

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 10 | Mer | 5 | 13.9/27.4 | 1 | 21 |

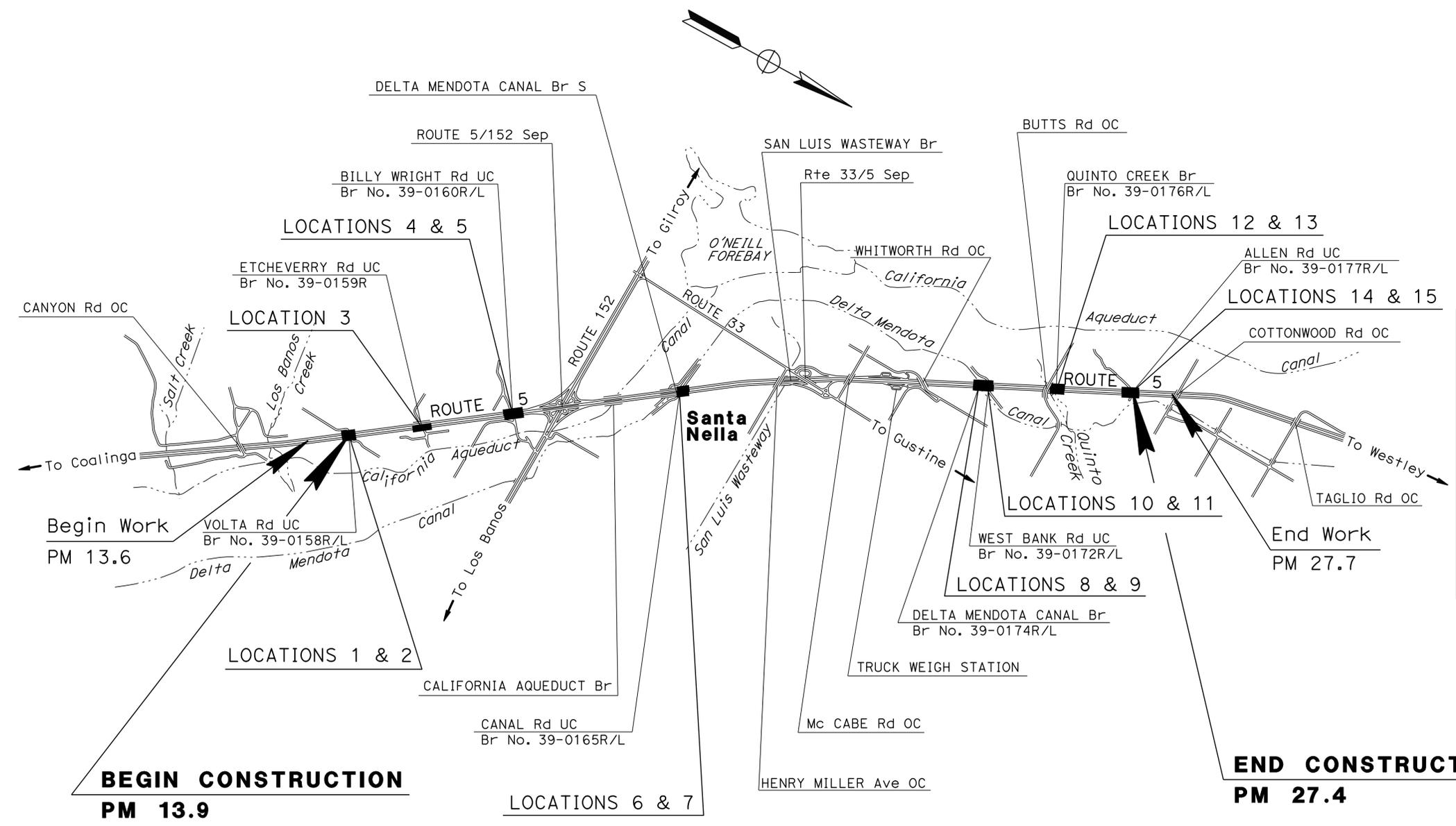


STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN MERCED COUNTY
AT AND NEAR SANTA NELLA
AT VARIOUS LOCATIONS
FROM VOLTA ROAD UNDERCROSSING
TO ALLEN ROAD UNDERCROSSING
 TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

| | |
|------------------------|---------------------------------------|
| SHEET NO. | DESCRIPTION |
| 1 | TITLE AND LOCATION MAP |
| 2 | CONSTRUCTION DETAILS |
| 3 | CONSTRUCTION AREA SIGNS |
| 4-6 | TRAFFIC HANDLING PLANS AND QUANTITIES |
| 7 | PAVEMENT DELINEATION QUANTITIES |
| 8 | SUMMARY OF QUANTITIES |
| 9-13 | REVISED STANDARD PLANS |
| STRUCTURE PLANS | |
| 14-21 | STRUCTURE PLANS |

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



LOCATIONS OF CONSTRUCTION

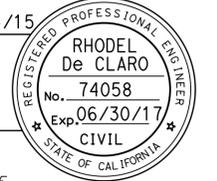
| Loc No. | PM | BRIDGE NAME | BRIDGE No. |
|---------|-------|----------------------|------------|
| 1 | 13.87 | VOLTA ROAD UC | 39-0158L |
| 2 | 13.87 | VOLTA ROAD UC | 39-0158R |
| 3 | 15.12 | ETCHEVERRY ROAD UC | 39-0159R |
| 4 | 16.72 | BILLY WRIGHT ROAD UC | 39-0160L |
| 5 | 16.72 | BILLY WRIGHT ROAD UC | 39-0160R |
| 6 | 19.65 | CANAL ROAD UC | 39-0165L |
| 7 | 19.65 | CANAL ROAD UC | 39-0165R |
| 8 | 24.84 | DELTA MENDOTA CANAL | 39-0174L |
| 9 | 24.86 | DELTA MENDOTA CANAL | 39-0174R |
| 10 | 24.93 | WEST BANK ROAD UC | 39-0172L |
| 11 | 24.93 | WEST BANK ROAD UC | 39-0172R |
| 12 | 25.96 | QUINTO CREEK | 39-0176L |
| 13 | 25.96 | QUINTO CREEK | 39-0176R |
| 14 | 27.40 | ALLEN ROAD UC | 39-0177L |
| 15 | 27.40 | ALLEN ROAD UC | 39-0177R |

PROJECT MANAGER
ALVIN MANGINDIN
 DESIGN MANAGER
ALVIN MANGINDIN

BEGIN CONSTRUCTION
PM 13.9

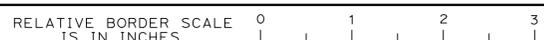
END CONSTRUCTION
PM 27.4

PROJECT ENGINEER *Rhodel De Claro* DATE 10/14/15
 REGISTERED CIVIL ENGINEER
 December 7, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



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

NO SCALE



USERNAME => s120300
DGN FILE => a1e090ab001.dgn

| | |
|--------------|-------------------|
| CONTRACT No. | 10-1E0904 |
| PROJECT ID | 1015000064 |

DATE PLOTTED => 08-DEC-2015 TIME PLOTTED => 14:37

| | | | | | | |
|--|-----------------------|------------------------|-------------------|-----------------|---------------|----------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED/DESIGNED BY | RHODEL DE CLARO | REVISOR | RDC | 11/16/15 |
| | | | MAINTENANCE | ALVIN MANGINDIN | DATE REVISION | 07/21/15 |
| Caltrans | | CHECKED BY | JOSE A. ALICEA II | DESIGNED BY | RDC | 10/14/15 |
| | | | | | RDC | 11/16/15 |

NOTE:

FOR COLD PLANE AC PAVEMENT DIMENSIONS AND LOCATIONS, SEE SUMMARY OF QUANTITIES SHEET.

LEGEND:

-  - COLD PLANE AC PAVEMENT
HMA (TYPE A)
-  - SHOULDER RUMBLE STRIP
(HMA, GROUND-IN INDENTATIONS)

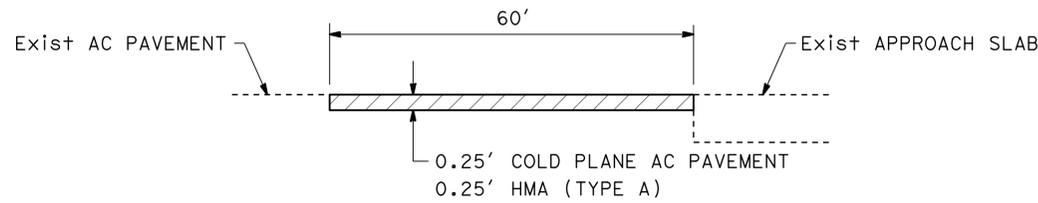
PAVEMENT CLIMATE REGION:

INLAND VALLEY

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 2 | 21 |

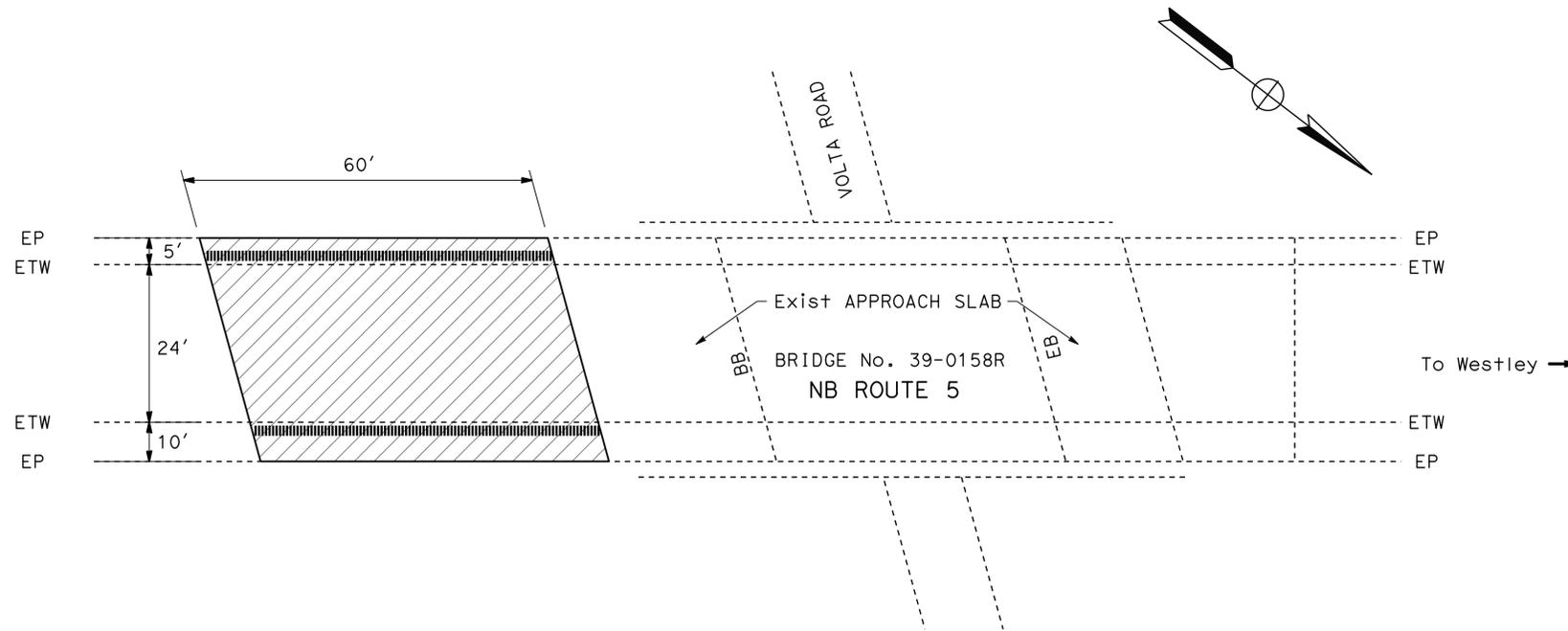
Rhodel DeClaro 10/14/15
 REGISTERED CIVIL ENGINEER DATE
 12-7-15
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 RHODEL De CLARO
 No. 74058
 Exp. 6/30/17
 CIVIL
 STATE OF CALIFORNIA



Mer-5-PM 13.87
 VOLTA ROAD UNDERCROSSING
 Br No. 39-0158R

**LOCATION 2
 LONGITUDINAL CONFORM TAPER AT
 APPROACH BRIDGE DECK**



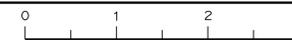
Mer-5-PM 13.87
 VOLTA ROAD UNDERCROSSING
 Br No. 39-0158R

**LOCATION 2
 CONFORM TAPER AND RUMBLE STRIP LAYOUT**

CONSTRUCTION DETAILS

NO SCALE

C-1



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
 CALCULATED/DESIGNED BY: CHECKED BY:
 RHODEL DE CLARO: JOSE A. ALICEA II
 REVISED BY: DATE REVISED:
 RDC: 07/21/15
 RDC: 10/14/15
 RDC: 11/6/15

NOTES:

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE TRAFFIC HANDLING PLANS.
3. EXISTING UTILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

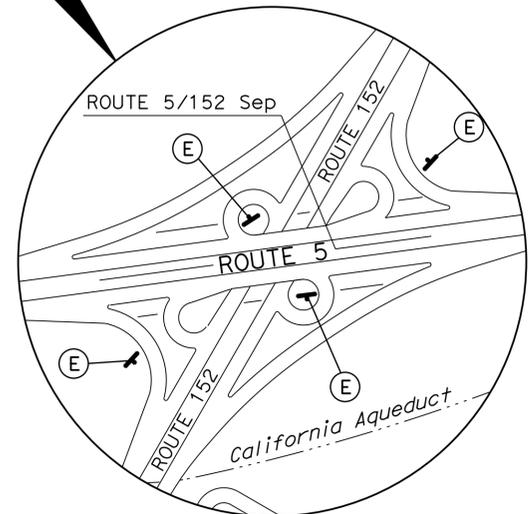
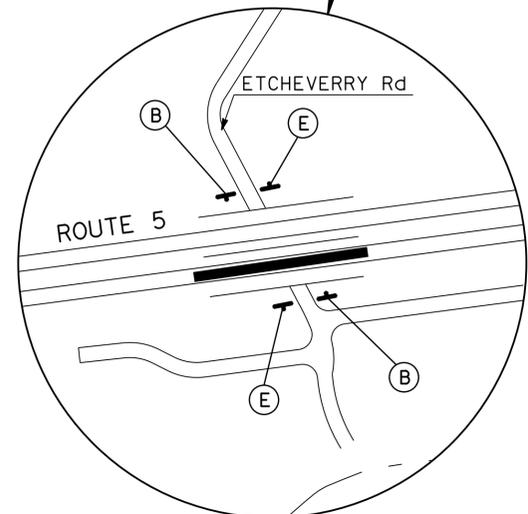
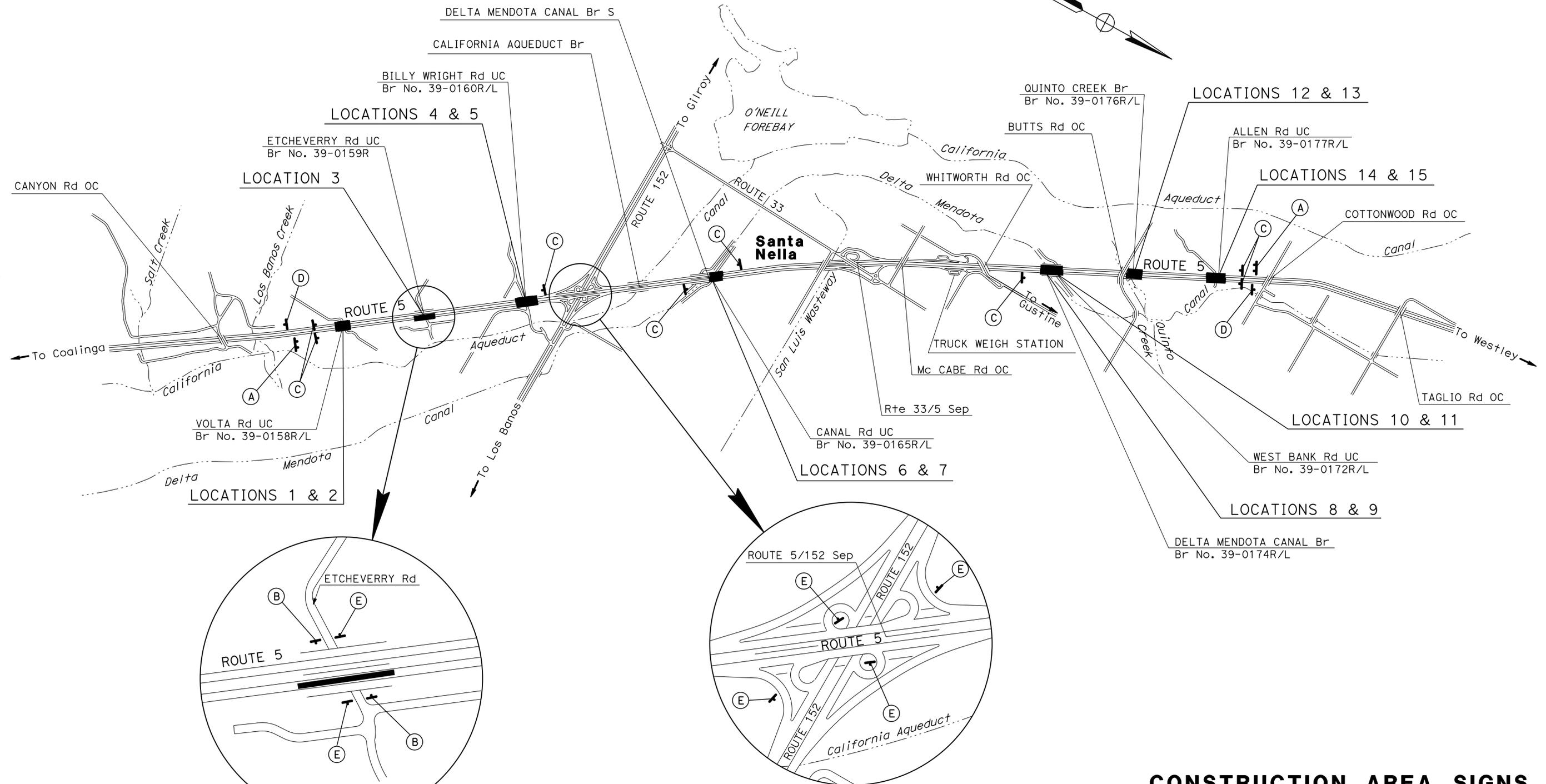
STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

| SIGN No. (X) | SIGN CODE | | PANEL SIZE | No. OF POSTS AND SIZE | No. OF SIGNS | SIGN MESSAGE |
|--------------|-----------|------------|------------|-----------------------|--------------|---------------------------------|
| | FEDERAL | CALIFORNIA | | | | |
| A | G20-1 | | 90" x 48" | 2 - 6" x 6" | 2 | ROAD CONSTRUCTION NEXT 14 MILES |
| B | W20-1 | | 36" x 36" | 1 - 4" x 6" | 2 | ROAD WORK AHEAD |
| C | W20-1 | | 48" x 48" | 1 - 4" x 6" | 8 | ROAD WORK AHEAD |
| D | G20-2 | | 48" x 24" | 1 - 4" x 6" | 2 | END ROAD WORK |
| E | G20-2 | | 36" x 18" | 1 - 4" x 4" | 6 | END ROAD WORK |

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 3 | 21 |

Rhodel DeClaro 10/14/15
 REGISTERED CIVIL ENGINEER DATE
 12-7-15
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 RHODEL De CLARO
 No. 74058
 Exp. 6/30/17
 CIVIL
 STATE OF CALIFORNIA



APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS
 NO SCALE
CS-1

DATE PLOTTED => 08-DEC-2015
 TIME PLOTTED => 14:37

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR
 MOHAMMED QATAMI

CALCULATED-DESIGNED BY
 CHECKED BY

RAJINI TEKALKOTE
 HUE NGUYEN

REVISED BY
 DATE REVISED

RDC
 9-23-15

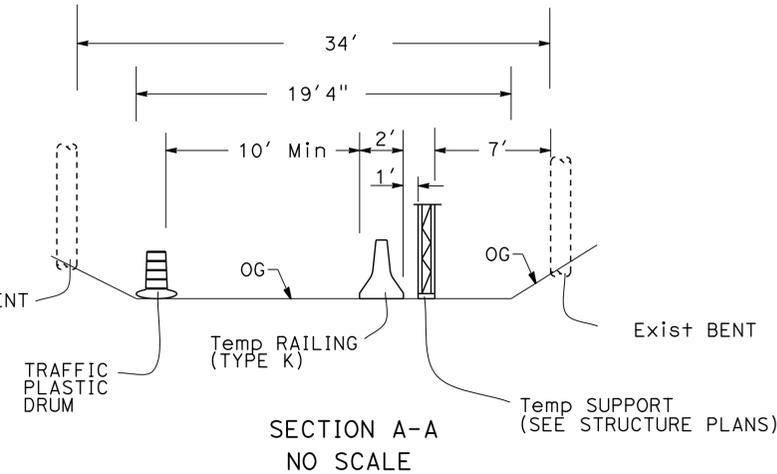
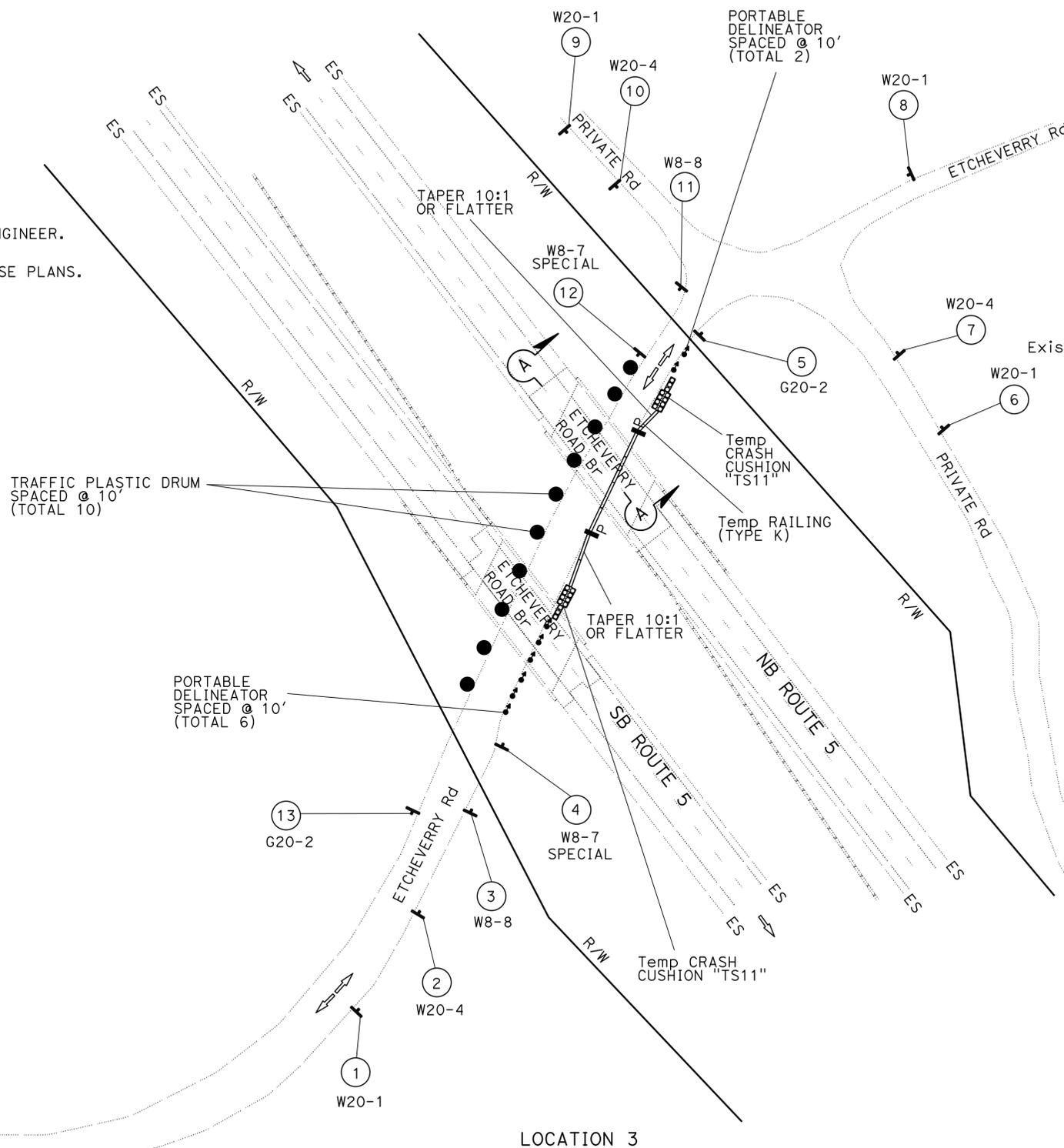
RT
 10-13-15

LEGEND:

-  - TEMPORARY RAILING (TYPE K)
-  - Temp CRASH CUSHION (ARRAY AS NOTED)
-  - PORTABLE DELINEATOR
-  - TEMPORARY TRAFFIC CONTROL SIGN No.
-  - OBJECT MARKER (TYPE P)
-  - TRAFFIC PLASTIC DRUM

NOTES:

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CAS, SEE CS-1 PLAN.
3. EXISTING UTILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.



| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 10 | Mer | 5 | 13.9/27.4 | 4 | 21 |

REGISTERED CIVIL ENGINEER DATE 10/14/15

PLANS APPROVAL DATE 12-7-15

HUE NGUYEN
 No. 74484
 Exp. 12/31/15
 CIVIL

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

TRAFFIC HANDLING PLAN (STAGE I) TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

NO SCALE

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 10 | Mer | 5 | 13.9/27.4 | 5 | 21 |

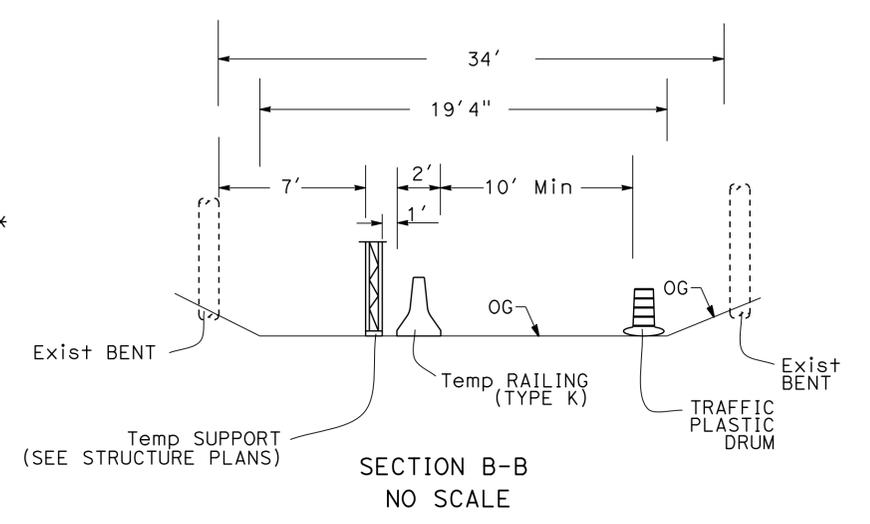
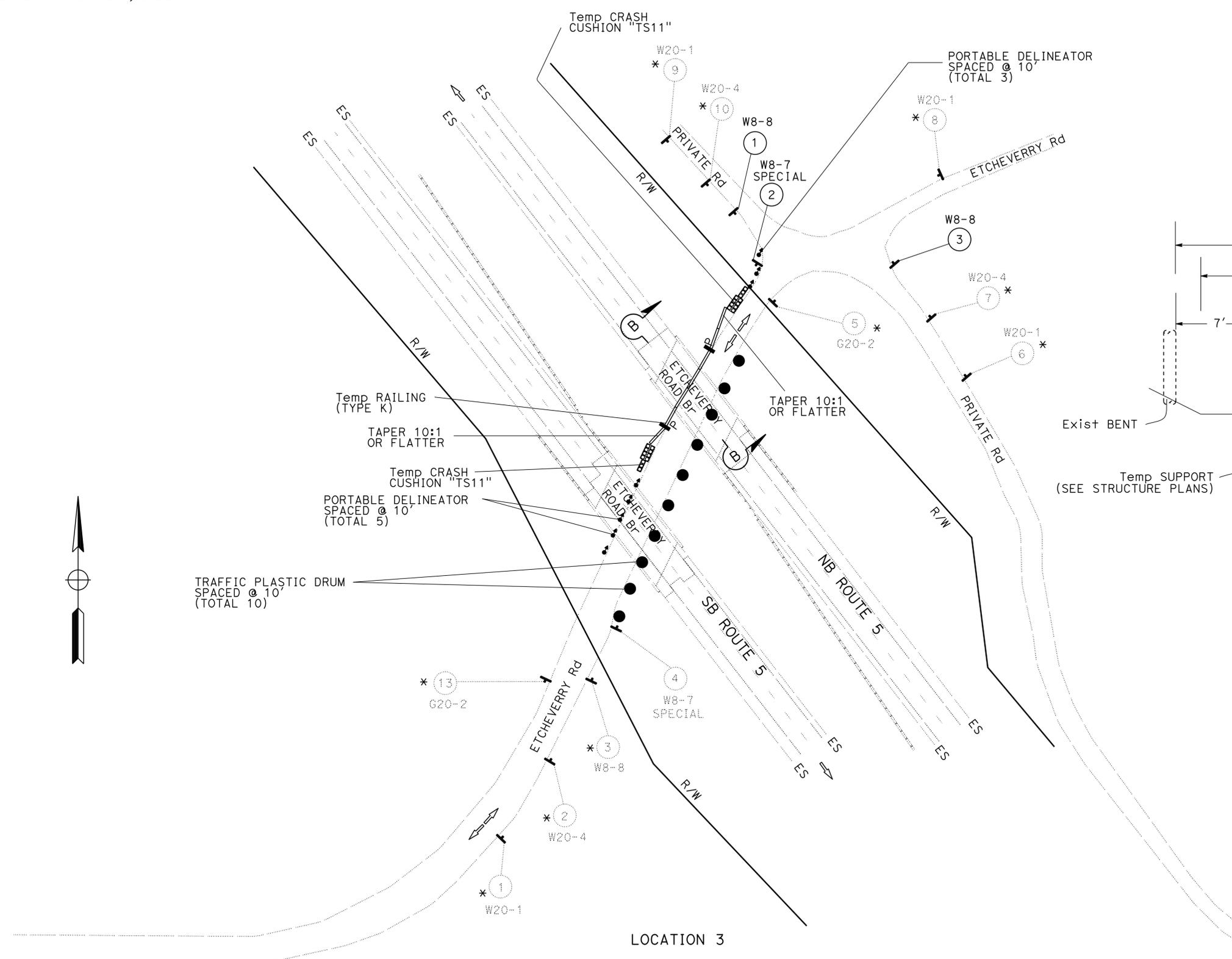
| | | |
|---------------------------|------|----------|
| <i>nhl</i> | | 10/14/15 |
| REGISTERED CIVIL ENGINEER | DATE | |
| 12-7-15 | | |
| PLANS APPROVAL DATE | | |

| | |
|----------------------------------|------------|
| REGISTERED PROFESSIONAL ENGINEER | HUE NGUYEN |
| No. 74484 | |
| Exp 12/31/15 | |
| CIVIL | |

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

NOTE (THIS SHEET ONLY):
 * - REMAIN IN PLACE FROM STAGE I, SHEET TH-1.

| | |
|--|-----------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | TRAFFIC DESIGN |
| FUNCTIONAL SUPERVISOR | MOHAMMED QATAMI |
| CALCULATED/DESIGNED BY | CHECKED BY |
| RAJINI TEKALKOTE | HUE NGUYEN |
| REVISOR | DATE |
| RDC | 9-23-15 |
| RT | 10-13-15 |

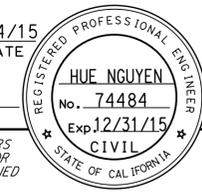


APPROVED FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN
(STAGE II)
TH-2

LAST REVISION | DATE PLOTTED => 08-DEC-2015 10-13-15 | TIME PLOTTED => 14:37

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 6 | 21 |


 REGISTERED CIVIL ENGINEER DATE 10/14/15
 12-7-15
 PLANS APPROVAL DATE


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

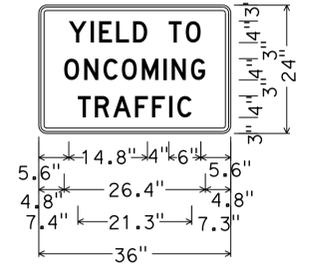
NOTES:

1. (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
2. FOR ADDITIONAL CAS, SEE CS-1 PLAN SHEET.

TRAFFIC HANDLING DELINEATION QUANTITIES

| SHEET No. | LOCATION/STATION | TEMPORARY RAILING (TYPE K) | TEMPORARY CRASH CUSHION MODULE | PORTABLE DELINEATOR | TRAFFIC PLASTIC DRUM | OBJECT MARKER TYPE P (N) |
|-----------|------------------------|----------------------------|--------------------------------|---------------------|----------------------|--------------------------|
| | | LF | EA | | | |
| TH-1 | PM 15.12 ETCHEVERRY Rd | 140 | 22 | 8 | 10 | 2 |
| TH-2 | | 140 | 22 | 8 | 10 | 2 |
| TOTAL | | 280 | 44 | 16 | 20 | |

SPECIAL SIGN



1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;
 [YIELD TO] D;
 [ONCOMING] D;
 [TRAFFIC] D;

CONSTRUCTION AREA SIGNS (PORTABLE)

| SHEET No. | SIGN No. | SIGN CODE | | SIGN MESSAGE | PANEL SIZE | No. POST AND SIZE | No. OF SIGNS EACH |
|-----------|----------|-----------|---------------|---------------------------|------------------|-------------------|-------------------|
| | | FEDERAL | CALIFORNIA | | | | |
| TH-1 | 1 | W20-1 | | ROAD WORK AHEAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 2 | W20-4 | | ONE LANE ROAD AHEAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 3 | W8-8 | | ROUGH ROAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 4 | W8-7 | | LOOSE GRAVEL | 36" x 36" | 1 - 4" x 6" | 1 |
| | | SPECIAL | | YIELD TO ONCOMING TRAFFIC | 36" x 24" | | |
| | 5 | G20-2 | | END ROAD WORK | 36" x 18" | 1 - 4" x 4" | 1 |
| | 6 | W20-1 | | ROAD WORK AHEAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 7 | W20-4 | | ONE LANE ROAD AHEAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 8 | W20-1 | | ROAD WORK AHEAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 9 | W20-1 | | ROAD WORK AHEAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 10 | W20-4 | | ONE LANE ROAD AHEAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 12 | W8-7 | | LOOSE GRAVEL | 36" x 36" | 1 - 4" x 6" | 1 |
| | | SPECIAL | | YIELD TO ONCOMING TRAFFIC | 36" x 24" | | |
| 13 | G20-2 | | END ROAD WORK | 36" x 18" | 1 - 4" x 4" | 1 | |
| TH-2 | 1 | W8-8 | | ROUGH ROAD | 36" x 36" | 1 - 4" x 6" | 1 |
| | 2 | W8-7 | | LOOSE GRAVEL | 36" x 36" | 1 - 4" x 6" | 1 |
| | | SPECIAL | | YIELD TO ONCOMING TRAFFIC | 36" x 24" | | |
| 3 | W8-8 | | ROUGH ROAD | 36" x 36" | 1 - 4" x 6" | 1 | |

TRAFFIC HANDLING QUANTITIES
THQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **TRAFFIC DESIGN**
 FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
 CALCULATED/DESIGNED BY: HUE NGUYEN
 CHECKED BY: HUE NGUYEN
 RAJINI TEKALKOTE
 REVISOR: HUE NGUYEN
 REVISED BY: HUE NGUYEN
 DATE REVISED: 9-23-15
 RT: 10-13-15
 RDC: 9-23-15

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 7 | 21 |

Rhodel DeClaro 10/14/15
 REGISTERED CIVIL ENGINEER DATE

12-7-15
 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.

PAVEMENT DELINEATION ITEMS

| LOCATION No. | BRIDGE NAME | BRIDGE No. | REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE) | REMOVE THERMOPLASTIC TRAFFIC STRIPE | 4" THERMOPLASTIC TRAFFIC STRIPE | | REMOVE PAVEMENT MARKER | PAVEMENT MARKER (RETROREFLECTIVE) | | | |
|-----------------|----------------------|------------|---|---|------------------------------------|---------------|------------------------------|--------------------------------------|--------------|--------------|--------|
| | | | | | YELLOW | WHITE | | WHITE | | TYPE G | TYPE H |
| | | | | | DETAIL 25 | DETAIL 27B | | DETAIL 12 | DETAIL 12 | DETAIL 25 | |
| | | | LF | LF | LF | | EA | EA | | | |
| 1 | VOLTA ROAD UC | 39-0158L | 67 | 89 | 67 | 67 | 4 | 2 | 2 | | |
| 2 | VOLTA ROAD UC | 39-0158R | 157 | 209 | 157 | 157 | 8 | 4 | 4 | | |
| 3 | ETCHEVERRY ROAD UC | 39-0159R | 88 | 153 | 88 | 116 | 5 | 3 | 2 | | |
| 4 | BILLY WRIGHT ROAD UC | 39-0160L | 118 | 157 | 118 | 118 | 6 | 3 | 3 | | |
| 5 | BILLY WRIGHT ROAD UC | 39-0160R | 119 | 159 | 119 | 119 | 6 | 3 | 3 | | |
| 6 | CANAL ROAD UC | 39-0165L | 125 | 160 | 125 | 119 | 6 | 3 | 3 | | |
| 7 | CANAL ROAD UC | 39-0165R | 163 | 217 | 163 | 163 | 8 | 4 | 4 | | |
| 8 | DELTA MENDOTA CANAL | 39-0174L | 236 | 315 | 236 | 236 | 10 | 5 | 5 | | |
| 9 | DELTA MENDOTA CANAL | 39-0174R | 236 | 315 | 236 | 236 | 10 | 5 | 5 | | |
| 10 | WEST BANK ROAD UC | 39-0172L | 66 | 88 | 66 | 66 | 4 | 2 | 2 | | |
| 11 | WEST BANK ROAD UC | 39-0172R | 66 | 88 | 66 | 66 | 4 | 2 | 2 | | |
| 12 | QUINTO CREEK | 39-0176L | 120 | 160 | 120 | 120 | 6 | 3 | 3 | | |
| 13 | QUINTO CREEK | 39-0176R | 120 | 160 | 120 | 120 | 6 | 3 | 3 | | |
| 14 | ALLEN ROAD UC | 39-0177L | 67 | 89 | 67 | 67 | 4 | 2 | 2 | | |
| 15 | ALLEN ROAD UC | 39-0177R | 67 | 89 | 67 | 67 | 4 | 2 | 2 | | |
| SUBTOTAL | | | 1815 | 2449 | 1815 | 1837 | 91 | 46 | 45 | | |
| TOTAL | | | 1815 | 2449 | 3652 | | 91 | 91 | | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR
 ALVIN MANGINDIN
 CALCULATED/DESIGNED BY
 CHECKED BY
 RHODEL DE CLARO
 JOSE A. ALICEA II
 REVISED BY
 DATE REVISED
 RDC
 10/14/15
 RDC
 07/21/15
 RDC
 11/6/15

PAVEMENT DELINEATION QUANTITIES PDQ-1

LAST REVISION
 11-6-15
 DATE PLOTTED => 08-DEC-2015
 TIME PLOTTED => 14:37

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 9 | 21 |

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 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.

TO ACCOMPANY PLANS DATED 12-7-15

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

M

| | |
|------------|------------------------------------|
| Maint | MAINTENANCE |
| Max | MAXIMUM |
| MB | METAL BEAM |
| MBB | METAL BEAM BARRIER |
| MBGR | METAL BEAM GUARD RAILING |
| Med | MEDIAN |
| MGS | MIDWEST GUARDRAIL SYSTEM |
| MH | MANHOLE |
| Min | MINIMUM |
| Misc | MISCELLANEOUS |
| Misc I & S | MISCELLANEOUS IRON AND STEEL |
| Mkr | MARKER |
| Mod | MODIFIED, MODIFY |
| Mon | MONUMENT |
| MP | METAL PLATE |
| MPGR | METAL PLATE GUARD RAILING |
| MR | MOVEMENT RATING |
| MSE | MECHANICALLY STABILIZED EMBANKMENT |
| Mt | MOUNTAIN, MOUNT |
| MtI | MATERIAL |
| MVP | MAINTENANCE VEHICLE PULLOUT |

N

| | |
|------|----------------------------|
| N | NORTH |
| NB | NORTHBOUND |
| No. | NUMBER (MUST HAVE PERIOD) |
| Nos. | NUMBERS (MUST HAVE PERIOD) |
| NPS | NOMINAL PIPE SIZE |
| NS | NEAR SIDE |
| NSP | NEW STANDARD PLAN |
| NTS | NOT TO SCALE |

O

| | |
|------|------------------------------|
| Obir | OBLITERATE |
| OC | OVERCROSSING |
| OD | OUTSIDE DIAMETER |
| OF | OUTSIDE FACE |
| OG | ORIGINAL GROUND |
| OGAC | OPEN GRADED ASPHALT CONCRETE |
| OGFC | OPEN GRADED FRICTION COURSE |
| OH | OVERHEAD |
| OHWM | ORDINARY HIGH WATER MARK |
| O-O | OUT TO OUT |
| Opp | OPPOSITE |
| OSD | OVERSIDE DRAIN |

P

| | |
|----------|--|
| p | PAGE |
| PAP | PERFORATED ALUMINUM PIPE |
| PB | PULL BOX |
| PC | POINT OF CURVATURE, PRECAST |
| PCC | POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE |
| PCMS | PORTABLE CHANGEABLE MESSAGE SIGN |
| PCP | PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE |
| PCVC | POINT OF COMPOUND VERTICAL CURVE |
| PEC | PERMIT TO ENTER AND CONSTRUCT |
| Ped | PEDESTRIAN |
| Ped OC | PEDESTRIAN OVERCROSSING |
| Ped UC | PEDESTRIAN UNDERCROSSING |
| Perm MtI | PERMEABLE MATERIAL |

P continued

| | |
|---------|---|
| PG | PROFILE GRADE |
| PI | POINT OF INTERSECTION |
| PJP | PARTIAL JOINT PENETRATION |
| Pkwy | PARKWAY |
| PL, PL | PLATE |
| P/L | PROPERTY LINE |
| PM | POST MILE, TIME FROM NOON TO MIDNIGHT |
| PN | PAVING NOTCH |
| POC | POINT OF HORIZONTAL CURVE |
| POT | POINT OF TANGENT |
| POVC | POINT OF VERTICAL CURVE |
| PP | PIPE PILE, PLASTIC PIPE, POWER POLE |
| PPL | PREFORMED PERMEABLE LINER |
| PPP | PERFORATED PLASTIC PIPE |
| PRC | POINT OF REVERSE CURVE |
| PRF | PAVEMENT REINFORCING FABRIC |
| PRVC | POINT OF REVERSE VERTICAL CURVE |
| PS&E | PLANS, SPECIFICATIONS AND ESTIMATES |
| PS, P/S | PRESTRESSED |
| PSP | PERFORATED STEEL PIPE |
| PT | POINT OF TANGENCY |
| PVC | POLYVINYL CHLORIDE |
| Pvmt | PAVEMENT |

Q

| | |
|-----|----------|
| Qty | QUANTITY |
|-----|----------|

R

| | |
|-------|---|
| R | RADIUS |
| R & D | REMOVE AND DISPOSE |
| R & S | REMOVE AND SALVAGE |
| R/C | RATE OF CHANGE |
| RCA | REINFORCED CONCRETE ARCH |
| RCB | REINFORCED CONCRETE BOX |
| RCP | REINFORCED CONCRETE PIPE |
| RCPA | REINFORCED CONCRETE PIPE ARCH |
| Rd | ROAD |
| Reinf | REINFORCED, REINFORCEMENT, REINFORCING |
| Rel | RELOCATE |
| Repl | REPLACEMENT |
| Ret | RETAINING |
| Rev | REVISED, REVISION |
| Rdwy | ROADWAY |
| RHMA | RUBBERIZED HOT MIX ASPHALT |
| Riv | RIVER |
| RM | ROAD-MIXED |
| RP | RADIUS POINT, REFERENCE POINT |
| RR | RAILROAD |
| RSP | ROCK SLOPE PROTECTION, REVISED STANDARD PLAN |
| Rt | RIGHT |
| Rte | ROUTE |
| RW | REDWOOD, RETAINING WALL |
| R/W | RIGHT OF WAY |
| Rwy | RAILWAY |

S

| | |
|-------|----------------------------------|
| S | SOUTH, SUPPLEMENT |
| SAE | STRUCTURE APPROACH EMBANKMENT |
| Salv | SALVAGE |
| SAPP | STRUCTURAL ALUMINUM PLATE PIPE |
| SB | SOUTHBOUND |
| SC | SAND CUSHION |
| SCSP | SLOTTED CORRUGATED STEEL PIPE |
| SD | STORM DRAIN |
| Sec | SECOND, SECTION |
| Sep | SEPARATION |
| SG | SUBGRADE |
| Shld | SHOULDER |
| Sht | SHEET |
| Sim | SIMILAR |
| SL | STATION LINE |
| SM | SELECTED MATERIAL |
| Spec | SPECIAL, SPECIFICATIONS |
| SPP | SLOTTED PLASTIC PIPE |
| SS | SLOPE STAKE |
| SSBM | STRAP AND SADDLE BRACKET METHOD |
| SSD | STRUCTURAL SECTION DRAIN |
| SSPA | STRUCTURAL STEEL PLATE ARCH |
| SSPP | STRUCTURAL STEEL PLATE PIPE |
| SSPPA | STRUCTURAL STEEL PLATE PIPE ARCH |
| SSRP | STEEL SPIRAL RIB PIPE |
| St | STREET |
| Sta | STATION |
| STBB | SINGLE THRIE BEAM BARRIER |
| Std | STANDARD |
| Str | STRUCTURE |
| Surf | SURFACING |
| SW | SIDEWALK, SOUND WALL |
| Swr | SEWER |
| Sym | SYMMETRICAL |
| S4S | SURFACE 4 SIDES |

T

| | |
|-------|---------------------------------|
| T | SEMI-TANGENT |
| Tan | TANGENT |
| TBB | THRIE BEAM BARRIER |
| Tbr | TIMBER |
| TC | TOP OF CURB |
| TCB | TRAFFIC CONTROL BOX |
| TCE | TEMPORARY CONSTRUCTION EASEMENT |
| TeI | TELEPHONE |
| Temp | TEMPORARY |
| TG | TOP OF GRADE |
| Tot | TOTAL |
| TP | TELEPHONE POLE |
| TPB | TREATED PERMEABLE BASE |
| TPM | TREATED PERMEABLE MATERIAL |
| Trans | TRANSITION |

T continued

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

U

V

W

X

Y

TO ACCOMPANY PLANS DATED 12-7-15

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

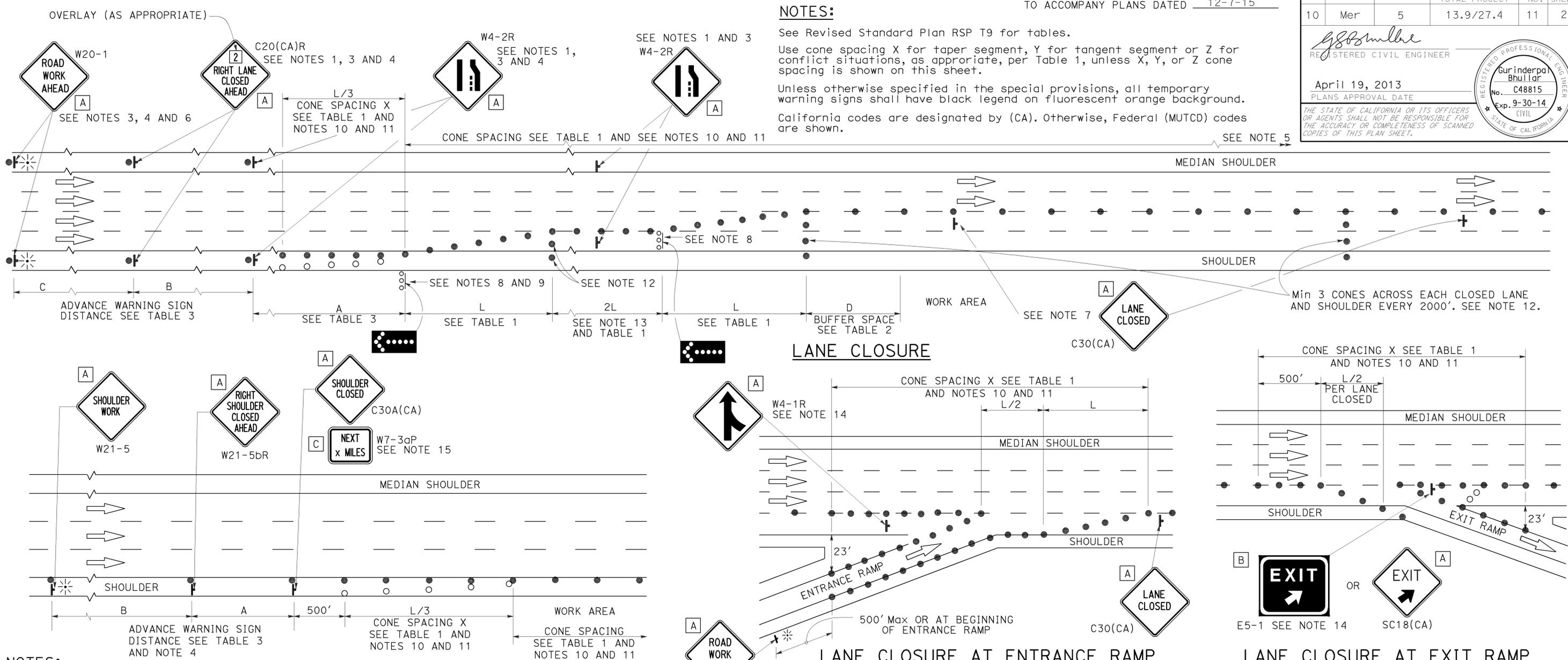
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 10 | Mer | 5 | 13.9/27.4 | 11 | 21 |

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

TO ACCOMPANY PLANS DATED 12-7-15

NOTES:

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



NOTES:

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

SHOULDER CLOSURE

6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA)L and W4-2L signs shall be used.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

LANE CLOSURE AT ENTRANCE RAMP

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

LEGEND

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

SIGN PANEL SIZE (Min)

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

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

NOTES:

See Revised Standard Plan RSP T9 for tables.

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

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

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

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 12 | 21 |

Devinder Singh
REGISTERED CIVIL ENGINEER

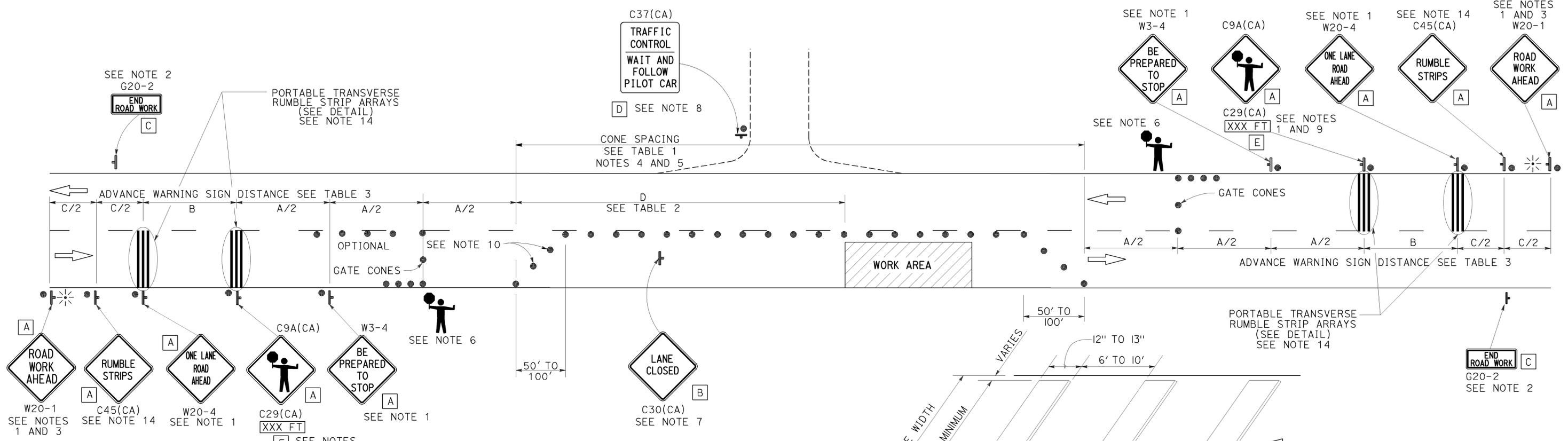
October 30, 2015
PLANS APPROVAL DATE

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

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

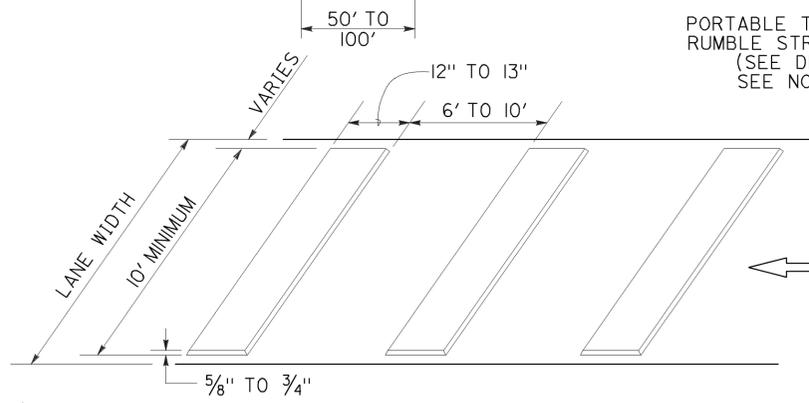
TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 12-7-15



NOTES:

- 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.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- 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.
- 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.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign.
- Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
- The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
- If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
 - Work duration occupies a location for four hours or less
 - Posted speed limit is below 45 MPH
 - Work is of emergency nature
 - Work zone is in snow or icy weather conditions



SIGN PANEL SIZE (Min)

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

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⚡ PORTABLE FLASHING BEACON
- 🚧 FLAGGER

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

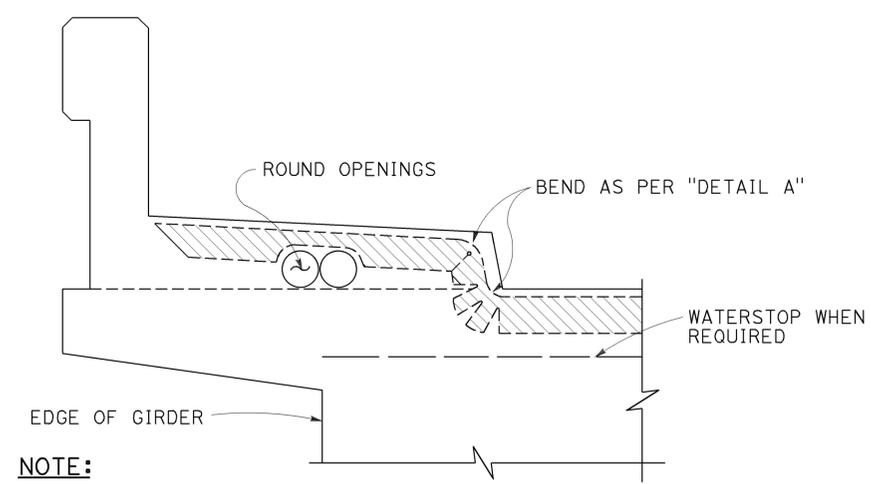
RSP T13 DATED OCTOBER 30, 2015 SUPERSEDES RSP T13 DATED OCTOBER 17, 2014, RSP T13 DATED JULY 18, 2014 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

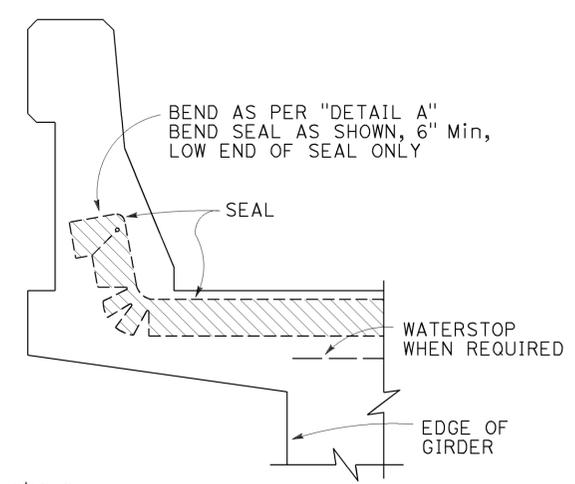
TO ACCOMPANY PLANS DATED 12-7-15

2010 REVISED STANDARD PLAN RSP B6-21

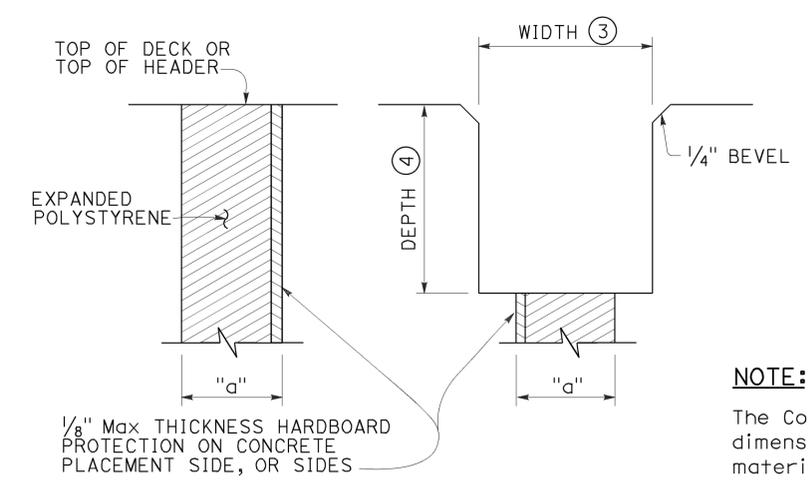


NOTE:
 Type "B" seal shown. Type "A" seals to conform to the general path of seal shown, cuts for bending not required. Bend type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK



CONCRETE BARRIER

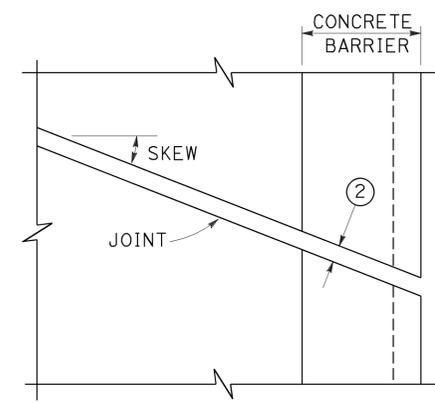


FORMING DETAIL SAWCUT DETAIL

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

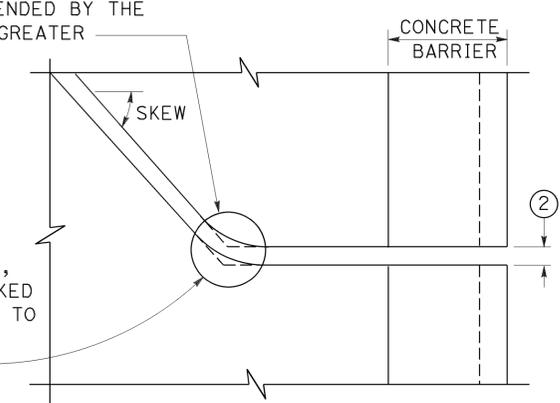
JOINT SEALS DETAILS

Min ϕ RADIUS TO BE 4 TIMES UNCOMPRESSED WIDTH OF SEAL OR AS RECOMMENDED BY THE MANUFACTURER, WHICHEVER IS GREATER



PLAN OF JOINT (SKEW $\leq 20^\circ$)

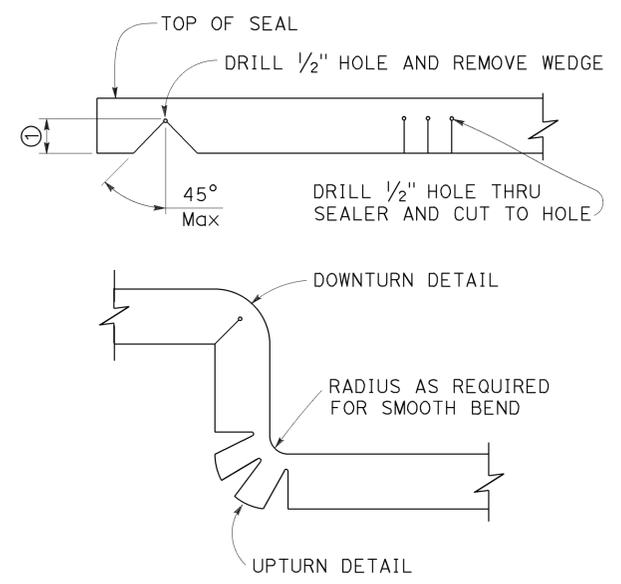
IN LIEU OF SAW CUTTING, THIS AREA MAY BE BLOCKED OUT AND RECONSTRUCTED TO MATCH SAW CUTTING ON BOTH SIDES.



PLAN OF JOINT (SKEW $> 20^\circ$)

NOTES:

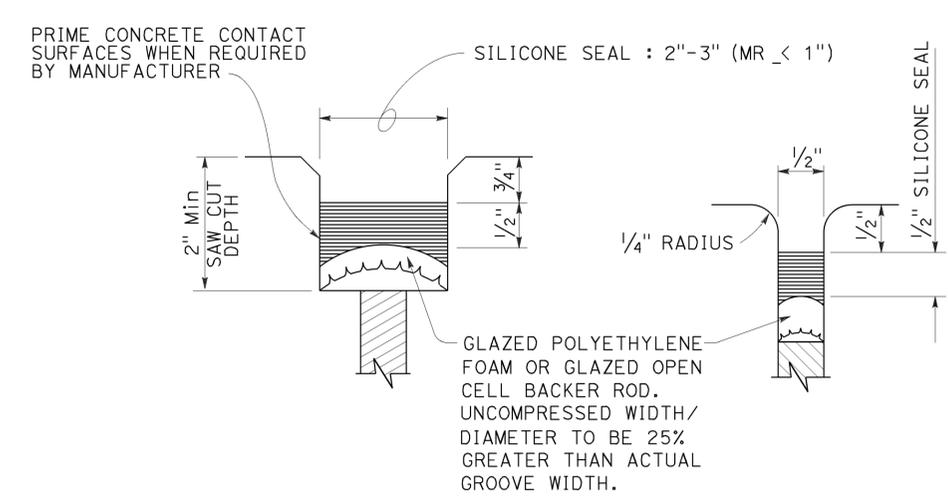
- Make smooth cuts from the bottom of seal to 1/2" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
- Opening in barrier to match width of sawn deck joint.
- Sawcut groove widths shall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



DETAIL A

DIMENSIONS "a" OF JOINT REQUIRED

| MOVEMENT RATING (MR) (5) | BRIDGE TYPE | "a" DIMENSION | | |
|--------------------------|-------------------|----------------------|-------------|--------|
| | | DECK CONCRETE PLACED | | |
| | | WINTER | FALL-SPRING | SUMMER |
| 2" | ALL EXCEPT CIP/PS | 1 1/2" | 1 1/4" | 3/4" |
| | CIP/PS | 1 1/4" | 1" | 1/2" |
| 1 1/2" | ALL EXCEPT CIP/PS | 1 1/4" | 1" | 1/2" |
| | CIP/PS | 1" | 3/4" | 1/2" |
| 1" | ALL EXCEPT CIP/PS | 1" | 3/4" | 1/2" |
| | CIP/PS | 3/4" | 1/2" | 1/2" |
| 1/2" | ALL EXCEPT CIP/PS | 3/4" | 3/4" | 1/2" |
| | CIP/PS | 1/2" | 1/2" | 1/2" |

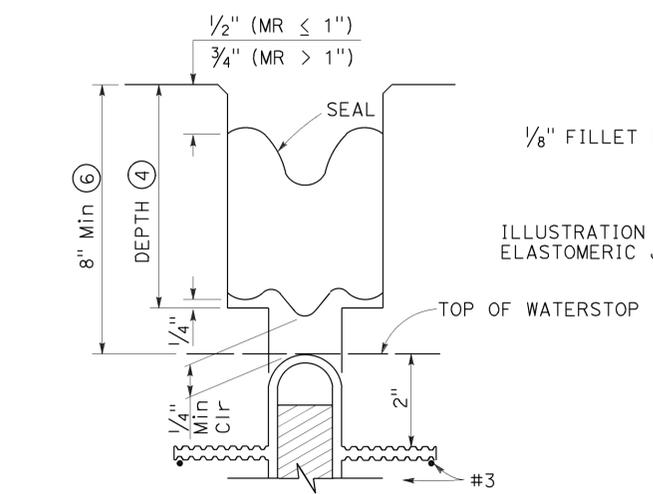


TYPE A SEAL

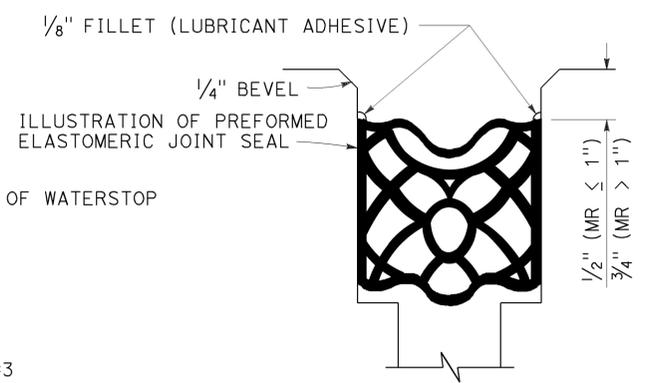
Movement rating : Silicone = 1" Max

TYPE AL SEAL

Longitudinal joints only



TYPE B JOINT SEAL IN MINIMUM WIDTH POSITION (W_2)



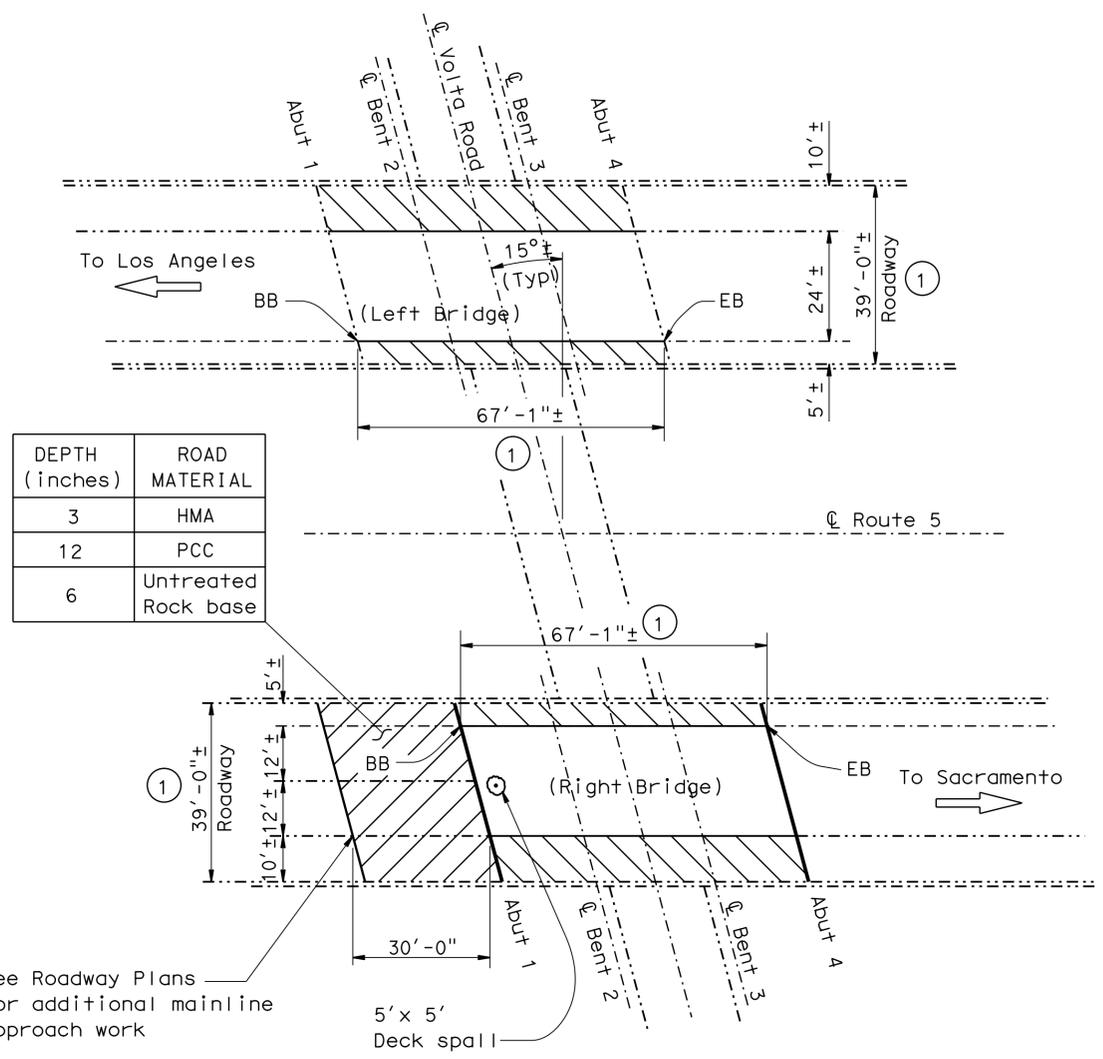
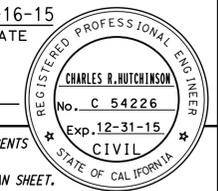
TYPE B SEAL

Movement Rating ≤ 2 "

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
JOINT SEALS
(MAXIMUM MOVEMENT RATING = 2")

NO SCALE
 RSP B6-21 DATED OCTOBER 30, 2015 SUPERSEDES
 STANDARD PLAN B6-21 DATED MAY 20, 2011 -
 PAGE 283 OF THE STANDARD PLANS BOOK DATED 2010.

| | | | | | |
|--|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 14 | 21 |
| <i>Charles R. Hutchinson</i> REGISTERED CIVIL ENGINEER | | | 10-16-15 | DATE | |
| 12-7-15 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. | | | | | |



STANDARD PLANS DATED 2010

| SHEET NO. | TITLE |
|-----------|--|
| A10A | ABBREVIATIONS (SHEET 1 OF 2) |
| RSP A10B | ABBREVIATIONS (SHEET 2 OF 2) |
| B6-21 | JOINT SEALS (MAXIMUM MOVEMENT RATING = 2") |

- Note:** (Apply to this sheet only)
- Indicates existing structure
 - ① Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.
 - /— Indicates limits of remove existing joint seal and place new joint seal.
 - ▨ Indicates limits of remove existing approach pavement and place new Structure Approach Slab Type R(30D) and paving notch extension.
 - ▨ Indicates limits of remove existing epoxy grit overlay.

INDEX TO PLANS

| SHEET NO. | TITLE |
|-----------|---------------------------|
| 1 | GENERAL PLAN NO. 1 |
| 2 | GENERAL PLAN NO. 2 |
| 3 | GENERAL PLAN NO. 3 |
| 4 | GENERAL PLAN NO. 4 |
| 5 | GENERAL PLAN NO. 5 |
| 6 | COLUMN REPAIR DETAILS |
| 7 | MISCELLANEOUS DETAILS |
| 8 | APPROACH SLAB TYPE R(30D) |

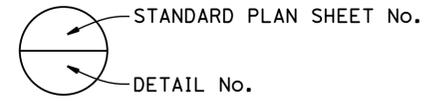
VOLTA ROAD UC
 BR. NO. 39-0158L/R, RTE 5, PM 13.87
 1"=20'

VOLTA ROAD UC BRIDGE NO. 39-0158L/R

QUANTITIES

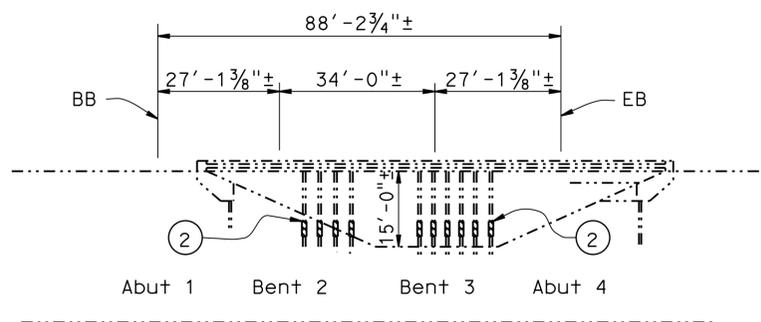
| | | |
|---|-------|------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 5,234 | SQFT |
| TREAT BRIDGE DECK | 5,234 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 71 | GAL |
| GRIND EPOXY GRIT OVERLAY | 2,013 | SQFT |
| AGGREGATE BASE (APPROACH SLAB) | 5 | CY |
| STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R) | 54 | CY |
| PAVING NOTCH EXTENSION | 30 | CF |
| CLEAN EXPANSION JOINT | 41 | LF |
| JOINT SEAL (MR 1/2") | 82 | LF |

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

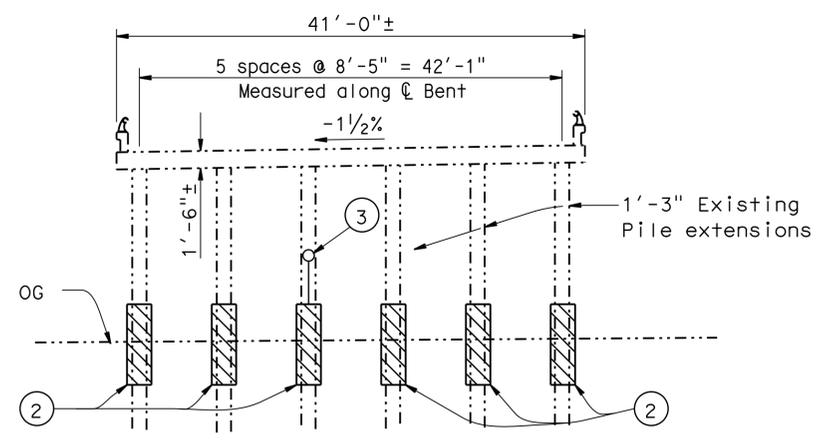


| | | | | | | | | | | | | | |
|--|------------|-----------------------|------------------------|----------------|-------------------|----------------------------|---|---|--|---|---|---------|--------------|
| DESIGN ENGINEER 10-16-15 | DESIGN | BY Charles Hutchinson | CHECKED Franz Espinoza | LAYOUT | BY Trung Lam | CHECKED Charles Hutchinson | STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN | BRIDGE NO. | ROUTE 5 BRIDGES GENERAL PLAN NO. 1 | | | |
| | DETAILS | BY Trung Lam | CHECKED Franz Espinoza | SPECIFICATIONS | BY Tanya Kershell | CHECKED Tanya Kershell | | | VARIOUS | | | | |
| | QUANTITIES | BY Charles Hutchinson | CHECKED Franz Espinoza | | | | | POST MILE | | | | | |
| STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07) | | | | | | | ORIGINAL SCALE IN INCHES FOR REDUCED PLANS | 0 1 2 3 | UNIT: 3488 PROJECT NUMBER & PHASE: 1015000064 1 | CONTRACT NUMBER: 10-1E0904 | DISREGARD PRINTS BEARING EARLIER REVISION DATES | | |
| | | | | | | | | REVISION DATES | 10-16-15 | 3-30-15 | 4-09-15 | 9-17-15 | SHEET 1 OF 8 |

USERNAME => s120300 DATE PLOTTED => 10-DEC-2015 TIME PLOTTED => 09:16



ELEVATION

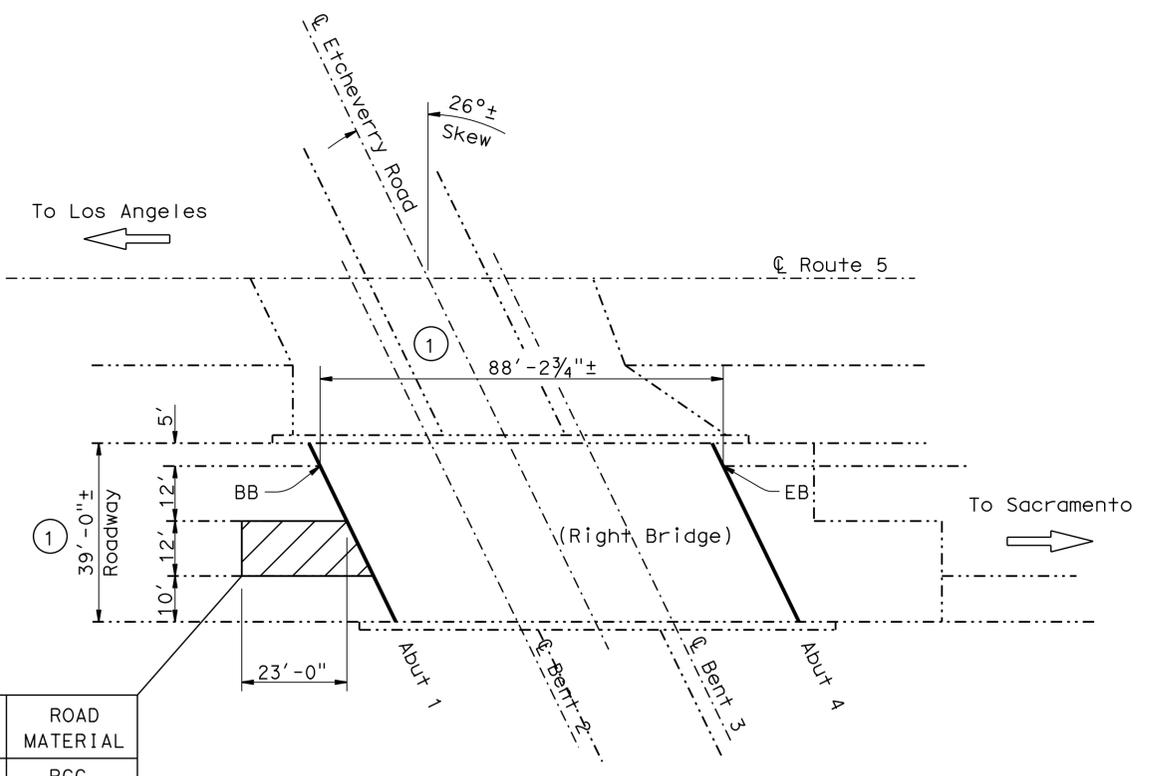


TYPICAL SECTION AT BENTS

- Note:** (Apply to this sheet only)
- Indicates existing structure
 - ① Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.
 - Indicates limits of remove existing joint seal and place new joint seal. See "MISCELLANEOUS DETAILS" sheet.
 - ▨ Indicates limits of remove existing approach pavement and place new Structure Approach Slab Type R(30D) and paving notch extension.
 - ② ▨ Indicates limits of repair columns (total 12). For details see "COLUMN REPAIR DETAILS" sheet.
 - ③ Indicates location of galvanic anode monitors (one at each bent, tot 2 monitors). For details see "COLUMN REPAIR DETAILS" sheet.

| TEMPORARY SUPPORT TABLE | | | | |
|-------------------------|-----------------|-----------------|---------------|------------------|
| BRIDGE NUMBER | LOCATION | DL + LL + I (K) | DEAD LOAD (K) | LATERAL LOAD (K) |
| 39-0159R | Span 1 @ Bent 2 | 399 | 185 | 20 |
| | Span 2 @ Bent 2 | 399 | 185 | 20 |

Notes:
 Place temporary supports at the bent being repaired. The maximum allowable transverse displacement of the structure measured at the soffit relative to the base of the temporary supports is 1". The differential vertical lift between jacks must not exceed 1/16". The temporary support must be jacked to provide a snug fit with the bridge support.
 All footing for temporary supports must not exceed a soil bearing pressure of 3,000 psf on roadway, sidewalk, curb, or gutter. All other locations not to exceed 3,500 psf.



PLAN
ETCHEVERRY ROAD UC
 BR. NO. 39-0159R, RTE 5, PM 15.12
 1"=20'

| DEPTH (inches) | ROAD MATERIAL |
|----------------|---------------------|
| 12 | PCC |
| 6 | Untreated Rock base |

ETCHEVERRY ROAD UC BRIDGE NO. 39-0159R

QUANTITIES

| | | |
|---|-------|----------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 3,441 | SQFT |
| TREAT BRIDGE DECK | 3,441 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 46 | GAL |
| BRIDGE REMOVAL (PORTION) | | LUMP SUM |
| STRUCTURE EXCAVATION (BRIDGE) (PB) | 54 | CY |
| STRUCTURE BACKFILL (BRIDGE) | 52 | CY |
| TEMPORARY SUPPORT | | LUMP SUM |
| STRUCTURAL CONCRETE, BRIDGE | 5 | CY |
| AGGREGATE BASE (APPROACH SLAB) | 1 | CY |
| STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R) | 14 | CY |
| PAVING NOTCH EXTENSION | 11 | CF |
| CLEAN EXPANSION JOINT | 88 | LF |
| JOINT SEAL (MR 1/2") | 88 | LF |
| GALVANIC ANODE | 144 | EA |
| GALVANIC ANODE MONITORING KIT | 2 | EA |

GENERAL NOTES
LOAD FACTOR DESIGN

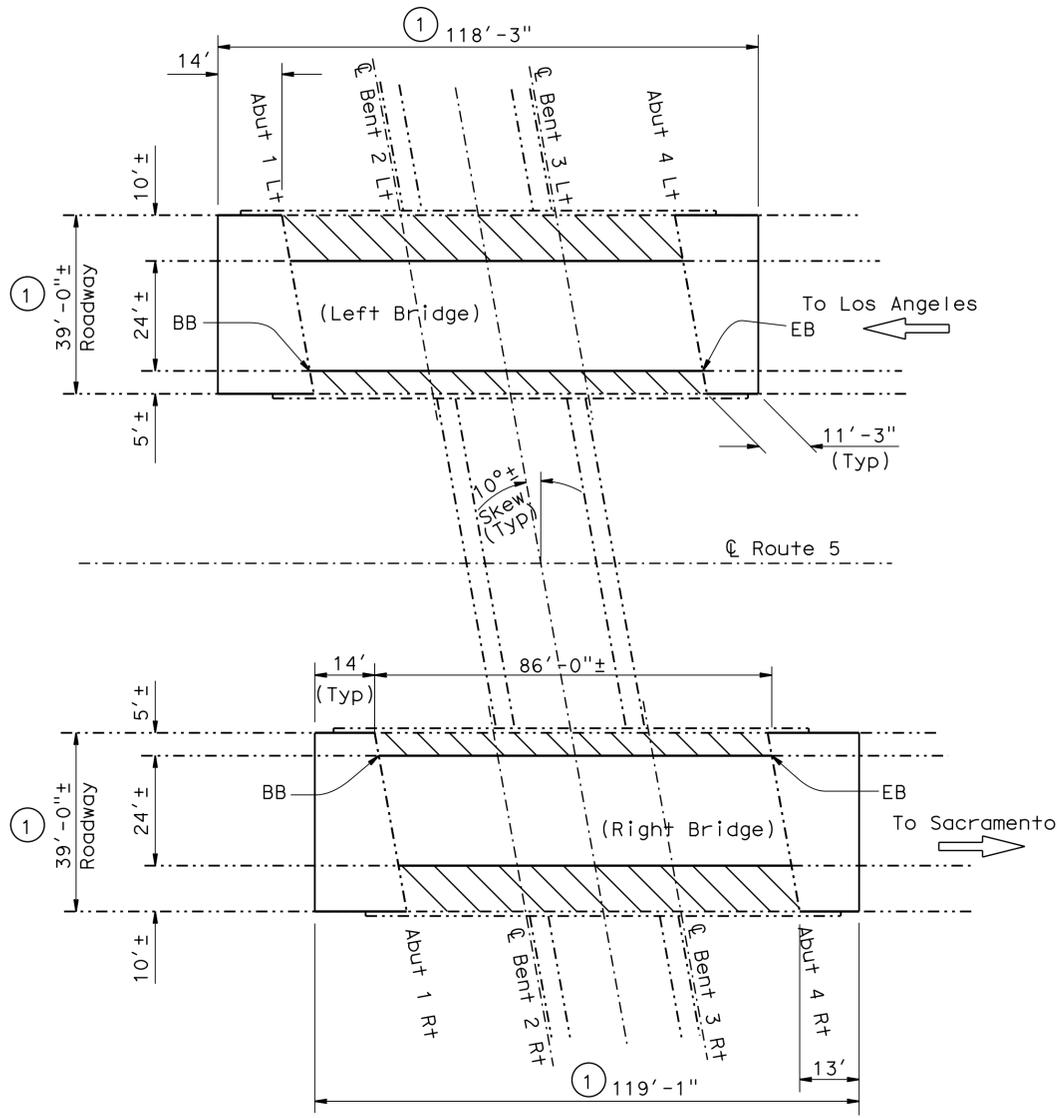
DESIGN:
 Bridge Design Specifications
 (1996 AASHTO w/Revisions by Caltrans)

DEAD LOAD:
 Includes 35 psf for future wearing surface.

LIVE LOADING:
 HL93 and permit design load.

REINFORCED CONCRETE:
 fy = 60 ksi
 f'c = 3.6 ksi
 n = 8

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



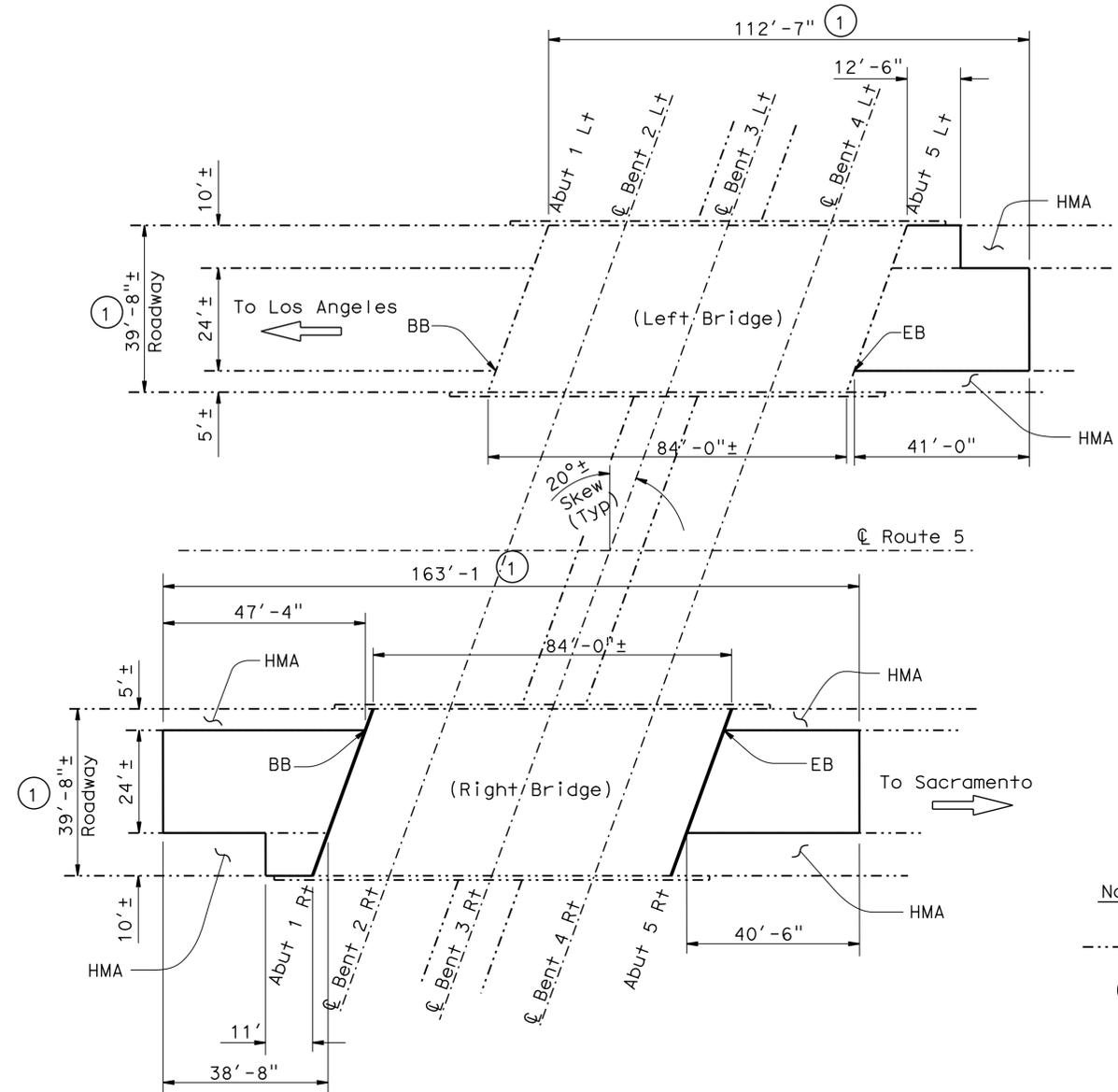
BILLY WRIGHT ROAD UC
 BR. NO. 39-0160 R/L, RTE 5, PM 16.72
 1"=20'

BILLY WRIGHT ROAD UC BRIDGE NO. 39-0160L/R

QUANTITIES

| | | |
|--|-------|------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 9,257 | SQFT |
| TREAT BRIDGE DECK | 9,257 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 125 | GAL |
| GRIND EPOXY GRIT OVERLAY | 2,580 | SQFT |

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



CANAL ROAD UC
 BR. NO. 39-0165 R/L, RTE 5, PM 19.65
 1"=20'

CANAL ROAD UC BRIDGE NO. 39-0165L/R

QUANTITIES

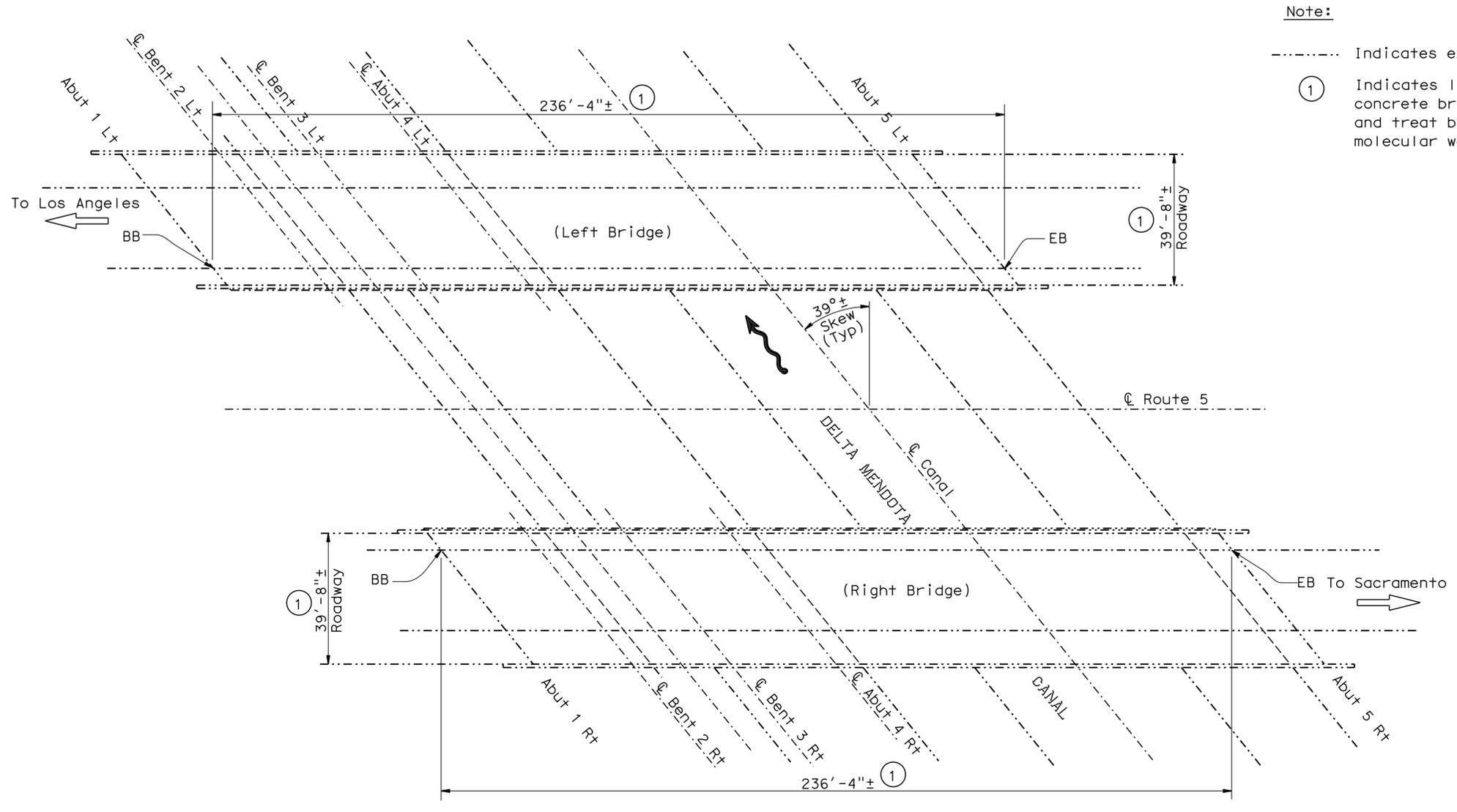
| | | |
|--|-------|------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 9,626 | SQFT |
| TREAT BRIDGE DECK | 9,626 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 133 | GAL |
| CLEAN EXPANSION JOINT | 84 | LF |
| JOINT SEAL (MR 1/2") | 84 | LF |

- Note:
- Indicates existing structure
 - ① Indicates limits of prepare concrete bridge deck surface and approach slabs and treat bridge deck with high molecular weight methacrylate.
 - Indicates limits of remove existing joint seal and place new joint seal. See "MISCELLANEOUS DETAILS" sheet.
 - ▨ Indicates limits of remove existing epoxy grit overlay.

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 17 | 21 |

10-16-15
 REGISTERED CIVIL ENGINEER DATE
 12-7-15
 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
 CHARLES R. HUTCHINSON
 No. C 54226
 Exp. 12-31-15
 CIVIL
 STATE OF CALIFORNIA



DELTA MENDOTA CANAL
 BR. NO. 39-0174L/R, RTE 5, PM 24.86
 1"=20'

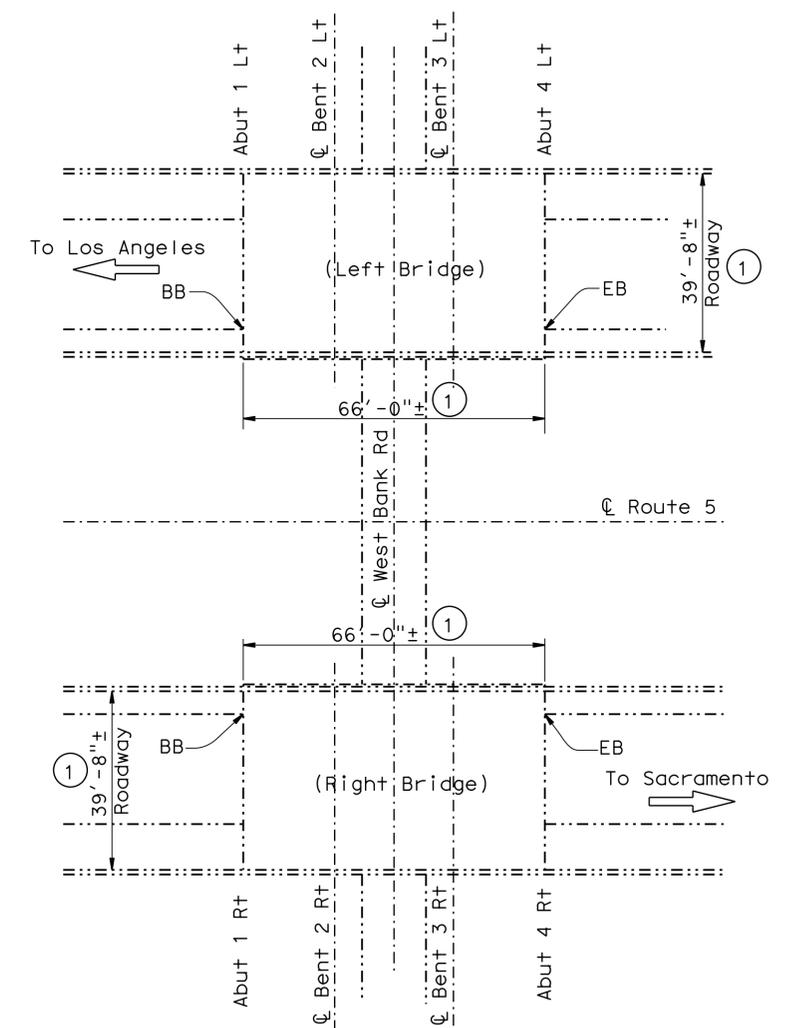
DELTA MENDOTA CANAL BRIDGE NO. 39-0174L/R

QUANTITIES

| | | |
|--|--------|------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 18,750 | SQFT |
| TREAT BRIDGE DECK | 18,750 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 253 | GAL |

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

Note:
 ----- Indicates existing structure
 (1) Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.



WEST BANK ROAD UC
 BR. NO. 39-0172L/R, RTE 5, PM 24.93
 1"=20'

WEST BANK ROAD UC BRIDGE NO. 39-0172L/R

QUANTITIES

| | | |
|--|-------|------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 5,236 | SQFT |
| TREAT BRIDGE DECK | 5,236 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 71 | GAL |

Michael J. Lee
 DESIGN ENGINEER
 10-16-15

| | | |
|------------|-----------------------|------------------------|
| DESIGN | BY Charles Hutchinson | CHECKED Franz Espinoza |
| DETAILS | BY Trung Lam | CHECKED Franz Espinoza |
| QUANTITIES | BY Charles Hutchinson | CHECKED Franz Espinoza |

| | | |
|----------------|-------------------|----------------------------|
| LAYOUT | BY Trung Lam | CHECKED Charles Hutchinson |
| SPECIFICATIONS | BY Tanya Kershell | CHECKED Tanya Kershell |

PLANS AND SPECIFICATIONS COMPARED
 Tanya Kershell

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

| | |
|------------|---------|
| BRIDGE NO. | VARIOUS |
| POST MILE | VARIES |

ROUTE 5 BRIDGES
 GENERAL PLAN NO. 4

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3488
 PROJECT NUMBER & PHASE: 1015000064 1
 CONTRACT NUMBER: 10-1E0904

| | | | |
|---|--|-------|----|
| DISREGARD PRINTS BEARING EARLIER REVISION DATES | REVISION DATES | SHEET | OF |
| | 3-13-15 3-18-15 3-30-15 9-17-15 10-16-15 | 4 | 8 |

FILE => 10-1e0901_04_gp4.dgn

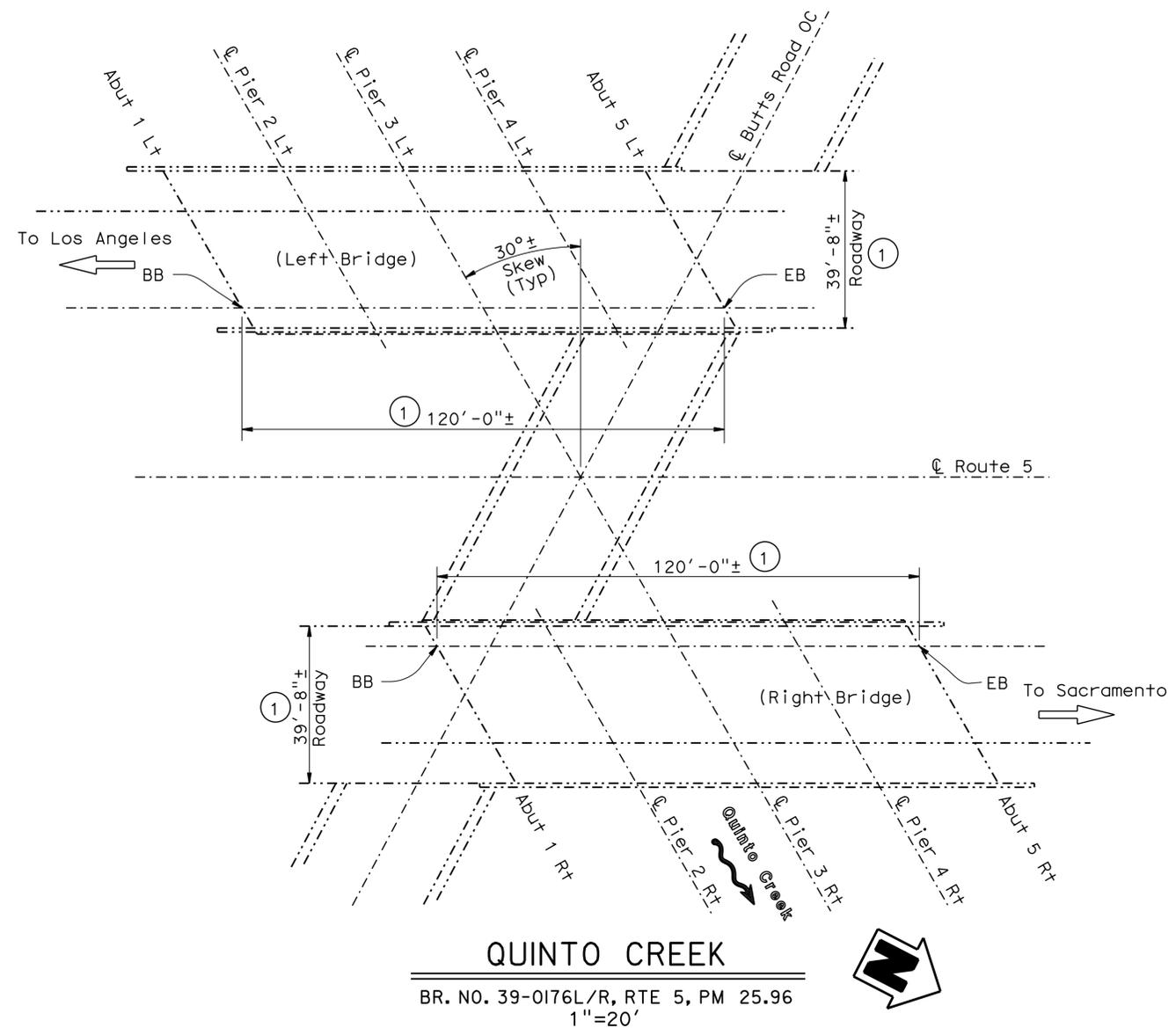
USERNAME => s120300 DATE PLOTTED => 10-DEC-2015 TIME PLOTTED => 09:16

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 10 | Mer | 5 | 13.9/27.4 | 18 | 21 |

Charles Hutchinson 10-16-15
REGISTERED CIVIL ENGINEER DATE

12-7-15
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.

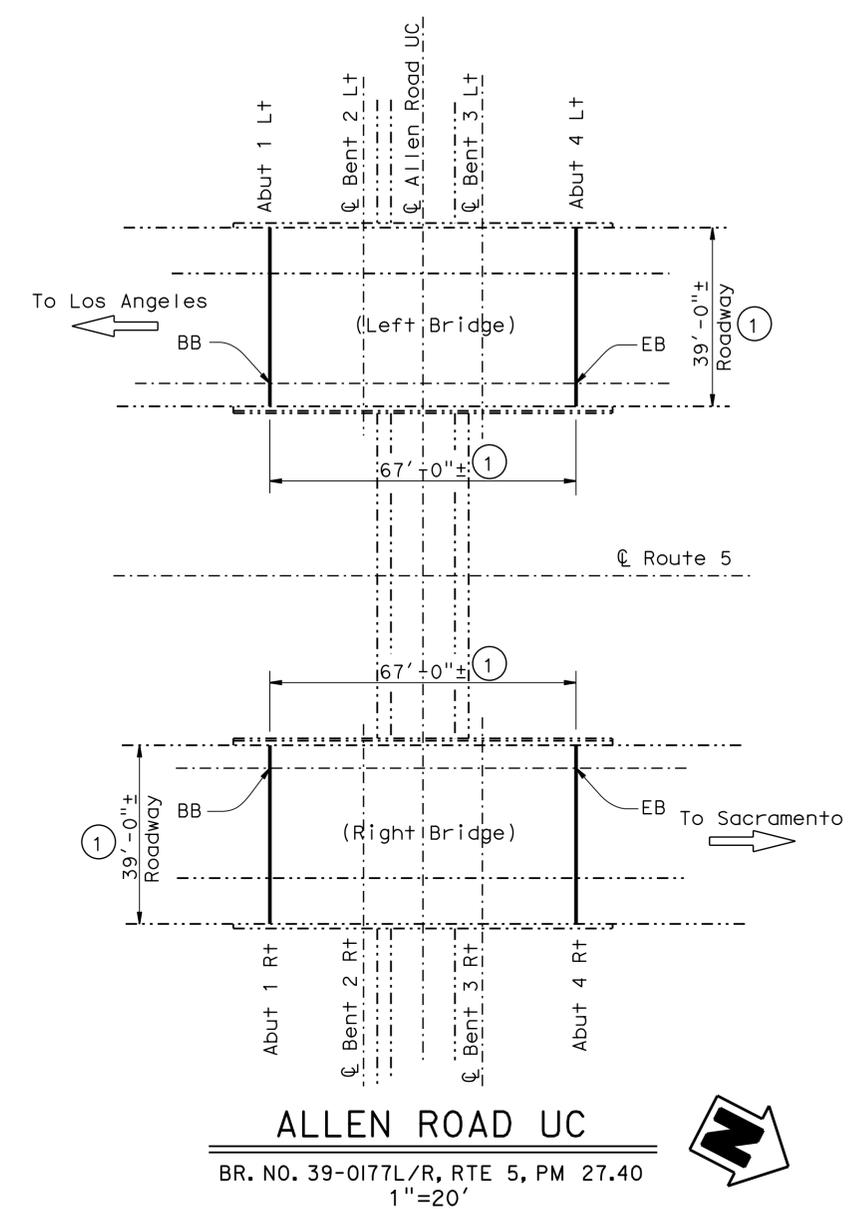


QUINTO CREEK
BR. NO. 39-0176L/R, RTE 5, PM 25.96
1"=20'

QUINTO CREEK BRIDGE NO. 39-0176L/R

QUANTITIES

| | | |
|--|-------|------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 9,521 | SQFT |
| TREAT BRIDGE DECK | 9,521 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 129 | GAL |



ALLEN ROAD UC
BR. NO. 39-0177L/R, RTE 5, PM 27.40
1"=20'

ALLEN ROAD BRIDGE NO. 39-0177L/R

QUANTITIES

| | | |
|--|-------|------|
| PREPARE CONCRETE BRIDGE DECK SURFACE | 5,226 | SQFT |
| TREAT BRIDGE DECK | 5,226 | SQFT |
| FURNISH BRIDGE DECK TREATMENT MATERIAL | 71 | GAL |
| CLEAN EXPANSION JOINT | 160 | LF |
| JOINT SEAL (MR 1/2") | 160 | LF |

- Note:
- Indicates existing structure
 - ① Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.
 - Indicates limits of remove existing joint seal and place new joint seal. See "MISCELLANEOUS DETAILS" sheet.

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

| | | | | | | | | | | | | | |
|--|------------|-----------------------|------------------------|----------------|-------------------|----------------------------|--|---|--|--|---|----------------|--------------|
| 10-16-15 DESIGN ENGINEER | DESIGN | BY Charles Hutchinson | CHECKED Franz Espinoza | LAYOUT | BY Trung Lam | CHECKED Charles Hutchinson | STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN | BRIDGE NO. | ROUTE 5 BRIDGES GENERAL PLAN NO. 5 | | | |
| | DETAILS | BY Trung Lam | CHECKED Franz Espinoza | SPECIFICATIONS | BY Tanya Kershell | CHECKED Tanya Kershell | | | VARIOUS | | | | |
| | QUANTITIES | BY Charles Hutchinson | CHECKED Franz Espinoza | | | | | | VARIES | | | | |
| STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07) | | | | | | | ORIGINAL SCALE IN INCHES FOR REDUCED PLANS | 0 1 2 3 | UNIT: 3488 PROJECT NUMBER & PHASE: 1015000064 1 | CONTRACT NUMBER: 10-1E0904 | DISREGARD PRINTS BEARING EARLIER REVISION DATES | REVISION DATES | SHEET 5 OF 8 |

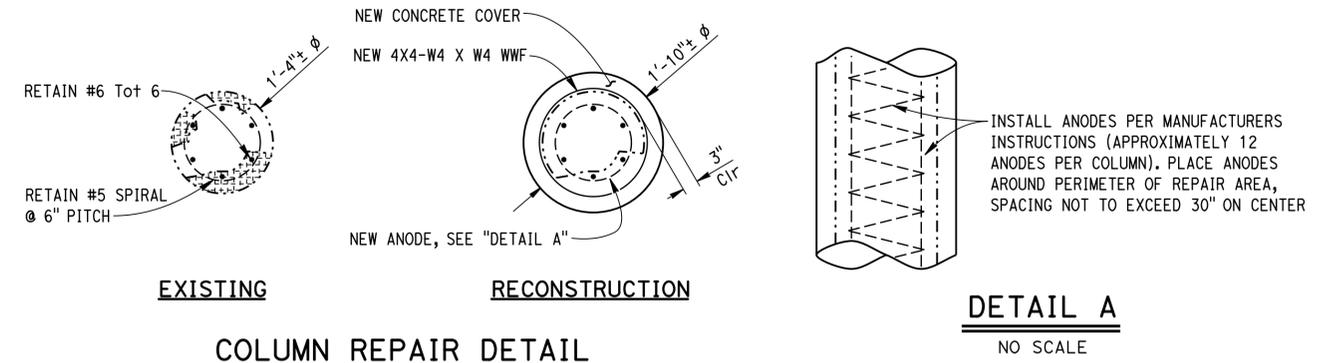
FILE => 10-1e0901_05_gp5.dgn

USERNAME => s120300 DATE PLOTTED => 10-DEC-2015 TIME PLOTTED => 09:16

| | | | | | |
|--|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 19 | 21 |
| Charles R. Hutchinson REGISTERED CIVIL ENGINEER | | | 10-16-15 DATE | | |
| 12-7-15 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:** (APPLY TO THIS SHEET ONLY)
- Indicates limits of structure excavation (PB).
 - Indicates limits of structure backfill.
 - Indicates limits of remove all unsound concrete (1" past rebar) and deleterious material, retain and clean all exposed reinforcing steel.
 - Indicates limits of place new epoxy coated 4x4-W4 X W4 welded wire fabric (WWF) and 3" minimum concrete cover.

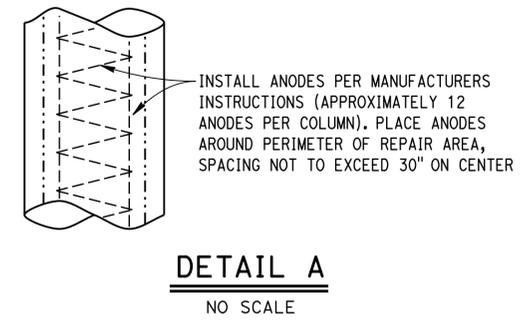
- ① Indicates columns to be repaired (total 12).
- ② Indicates location of galvanic anode monitors (one at each bent, tot 2 monitors).



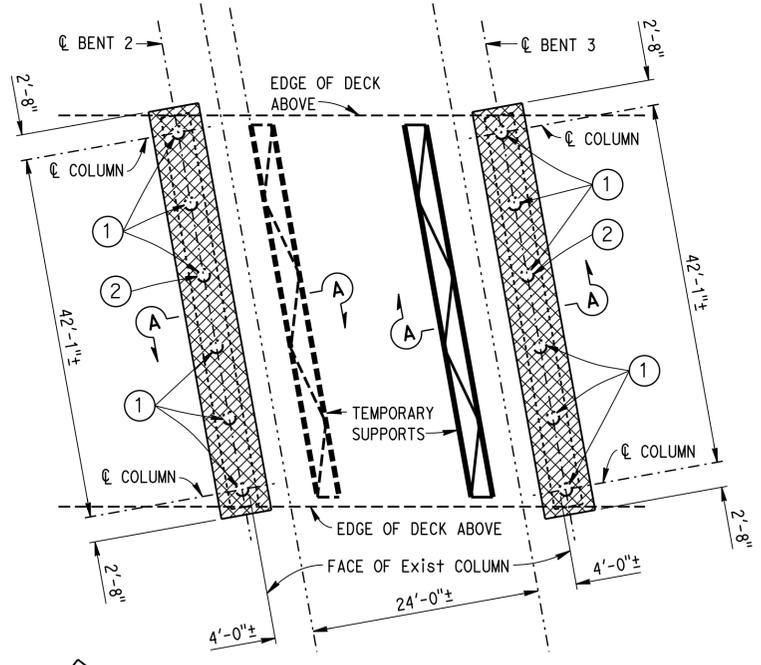
EXISTING **RECONSTRUCTION**

COLUMN REPAIR DETAIL

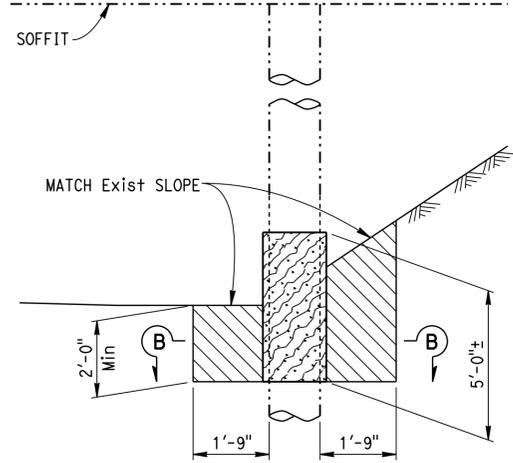
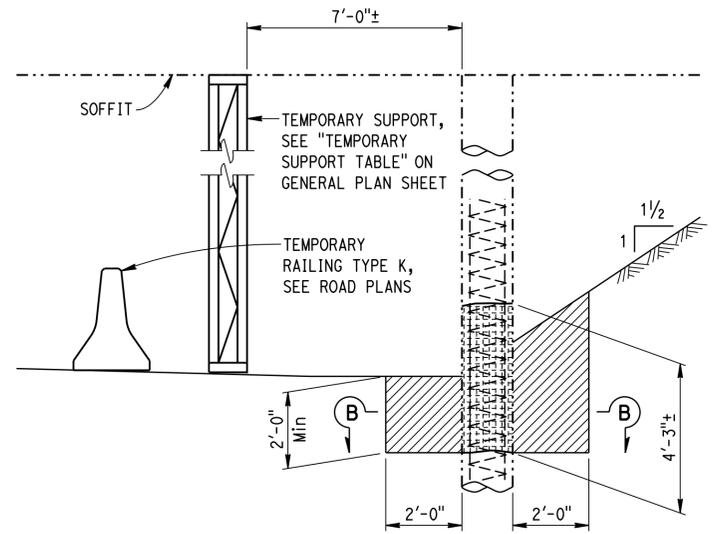
LIMITS OF DAMAGE AND REPAIR ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LIMITS OF DAMAGE AND REPAIR SHALL BE DETERMINED BY THE ENGINEER.
NO SCALE



DETAIL A
NO SCALE

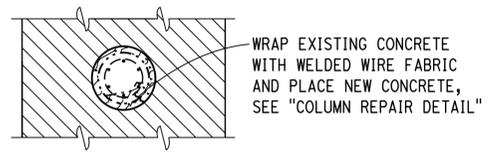
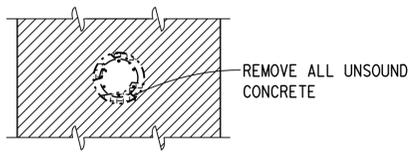


TYPICAL BENT PLAN
1/8" = 1'



EXISTING **RECONSTRUCTION**

SECTION A-A
NO SCALE



EXISTING **RECONSTRUCTION**

SECTION B-B
1/2" = 1'

GENERAL NOTES
LOAD FACTOR DESIGN

- DESIGN:** BRIDGE DESIGN SPECIFICATIONS (1983 AASHTO with Interims and Revisions by Caltrans)
- LIVE LOADING:** HS20-44 and Alternative.
- REINFORCED CONCRETE:**
 fy = 60,000 psi
 f'c = 3.6 psi
 n = 9
- Transverse Deck Slab (Working Stress Design)
 fs = 20,000 psi
 fc = 1,200 psi
 n = 8

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

| | | | | |
|--|--|---|---|--|
| DESIGN BY Charles Hutchinson CHECKED Franz Espinoza DETAILS BY Trung Lam CHECKED Franz Espinoza QUANTITIES BY Charles Hutchinson CHECKED Franz Espinoza | STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN | BRIDGE NO. | ROUTE 5 BRIDGES COLUMN REPAIR DETAILS |
| | | | VARIOUS | |
| | | | POST MILE | |
| UNIT: 3488 PROJECT NUMBER & PHASE: 1015000064 1 CONTRACT NUMBER: 10-1E0904 | | | REVISION DATES 10-16-15 11-23-15 4-09-15 9-17-15 | SHEET OF 6 8 |

USERNAME => s120300 DATE PLOTTED => 10-DEC-2015 TIME PLOTTED => 09:16

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 20 | 21 |

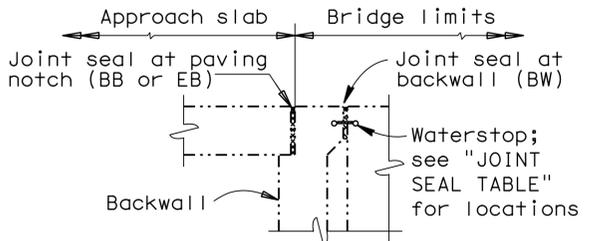
Charles R. Hutchinson 10-16-15
 REGISTERED CIVIL ENGINEER DATE

12-7-15
 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
 CHARLES R. HUTCHINSON
 No. C 54226
 Exp. 12-31-15
 CIVIL
 STATE OF CALIFORNIA

| JOINT SEAL TABLE | | | | | | | |
|--------------------|---------------|----------|----|-----------------------|---------------------------|--------------------|--|
| BRIDGE NAME | BRIDGE NUMBER | LOCATION | | MINIMUM "MR" (inches) | APPROXIMATE LENGTH (feet) | EXISTING WATERSTOP | APPROX DEPTH TO CLEAN EXPANSION JOINT (inches) |
| VOLTA ROAD UC | 39-0158R | Abut 1 | BB | 1/2 | 41 | No | 12 |
| | | Abut 4 | EB | 1/2 | 41 | No | 12 |
| ETCHEVERRY ROAD UC | 39-0159R | Abut 1 | BB | 1/2 | 44 | No | 12 |
| | | Abut 4 | EB | 1/2 | 44 | No | 12 |
| CANAL ROAD UC | 39-0165R | Abut 1 | BB | 1/2 | 42 | No | 12 |
| | | Abut 4 | EB | 1/2 | 42 | No | 12 |
| ALLEN ROAD UC | 39-0177L | Abut 1 | BB | 1/2 | 40 | No | 12 |
| | | Abut 4 | EB | 1/2 | 40 | No | 12 |
| | 39-0177R | Abut 1 | BB | 1/2 | 40 | No | 12 |
| | | Abut 4 | EB | 1/2 | 40 | No | 12 |



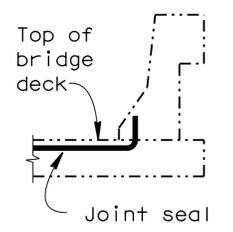
ABUTMENT WITH BACKWALL

JOINT SEAL LOCATION

NO SCALE

LEGEND:

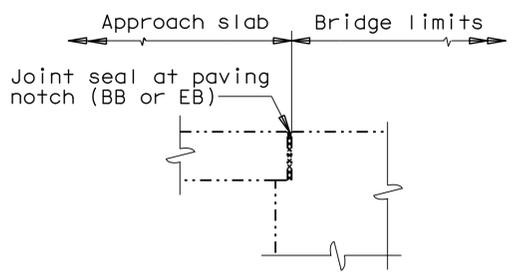
- BB = Paving notch at beginning of bridge
- EB = Paving notch at end of bridge
- ⊕ = Bent joint
- * = Joint Seal Assembly
- ** = Use Type "B" Seal



BARRIER RAIL

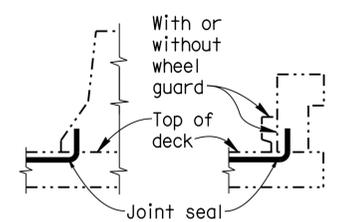
JOINT SEAL AT LOW SIDE OF DECK

Notes: Details shown for illustration purposes only. For use only where deck joint matches the barrier rail joint.



DIAPHRAGM ABUTMENT

JOINT SEAL LOCATION



BARRIER RAIL

JOINT SEAL AT LOW SIDE OF DECK

Details shown for illustration purposes only. For use only where deck joint matches the barrier rail joint. NO SCALE

The following note applies to JOINT SEAL TYPE A:

Install Type A joint seal 3" up into curb or rail on the low side of the deck where joint matches curb or rail joint. For details not shown see (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 calculated by the Engineer.
- 3) W1 shall be the smaller of the values determined as follows:
 - A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
 - B) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.
- 4) Bend Type B joint seal 6" up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.
- 5) For details not shown see (B6-21)

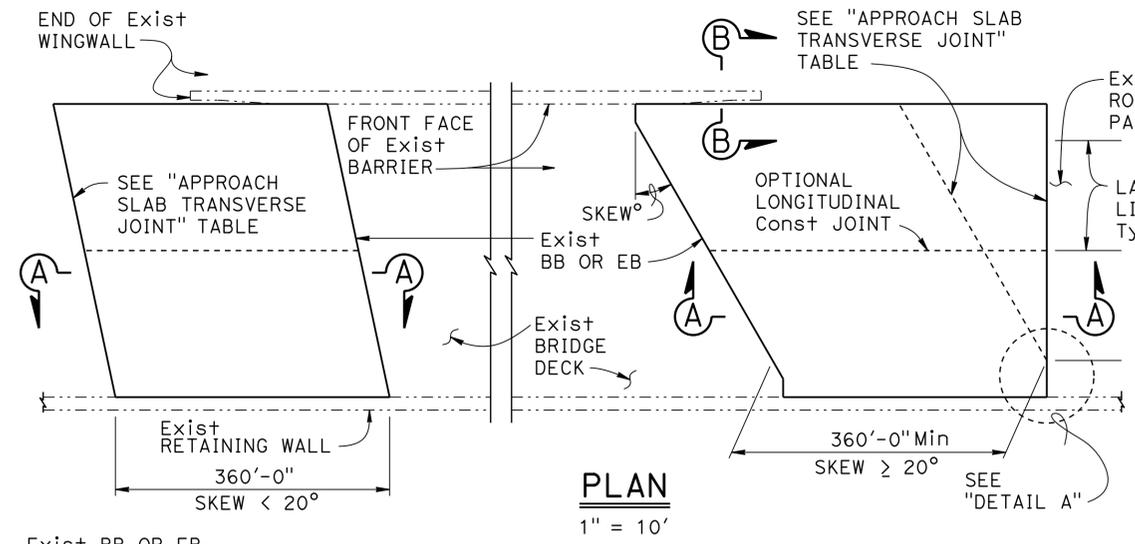
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

| | | | | | | | | | |
|--|------------|-----------------------|------------------------|---|--|---|----------------|-----------------|--------------------|
| STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07) | DESIGN | BY Charles Hutchinson | CHECKED Franz Espinoza | STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN | BRIDGE NO. | VARIOUS | ROUTE 5 BRIDGES | |
| | DETAILS | BY Trung Lam | CHECKED Franz Espinoza | | | POST MILE | VARIES | | JOINT SEAL DETAILS |
| | QUANTITIES | BY Charles Hutchinson | CHECKED Franz Espinoza | | | VARIES | VARIES | | |
| ORIGINAL SCALE IN INCHES FOR REDUCED PLANS | 0 | 1 | 2 | 3 | UNIT: 3488 PROJECT NUMBER & PHASE: 1015000064 1 CONTRACT NUMBER: 10-1E0904 | DISREGARD PRINTS BEARING EARLIER REVISION DATES | REVISION DATES | SHEET 7 OF 8 | |

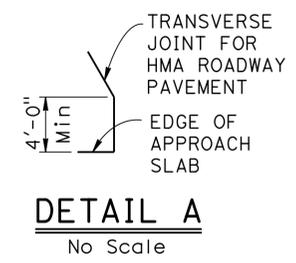
FILE => 10-1e0901_07_misc_dets.dgn

USERNAME => s120300 DATE PLOTTED => 10-DEC-2015 TIME PLOTTED => 09:16

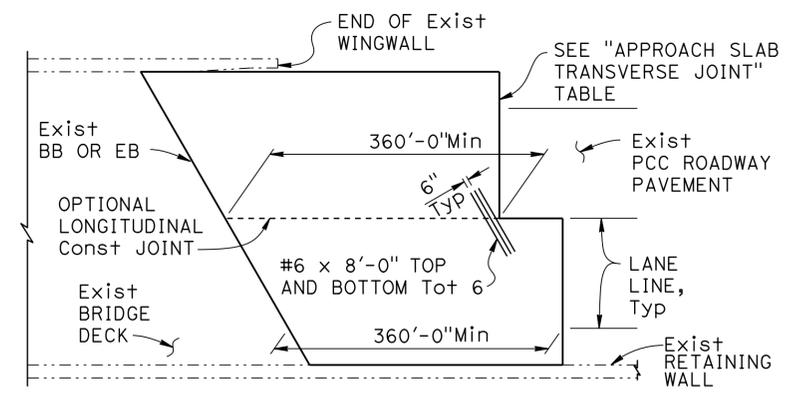
| | | | | | |
|---|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 10 | Mer | 5 | 13.9/27.4 | 21 | 21 |
| | | | | | |
| REGISTERED CIVIL ENGINEER DATE 10-16-15 | | | | | |
| PLANS APPROVAL DATE 12-7-15 | | | | | |
| <small>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.</small> | | | | | |



PLAN
1" = 10'

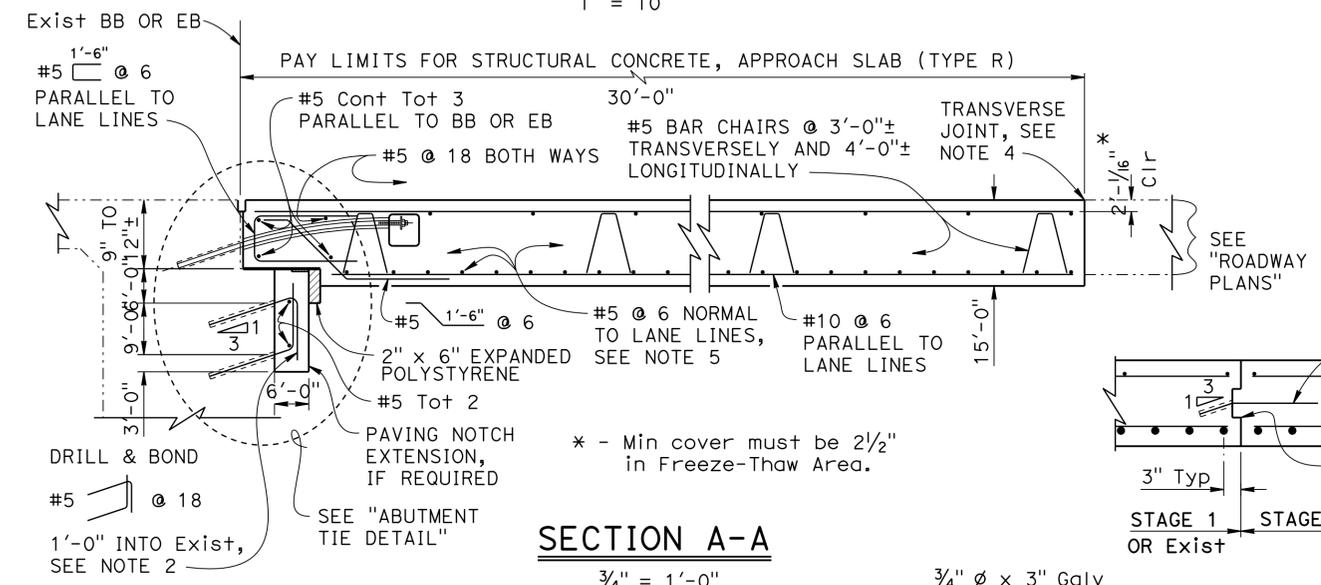


DETAIL A
No Scale

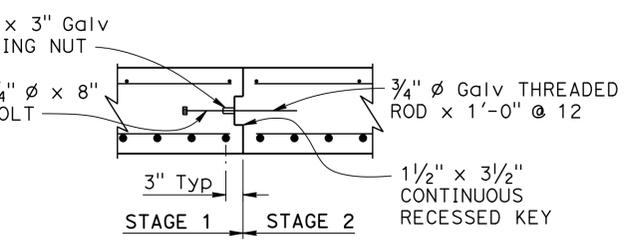
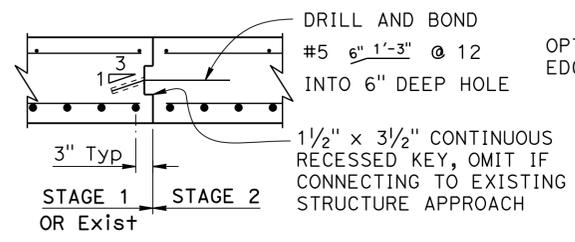


END STAGGER DETAIL
1" = 10'

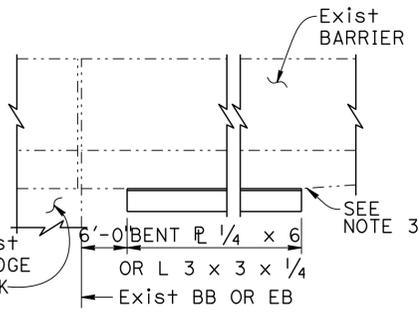
| APPROACH SLAB TRANSVERSE JOINT | | |
|--------------------------------|--|---|
| APPROACH SKEW | WITH HMA ROADWAY PAVEMENT | WITH PCC ROADWAY PAVEMENT |
| < 20° | PARALLEL TO BB OR EB | PARALLEL TO BB OR EB |
| 20° - 45° | PARALLEL TO BB OR EB USE "DETAIL A" | STAGGER AT LANE LINES 24' TO 36' APART, SEE "END STAGGER DETAIL" |
| > 45° | PARALLEL TO BB OR EB USE "DETAIL A" | STAGGER AT EACH LANE LINE, SEE "END STAGGER DETAIL" |



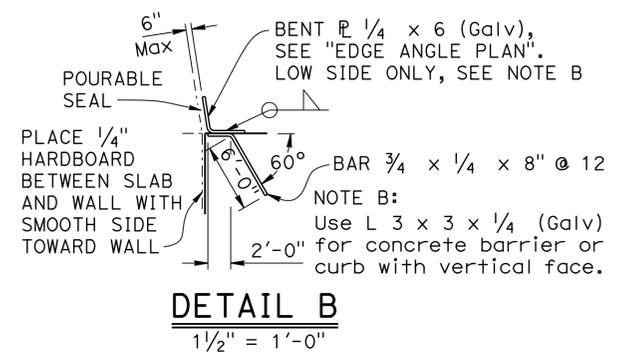
SECTION A-A
3/4" = 1'-0"



EDGE ANGLE PLAN
1" = 1'-0"



SECTION B-B
3/4" = 1'-0"

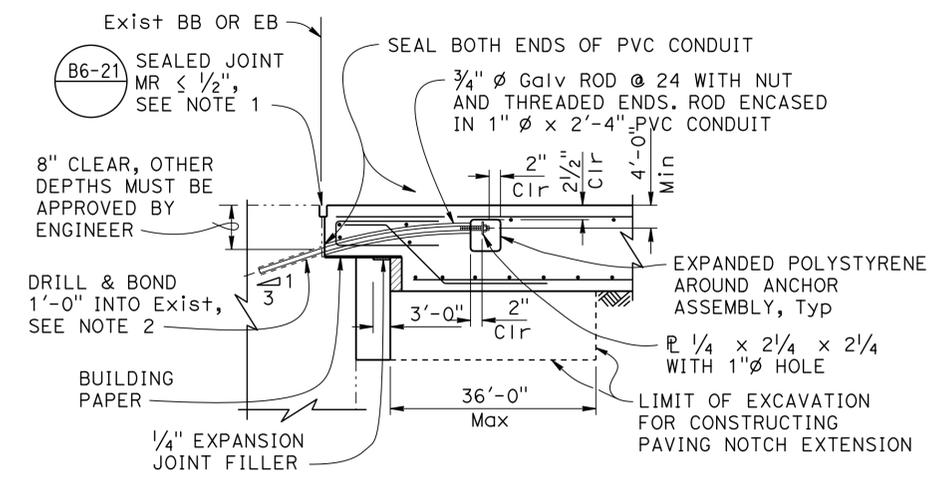


DETAIL B
1/2" = 1'-0"

DESIGN NOTES

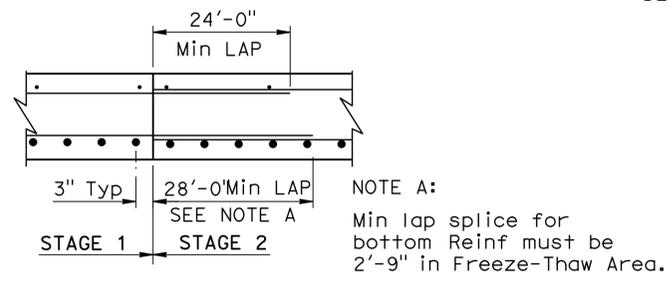
- DESIGN: AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014
- LIMIT STATES: Service I, Strength I & II, Extreme II and Fatigue I ($\gamma_{FAT} = 1.0$)
- DEAD LOAD: Includes 35 psf for future wearing surface
- LIVE LOAD: HL93 and permit design load
Equivalent strip width method: $W_1 = 12$ ft
Slab span: $L_1 = 24.5$ ft
- REINFORCED CONCRETE:
 $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$

- NOTES:
- For details not shown, see other plan sheets. Adjust reinforcement to clear sawcut for sealed joint.
 - Space reinforcement to avoid existing prestress anchorages and other abutment reinforcement.
 - End the plate or edge angle at beginning of barrier transition, end of wingwall, or end of structure approach as applicable.
 - Transverse joint must be a minimum of 5'-0" from an existing or constructed weakened plane joint in approach PCC roadway pavement. Refer to Standard Plans P10 and P14.
 - At the Contractor's option, approach slab transverse reinforcement may be placed parallel to BB or EB. Spacing of transverse reinforcement is measured along \perp roadway.
- Indicates Existing Structure



ABUTMENT TIE DETAIL
3/4" = 1'-0"

LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES



3/4" = 1'-0"

BAR CHAIR DETAIL
1" = 1'-0"

NOTE: The contractor must verify all controlling field dimensions before ordering or fabricating any material.

| | |
|-------------------------|-----------------------------------|
| STANDARD DRAWING | |
| FILE NO. xs3-150 | APPROVAL DATE <u>January 2015</u> |

| | |
|---|--|
| STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | |
|---|--|

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|----------------------------------|--|
| DIVISION OF ENGINEERING SERVICES | |
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|--------------------|--|--|--|
| BRIDGE NO. VARIOUS | | ROUTE 5 BRIDGES | |
| POST MILE VARIES | | STRUCTURE APPROACH TYPE R (30D) | |