLOTTED => 17-JAN-2013 TIME PLOTTED => 21:08