

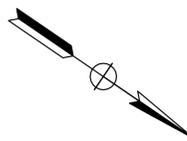
INDEX OF PLANS

| SHEET No. | DESCRIPTION |
|-----------|---|
| 1 | TITLE AND LOCATION MAP |
| 2-4 | TYPICAL CROSS SECTIONS |
| 5-7 | CONSTRUCTION DETAILS |
| 8 | CONSTRUCTION AREA SIGNS |
| 9-11 | PAVEMENT DELINEATION DETAILS AND QUANTITIES |
| 12-13 | SUMMARY OF QUANTITIES |
| 14-20 | ELECTRICAL PLANS, DETAILS AND QUANTITIES |
| 21-25 | SPECIAL ELECTRICAL STRUCTURES |
| 26-40 | REVISED STANDARD PLANS |

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

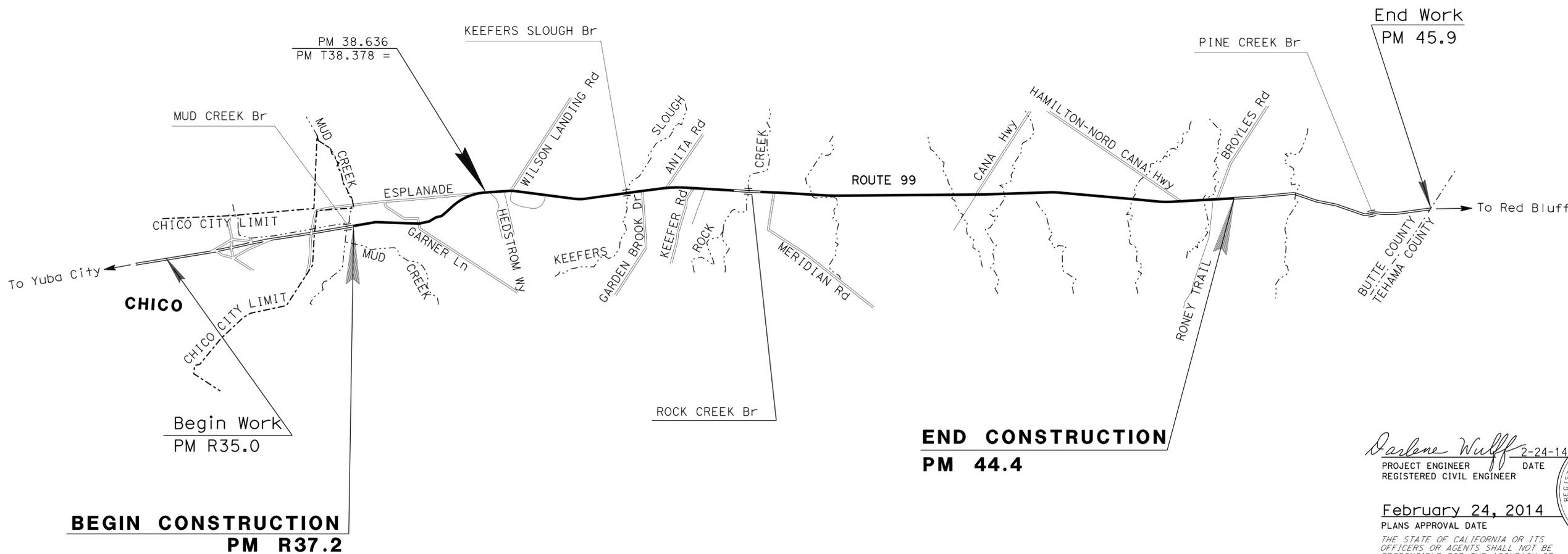
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN BUTTE COUNTY
NEAR CHICO FROM 0.5 MILE
SOUTH OF GARNER LANE TO 0.1
MILE NORTH OF BROYLES ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03 | But | 99 | R37.2/44.4 | 1 | 40 |

LOCATION MAP



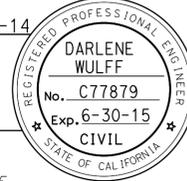
PROJECT MANAGER
RONALD S. SYKES
 DESIGN ENGINEER
RONALD S. SYKES

BEGIN CONSTRUCTION
PM R37.2

END CONSTRUCTION
PM 44.4

End Work
PM 45.9

Darlene Wulff 2-24-14
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
February 24, 2014
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



NO SCALE

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

| | |
|--------------|-------------------|
| CONTRACT No. | 03-4M8304 |
| PROJECT ID | 0313000073 |

DATE PLOTTED => 28-FEB-2014
 TIME PLOTTED => 14:10
 LAST REVISION: 00-00-00

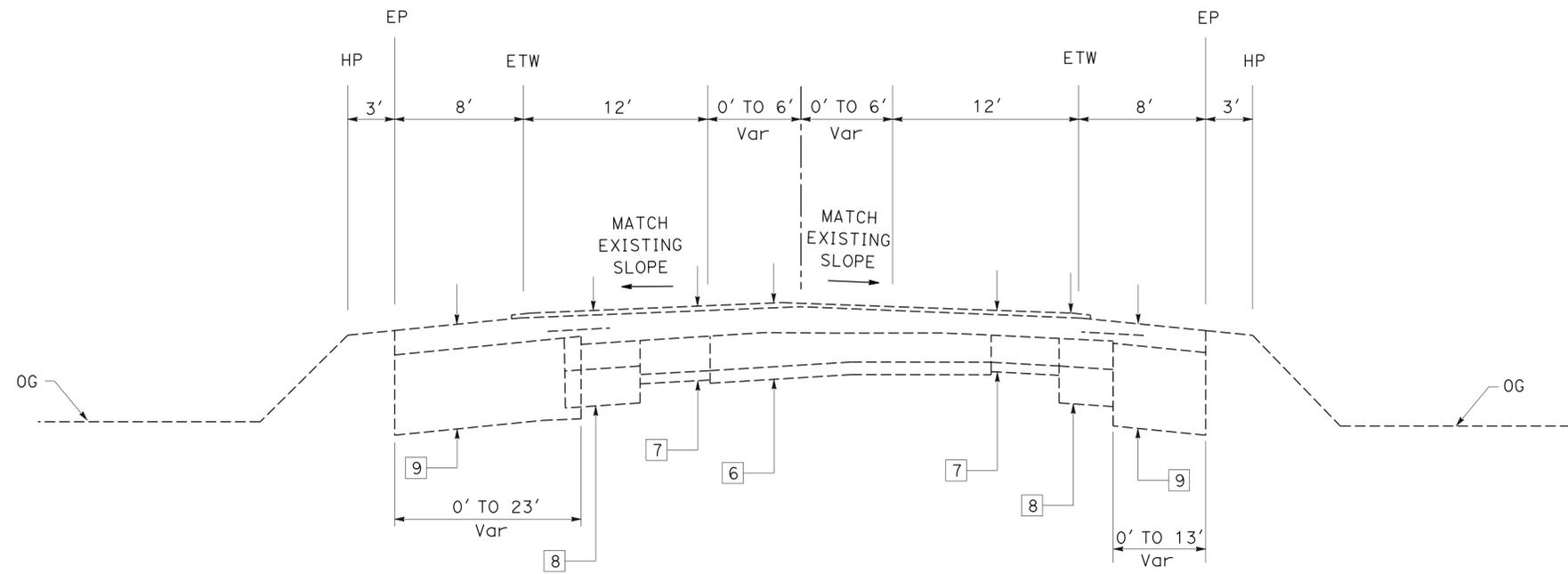
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03 | But | 99 | R37.2/44.4 | 3 | 40 |

Darlene Wulff 2-24-14
 REGISTERED CIVIL ENGINEER DATE

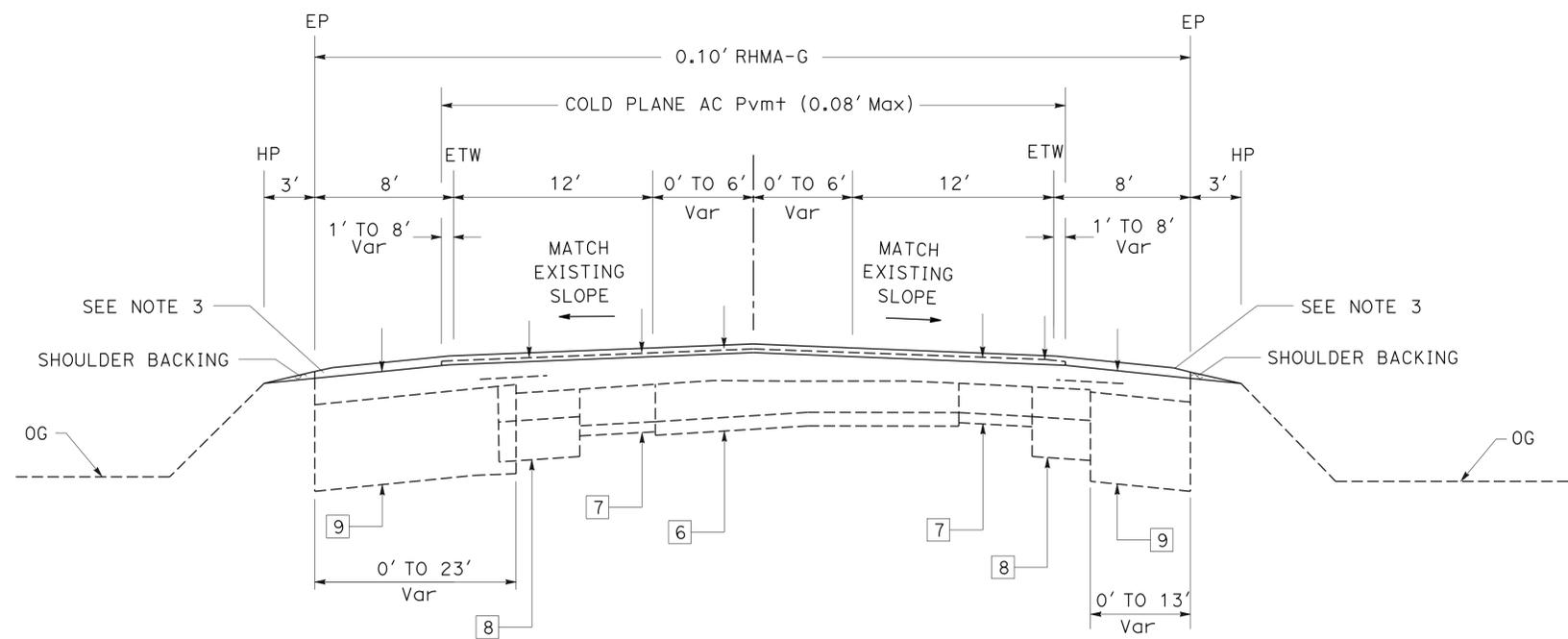
2-24-14
 PLANS APPROVAL DATE

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

| | | | |
|--|-----------------------|---------------|-----------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | DESIGNED BY | REVISOR |
| Caltrans MAINTENANCE DESIGN | RONALD S. SYKES | DARLENE WULFF | RONALD S. SYKES |
| | | CHECKED BY | DATE |
| | | | |



PM 39.38 TO PM 40.01
 FOR REPLACE ASPHALT CONCRETE SURFACING REFERENCE ONLY.
 SEE SHEET Q-1



PM T37.93 TO PM 39.38
ROUTE 99

TYPICAL CROSS SECTIONS
 NO SCALE
X-2

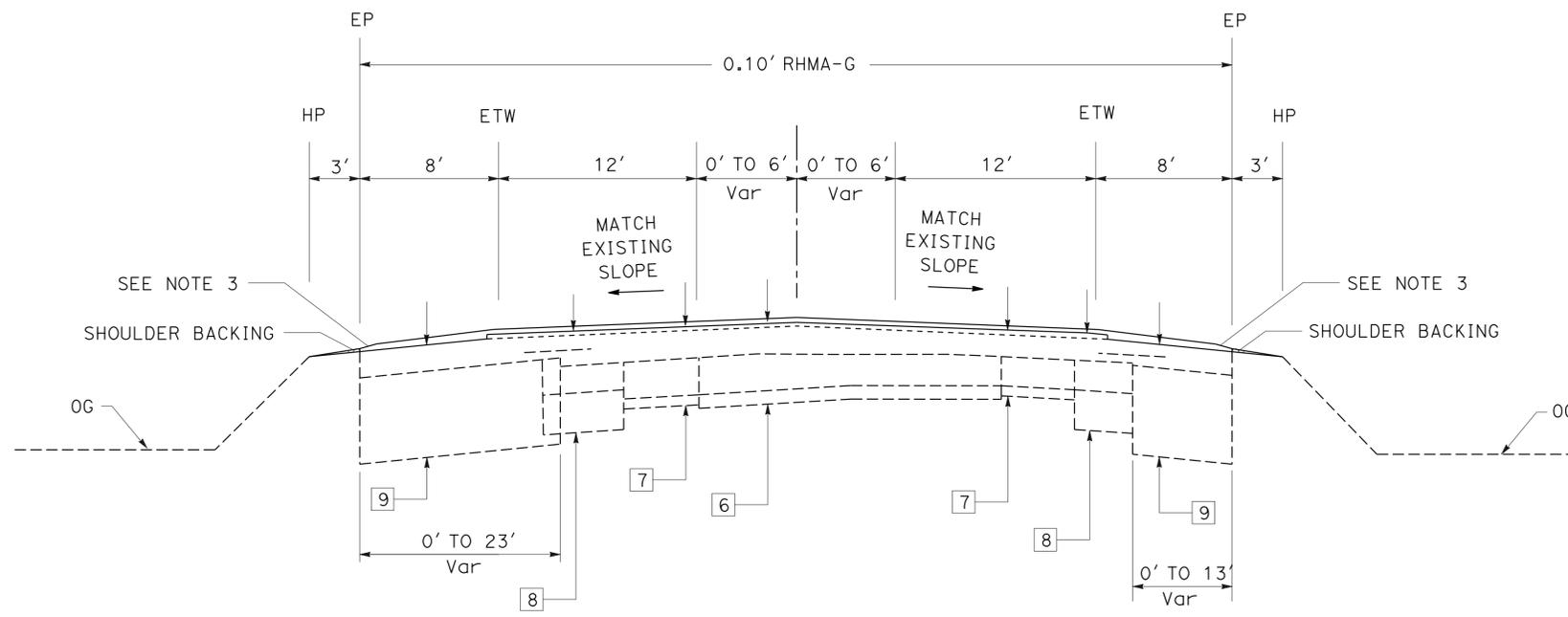
LAST REVISION DATE PLOTTED => 28-FEB-2014
 00-00-00 TIME PLOTTED => 14:10

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03 | But | 99 | R37.2/44.4 | 4 | 40 |

Darlene Wulff 2-24-14
 REGISTERED CIVIL ENGINEER DATE
 2-24-14
 PLANS APPROVAL DATE

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

| | | | | | |
|--|-----------------------|------------------------|-----------------|---------|--|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED/DESIGNED BY | DARLENE WULFF | REVISOR | |
| Caltrans MAINTENANCE DESIGN | RONALD S. SYKES | CHECKED BY | RONALD S. SYKES | DATE | |



PM 40.01 TO PM 40.51
 PM 40.75 TO PM 44.40
ROUTE 99

TYPICAL CROSS SECTIONS
 NO SCALE
X-3

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 5 | 40 |

Darlene Wulff 2-24-14
REGISTERED CIVIL ENGINEER DATE

2-24-14
PLANS APPROVAL DATE

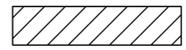
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

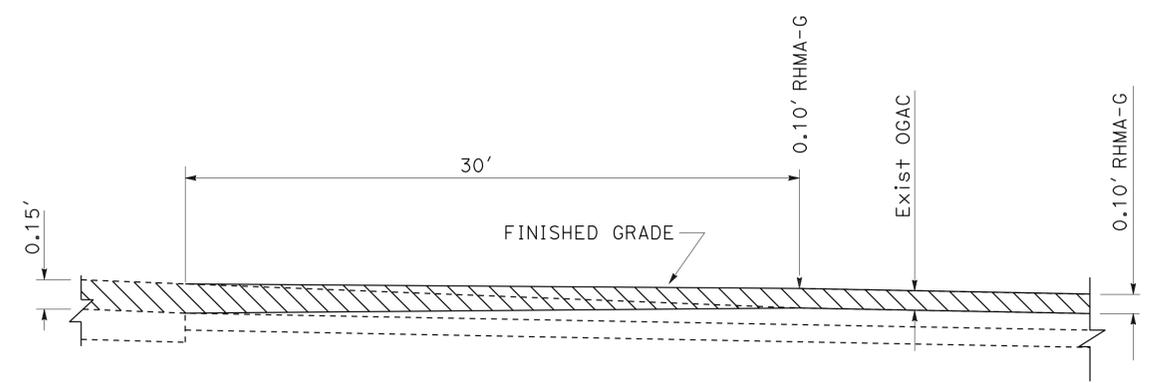
REGISTERED PROFESSIONAL ENGINEER
DARLENE WULFF
No. C77879
Exp 6-30-15
CIVIL
STATE OF CALIFORNIA

NOTES:

- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- FOR LOCATIONS OF REPLACE ASPHALT CONCRETE SURFACING, SEE SUMMARY OF QUANTITIES.
- EXACT LOCATIONS FOR REPLACE ASPHALT CONCRETE SURFACING ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

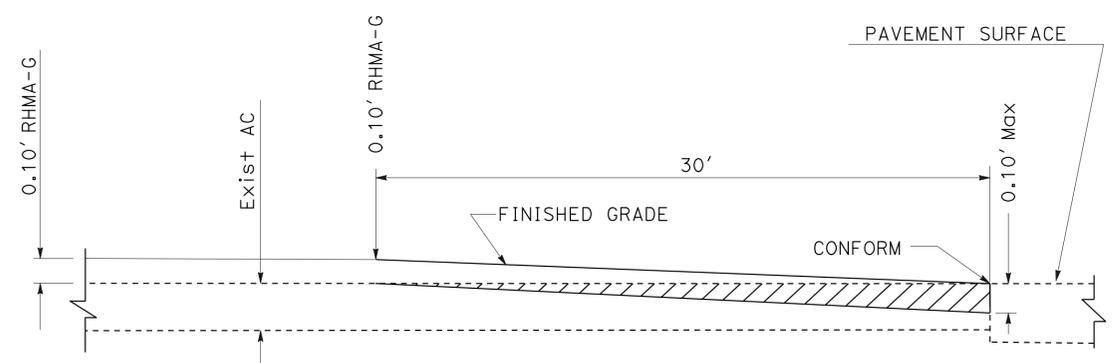
LEGEND:

-  COLD PLANE AC PAVEMENT
-  REPLACE ASPHALT CONCRETE SURFACING



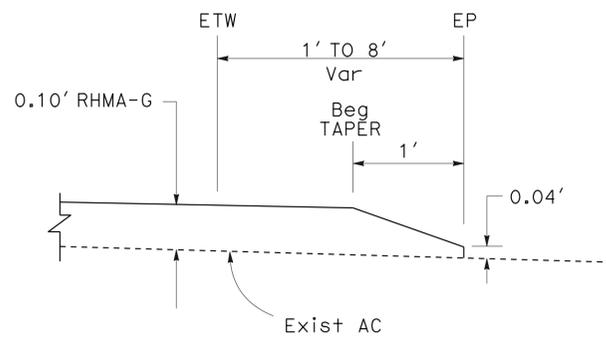
PAVEMENT CONFORM

PM T37.93



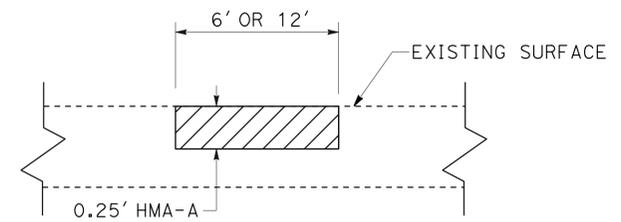
PAVEMENT CONFORM

PM 39.38
PM 40.01
PM 40.51
PM 40.75
PM 44.44



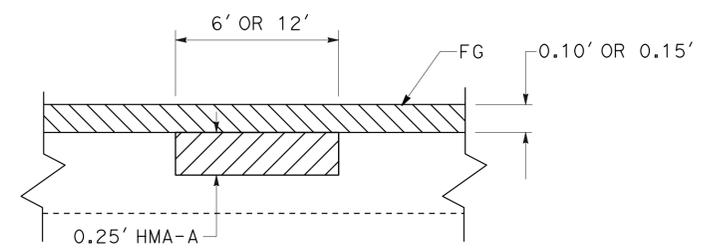
OVERLAY CONFORM DETAIL

DRIVEWAY LOCATIONS



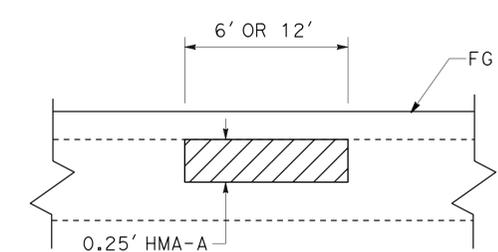
REPLACE ASPHALT CONCRETE SURFACING

PM 39.38 TO PM 40.01



REPLACE ASPHALT CONCRETE SURFACING

PM T37.59 TO PM 39.38



REPLACE ASPHALT CONCRETE SURFACING

PM 40.01 TO PM 40.51
PM 40.75 TO PM 44.40

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

REVISOR
DATE

DARLENE WULFF
RONALD S. SYKES

CALCULATED/DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR
RONALD S. SYKES

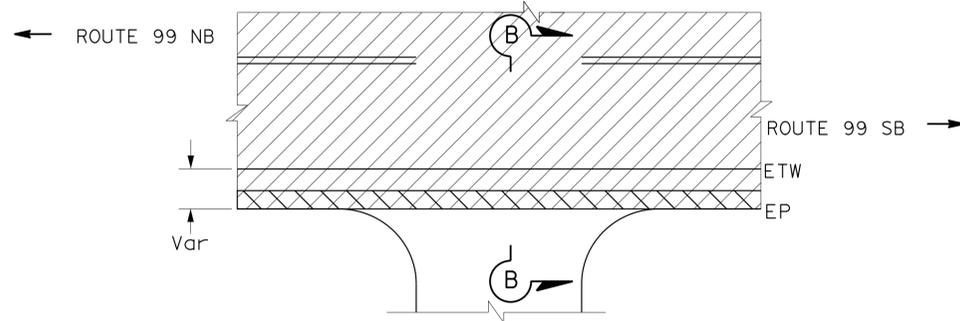
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

NOTES:

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

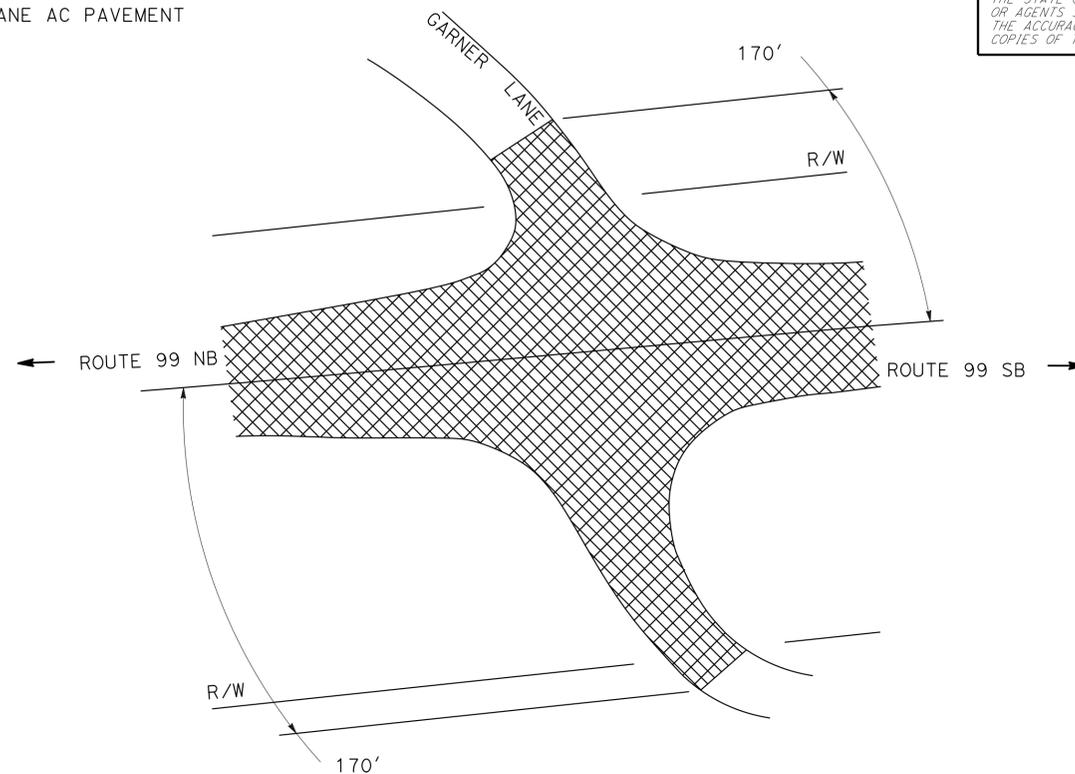
LEGEND:

- COLD PLANE AC PAVEMENT
- RHMA-G

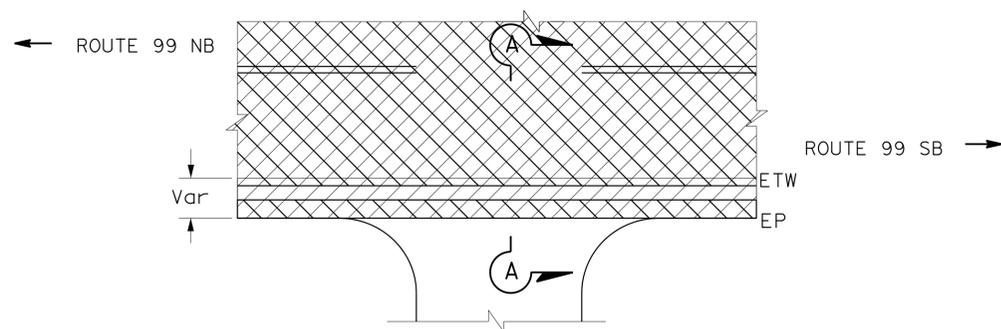


PRIVATE ROADS

| | | | |
|---------------|----------|------------------------|----------|
| KEEFER ROAD | PM 40.22 | GRAND PRAIRIE ROAD | PM 43.25 |
| PARSLEY LANE | PM 40.35 | HAMILTON NORD CANA Hwy | PM 44.00 |
| MERIDIAN ROAD | PM 40.84 | RONEY TRAIL | PM 44.28 |
| CANA Hwy | PM 42.41 | BROYLES ROAD | PM 44.32 |

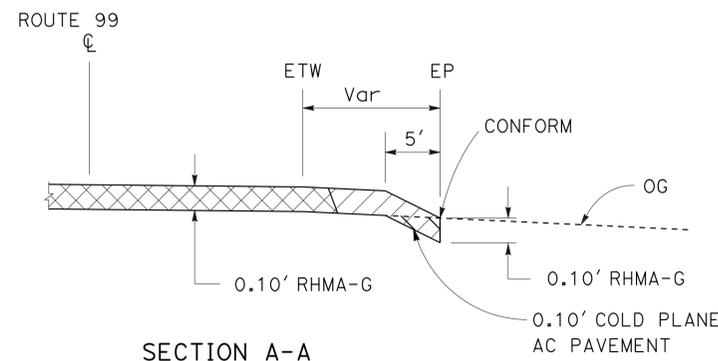


INTERSECTION AT GARNER LANE
PM T37.77

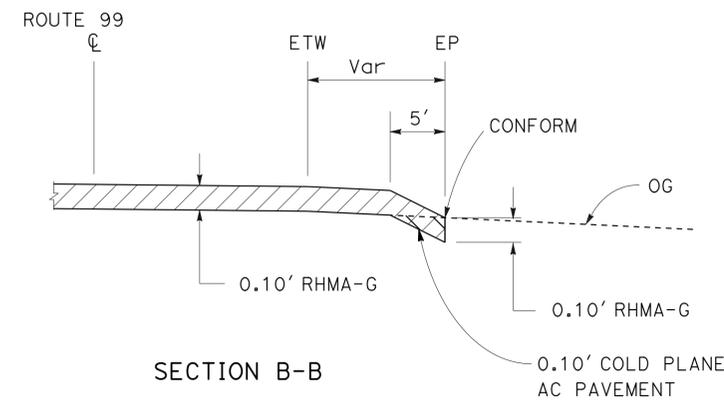


PRIVATE ROADS

| | |
|---------------------|-----------|
| ESPLANADE | PM T38.21 |
| HEDSTROM WAY | PM T38.36 |
| OUR WAY | PM 38.74 |
| WILSON LANDING ROAD | PM 38.79 |
| ANDERSON DRIVE | PM 38.89 |



SECTION A-A



SECTION B-B

CONSTRUCTION DETAILS
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: RONALD S. SYKES
 CALCULATED/DESIGNED BY: DARLENE WULFF
 CHECKED BY: RONALD S. SYKES
 REVISED BY: [] DATE REVISED: []

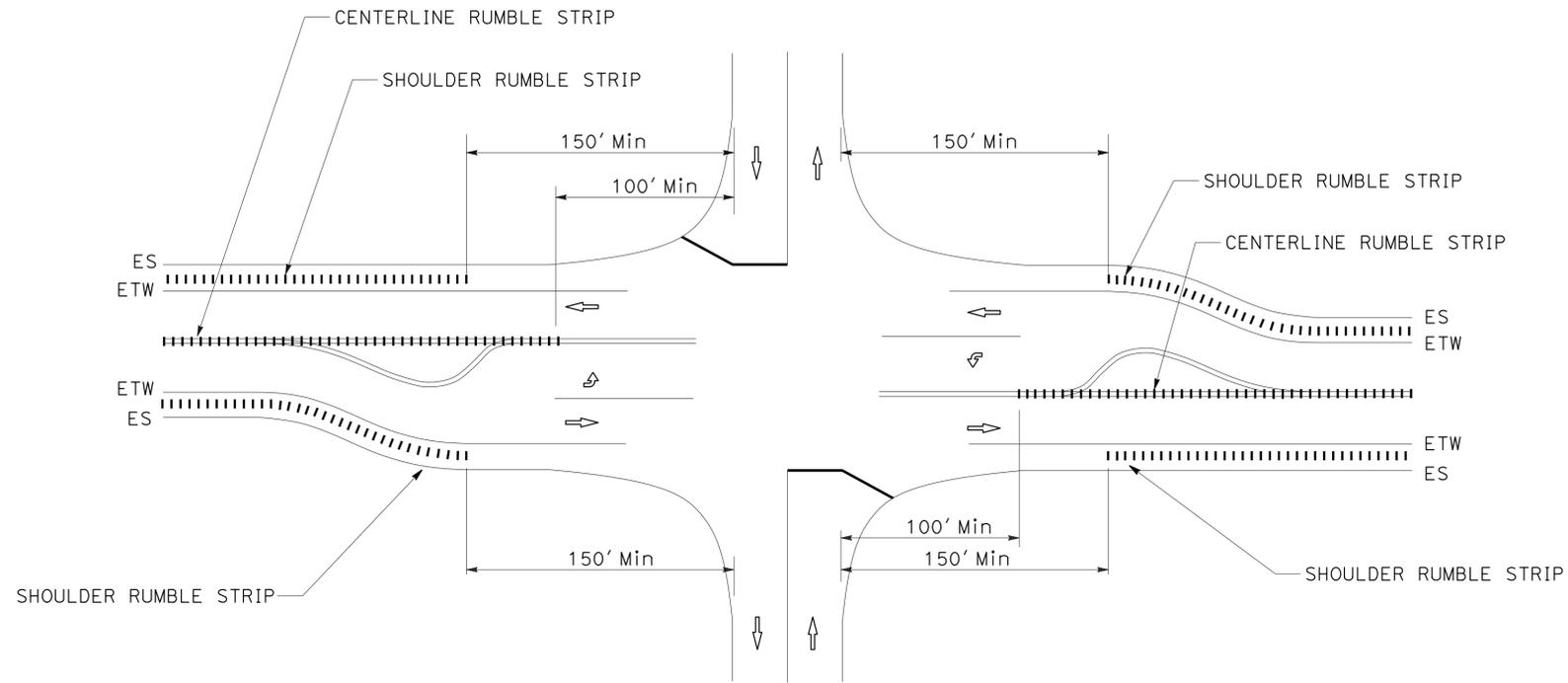
| | | | | | |
|--|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 7 | 40 |
| <i>Darlene Wulff</i> 2-24-14 REGISTERED CIVIL ENGINEER DATE | | | | | |
| 2-24-14 PLANS APPROVAL DATE | | | | | |
| <small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small> | | | | | |

NOTES:

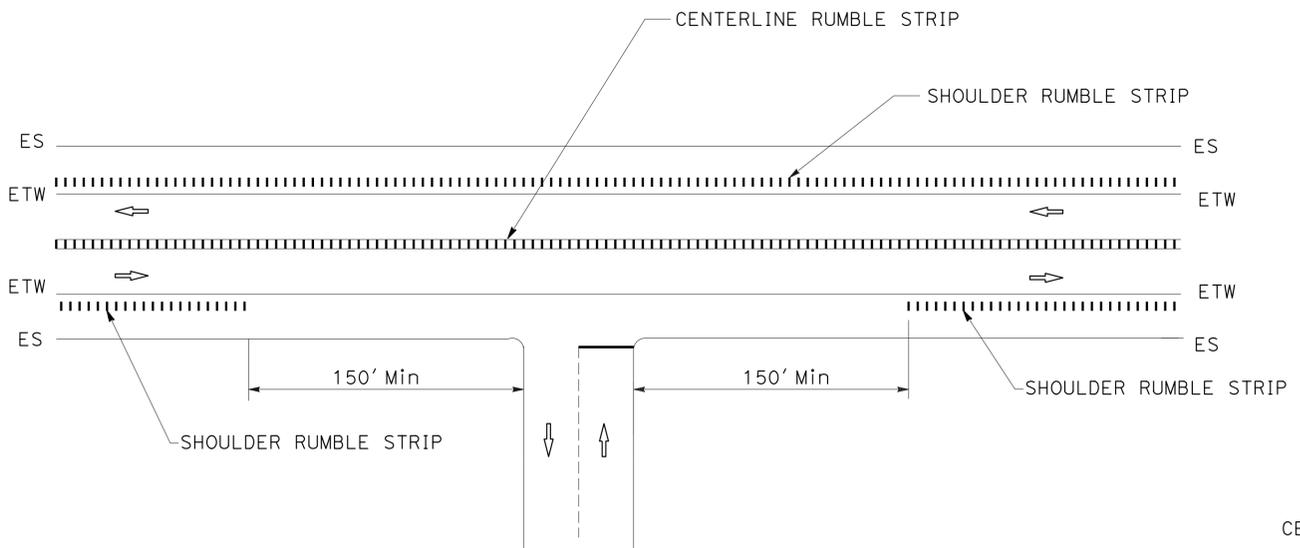
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- CENTERLINE RUMBLE STRIPS WILL CONTINUE THROUGH LOCATIONS WITH PRIVATE DRIVEWAYS UNLESS OTHERWISE NOTED ON THE PLANS.
- CENTERLINE RUMBLE STRIPS SHALL NOT BE PLACED AT TWO-WAY LEFT TURN LANE LOCATIONS.
- CENTERLINE STRIPING PATTERN TO MATCH EXISTING UNLESS OTHERWISE NOTED.
- SEE STANDARD PLAN A40B FOR SHOULDER RUMBLE STRIP DETAILS.

LEGEND:

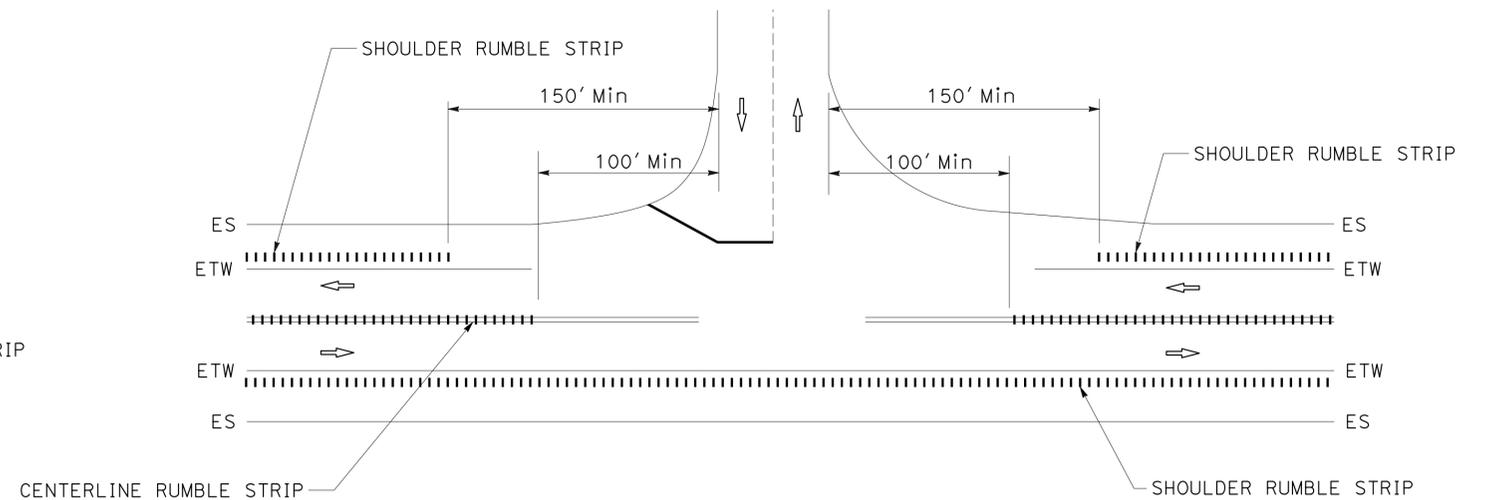
..... RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS)



RUMBLE STRIPS AT INTERSECTION WITH LEFT TURN POCKETS



**RUMBLE STRIPS AT DRIVEWAY/
PRIVATE ROAD APPROACH**



**RUMBLE STRIPS AT
PUBLIC ROAD INTERSECTION**

CONSTRUCTION DETAILS

NO SCALE

C-3

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 8 | 40 |

Kris M. Albers 2-24-14
REGISTERED CIVIL ENGINEER DATE

2-24-14
PLANS APPROVAL DATE

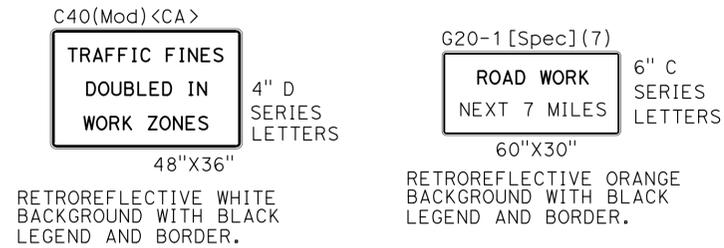
REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-15
CIVIL

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.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

| SIGN LOCATION AND DESCRIPTION | FACING TRAFFIC | | | | SIGN CODE | | SIGN MESSAGE | PANEL SIZE | NUMBER AND SIZE OF POST | NUMBER OF SIGNS |
|--|----------------|----|----|----|------------------|------------|-------------------------------------|------------|-------------------------|-----------------|
| | NB | SB | EB | WB | FEDERAL | CALIFORNIA | | | | |
| 500 FT BEFORE BEGIN CONSTRUCTION PM R37.50 | 1 | | | | G20-1 [Spec] (7) | | ROAD WORK NEXT 7 MILES | 60" X 30" | 2-4"X6" | 1 |
| 250 FT BEFORE BEGIN CONSTRUCTION PM R37.54 | | 1 | | | G20-2 | C14 | END ROAD WORK | 36" X 18" | 1-4"X4" | 1 |
| 250 FT BEFORE BEGIN CONSTRUCTION - PM R37.54 | 1 | | | | | C40(Mod) | TRAFFIC FINES DOUBLED IN WORK ZONES | 48" X 36" | 1-4"X6" | 1 |
| GARNER LN - PM T37.77 | | | 1 | 1 | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 2 |
| ESPLANADE - PM T38.21 | | | 1 | | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| HEDSTROM WAY - PM T38.36 | | | | 1 | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| WILSON LANDING RD - PM 38.79 | | | 1 | | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| GARDEN BROOK DR - PM 39.83 | | | | 1 | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| ANITA RD - PM 40.02 | | | 1 | | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| KEEFER RD - PM 40.22 | | | | 1 | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| MERIDIAN RD - PM 40.84 | | | | 1 | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| CANA HIGHWAY - PM 42.41 | | | 1 | | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| HAMILTON NORD/CANA HIGHWAY - PM 44.00 | | | 1 | | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| BROYLES RD - PM 44.32 | | | 1 | | W20-1 | C23 | ROAD WORK AHEAD | 48" X 48" | 1-6"X6" | 1 |
| 250 FT AFTER END CONSTRUCTION - PM 44.45 | | 1 | | | | C40(Mod) | TRAFFIC FINES DOUBLED IN WORK ZONES | 48" X 36" | 1-4"X6" | 1 |
| 250 FT AFTER END CONSTRUCTION - PM 44.37 | 1 | | | | G20-2 | C14 | END ROAD WORK | 36" X 18" | 1-4"X4" | 1 |
| 500 FT AFTER END CONSTRUCTION - PM 44.50 | | 1 | | | G20-1 [Spec] (7) | | ROAD WORK NEXT 7 MILES | 60" X 30" | 2-4"X6" | 1 |

- NOTES:
1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.



SIGN DETAILS

CONSTRUCTION AREA SIGNS

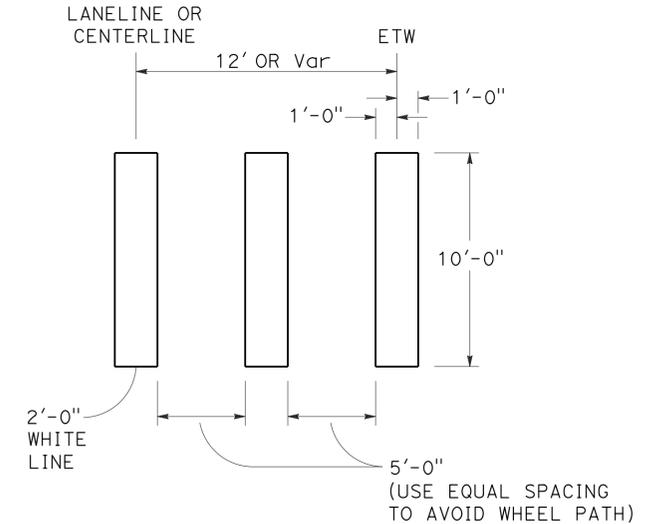
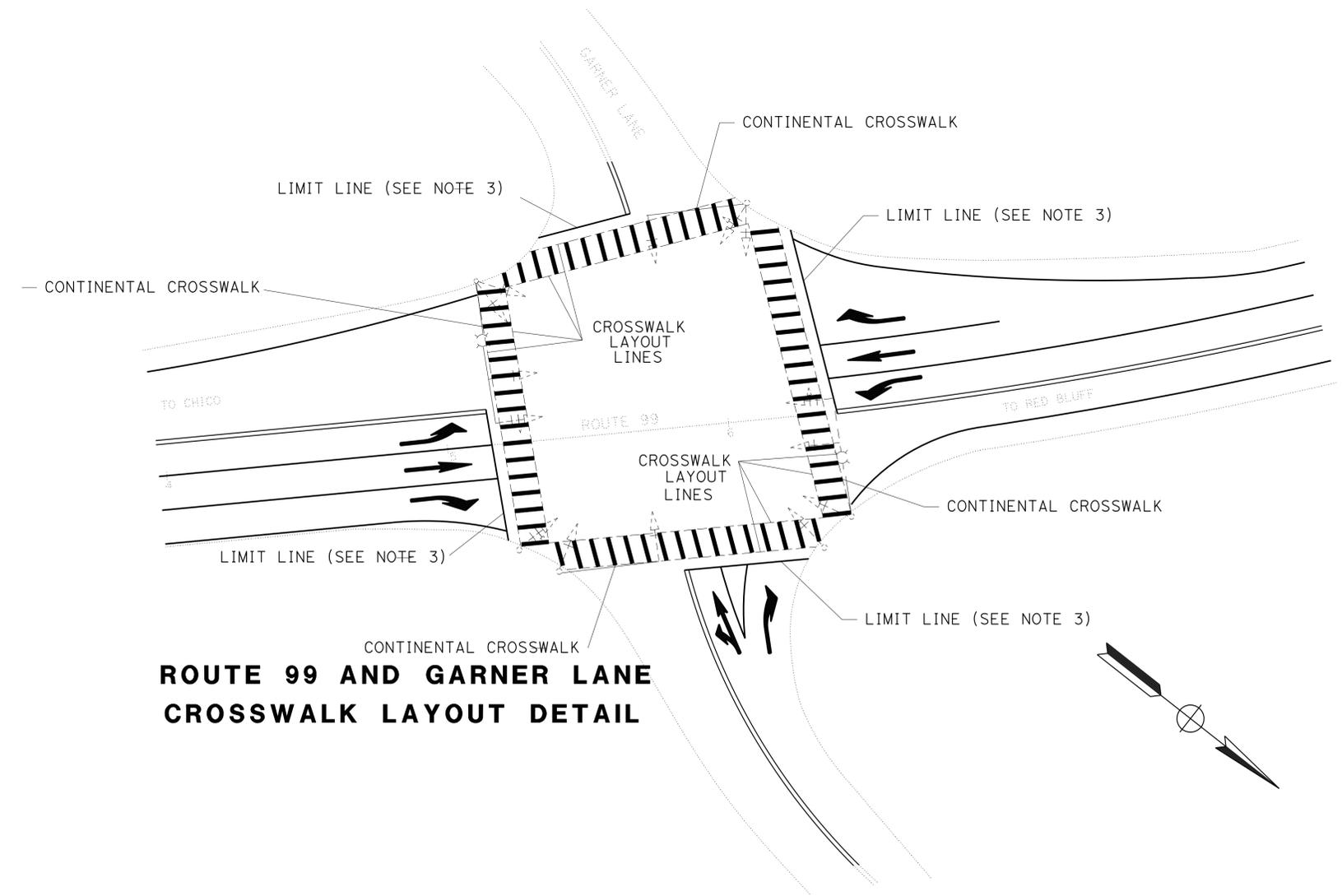
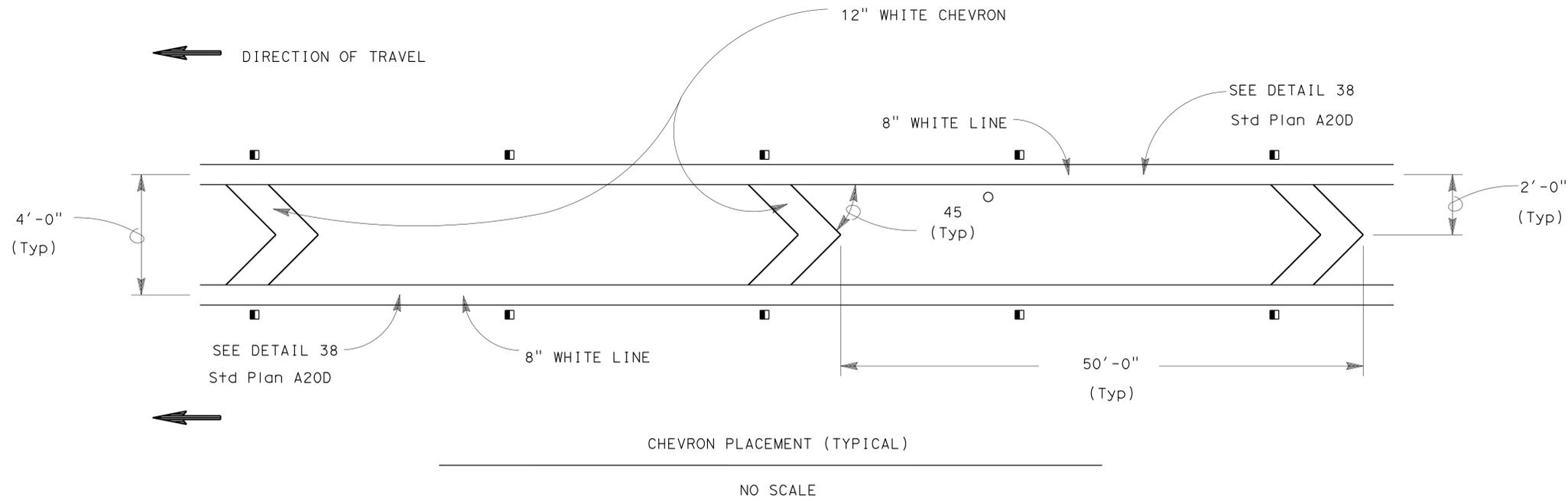
NO SCALE

CS-1

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03 | But | 99 | R37.2/44.4 | 9 | 40 |

Kris M. Albers 2-24-14
 REGISTERED CIVIL ENGINEER DATE
 2-24-14
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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



CONTINENTAL CROSSWALK DETAIL
(TYPICAL)

- NOTES:**
- CROSSWALK MARKINGS SHALL BE INSTALLED PARALLEL TO THE ROADWAY CENTERLINE.
 - ALL STRIPING PATTERNS SHALL STOP 1'-0" FROM THE CROSSWALK (TYPICAL).
 - THE LIMIT LINE SHALL BE INSTALLED 4'-0" IN ADVANCE OF THE CROSSWALK.

PAVEMENT DELINEATION DETAILS
SCALE: 1"=20'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC
 FUNCTIONAL SUPERVISOR: SERGIO ACEVES
 CHECKED BY: KRIS ALBERS
 DESIGNED BY: JOHN KEBER
 REVISIONS: (None)
 DATE: 7/2/2010

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

LAST REVISION: DATE PLOTTED => 28-FEB-2014
 01-28-14 TIME PLOTTED => 14:49

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 10 | 40 |

Kris M. Albers 2-24-14
REGISTERED CIVIL ENGINEER DATE

2-24-14
PLANS APPROVAL DATE

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

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

THERMOPLASTIC TRAFFIC STRIPE

| LOCATION | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) | | | | | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 36-12) | | | 4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 12-3) | 8" THERMOPLASTIC TRAFFIC STRIPE (EWNV) |
|--|--|--------|---------|--------|--------|---|--------|--------|--|--|
| | DETAIL NUMBER | | | | | DETAIL NUMBER | | | DETAIL NUMBER | DETAIL NUMBER |
| | 19 LF | 22 LF | 27B LF | 29 LF | 32 LF | 6 LF | 19 LF | 32 LF | 27C LF | 38 LF |
| BEGIN CONSTRUCTION (PM T37.59) TO GARNER LANE | | 848 | 1,520 | 1,268 | | | | | | |
| GARNER LANE TO ESPLANADE | | 2,342 | 4,550 | 4,860 | | | | | | |
| ESPLANADE TO HEDSTROM WAY | | | 1,297 | 1,518 | 1,518 | | | 1,518 | | |
| HEDSTROM WAY TO OUR WAY | | | 1,297 | 1,518 | 1,518 | | | 1,518 | | |
| OUR WAY TO WILSON LANDING ROAD | | 318 | 1,712 | 210 | 210 | | | 210 | | |
| WILSON LANDING ROAD TO ANDERSON BROTHERS DRIVE | | 504 | 9,489 | 298 | 298 | | | 298 | | |
| ANDERSON BROTHERS DRIVE TO GARDEN BROOK DRIVE | | 3,594 | 1,826 | 6,880 | 2,888 | | | 2,888 | | |
| GARDEN BROOK DRIVE TO ANITA ROAD | | 654 | 1,523 | 1,350 | 1,350 | | | 1,350 | | |
| ANITA ROAD TO KEEFER ROAD | | | 6,420 | 1,760 | 1,760 | | | 1,760 | | |
| KEEFER ROAD TO MERIDIAN ROAD | | 3,274 | 16,507 | 2,912 | 1,902 | | | 1,902 | | |
| MERIDIAN ROAD TO CANA HIGHWAY | 429 | 2,280 | 16,457 | 1,792 | | 6,423 | 429 | | | |
| CANA HIGHWAY TO HAMILTON NORD CANA HIGHWAY | 524 | 1,158 | 3,230 | 1,200 | | 6,860 | 524 | | | |
| HAMILTON NORD CANA HIGHWAY TO BROYLES ROAD | | 2,504 | 765 | 1,212 | | | | | | |
| BROYLES ROAD TO END CONSTRUCTION (PM 44.4) | | | | 1,920 | | | | | | |
| SEE INTERSECTIONS BELOW | | | | | | | | | | |
| GARNER LANE | | | | | | | | 330 | | 959 |
| ESPLANADE AND RIGHT TURN POCKET | | | | | | | | 312 | | 1,081 |
| HEDSTROM WAY | | | | | | | | 87 | | |
| OUR WAY | | | | | | | | 343 | | |
| WILSON LANDING ROAD | | | | | | | | 190 | | 626 |
| ANDERSON BROTHERS DRIVE (SOUTHERLY) | | | | | | | | 280 | | |
| ANDERSON BROTHERS DRIVE (NORTHERLY) | | | | | | | | 550 | | |
| GARDEN BROOK DRIVE | | | | | | | | 292 | | 98 |
| ANITA ROAD AND RIGHT TURN POCKET | | | | | | | | 516 | | 440 |
| KEEFER ROAD | | | | | | | | 215 | | 102 |
| MERIDIAN ROAD | | | | | | | | 285 | | 166 |
| CANA HIGHWAY | | | | | | | | 405 | | 303 |
| HAMILTON NORD CANA HIGHWAY AND RIGHT TURN POCKET | | | | | | | | 327 | | 253 |
| BROYLES ROAD | | | | | | | | | | 270 |
| SUBTOTAL | 953 | 17,476 | 66,593 | 28,698 | 11,444 | 13,283 | 953 | 11,444 | 4,132 | 4,298 |
| TOTAL | | | 125,164 | | | | 25,680 | | 4,132 | 4,298 |

EWNV: ENHANCED WET NIGHT VISION

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: SERGIO ACEVES
 CALCULATED/DESIGNED BY: CHECKED BY:
 KRIS ALBERS CHUCK COOK
 REVISED BY: DATE REVISED:

REMOVE THERMOPLASTIC TRAFFIC STRIPE

| DESCRIPTION | LF |
|-------------------|-------------|
| CHANNELIZING LINE | 3066 |
| TOTAL | 3066 |

REMOVE THERMOPLASTIC PAVEMENT MARKING

| DESCRIPTION | SQFT |
|----------------|------------|
| TYPE III ARROW | 336 |
| "STOP" | 176 |
| LIMIT LINE | 219 |
| TOTAL | 731 |

THERMOPLASTIC PAVEMENT MARKING (EWNV)

| DESCRIPTION | NUMBER | SQFT |
|-------------------------------|--------|--------------|
| TYPE V ARROW | 1 | 33 |
| TYPE II ARROW | 1 | 45 |
| TYPE III ARROW | 28 | 1,176 |
| "STOP" | 21 | 462 |
| "SIGNAL" | 1 | 32 |
| "AHEAD" | 1 | 31 |
| CONTINENTAL CROSSWALK (WHITE) | 4 | 1705 |
| LIMIT LINE | 17 | 734 |
| CHEVRON | 8 | 40 |
| TOTAL | | 4,258 |

EWNV: ENHANCED WET NIGHT VISIABILITY

PAVEMENT MARKER

| DETAIL NUMBER | RETROREFLECTIVE | | |
|-----------------|-----------------|------------|-----------|
| | TYPE D | TYPE G | TYPE H |
| | EA | EA | EA |
| 6 | 278 | | |
| 19 | 21 | | 42 |
| 22 | 730 | | |
| 29 | 600 | | |
| 32 | 600 | | |
| 38 | | 181 | |
| SUBTOTAL | 2229 | 181 | 42 |
| TOTAL | 2452 | | |

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 11 | 40 |

Kris M. Albers 2-24-14
REGISTERED CIVIL ENGINEER DATE

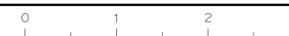
2-24-14
PLANS APPROVAL DATE

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: SERGIO ACEVES
 CALCULATED/DESIGNED BY: KRIS ALBERS
 CHECKED BY: CHUCK COOK
 REVISED BY: DATE REVISION

PAVEMENT DELINEATION QUANTITIES

PDQ-2



| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 12 | 40 |

Darlene Wulff 2-24-14
REGISTERED CIVIL ENGINEER DATE

2-24-14
PLANS APPROVAL DATE

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

ROADWAY QUANTITIES

| LOCATION | DESCRIPTION | | RUBBERIZED HOT MIX ASPHALT (GAP GRADED) | TACK COAT | PREPAVING GRINDING DAY |
|-----------------------|---------------------------|------------------------------|---|--------------|------------------------------|
| | BEGIN | END | TON | TON | EA |
| PM T37.59 - PM T37.93 | BEGIN PROJECT | BEGIN EXISTING OPEN GRADED | 1424.1 | 3.1 | - |
| PMT37.93 - PM 39.38 | BEGIN EXISTING OPEN GRADE | 0.31 MILE S OF KEEFER SLOUGH | 2451.9 | 8.5 | - |
| PM 40.01 - PM 40.51 | ANITA ROAD | 0.14 MILE S OF ROCK CREEK | 1103.9 | 2.5 | 2 |
| PM 40.75 - PM 44.40 | 0.10 MILE N OF ROCK CREEK | END OF PROJECT | 6691.2 | 15.2 | |
| TOTAL | | | 11,671.1 | 29.3 | 2 |

REPLACE ASPHALT CONCRETE SURFACING

| LOCATION * | WIDTH | DESCRIPTION | | REPLACE ASPHALT CONCRETE SURFACING | (N) HOT MIX ASPHALT (TYPE A) |
|------------------------|-------|------------------------------|------------------------------|---|---------------------------------------|
| | | BEGIN | END | CY | TON |
| PMT37.59 - PMT37.93 R+ | 12 | BEGIN PROJECT | BEGIN EXISTING OPEN GRADED | 134.9 | 273 |
| PMT37.93 - PM39.38 R+ | 12 | BEGIN EXISTING OPEN GRADE | 0.31 MILE S OF KEEFER SLOUGH | 42.8 | 87 |
| PM 40.75 - PM44.40 R+ | 6 | 0.10 MILE N OF ROCK CREEK | END OF PROJECT | 25.5 | 52 |
| PMT37.93 - PM39.38 L+ | 6 | BEGIN EXISTING OPEN GRADE | 0.31 MILE S OF KEEFER SLOUGH | 12.3 | 25 |
| PM 39.38 - PM40.01 L+ | 6 | 0.31 MILE S OF KEEFER SLOUGH | ANITA ROAD | 6.2 | 13 |
| PM 40.01 - PM40.51 L+ | 6 | ANITA ROAD | 0.14 MILE S OF ROCK CREEK | 97.1 | 197 |
| PM 40.75 - PM44.40 L+ | 6 | 0.10 MILE N OF ROCK CREEK | END OF PROJECT | 54.9 | 111 |
| SUBTOTAL | | | | 373.7 | 758 |
| TOTAL | | | | 373.7 | |

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
* EXACT LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

COLD PLANE ASPHALT CONCRETE PAVEMENT

| LOCATION** | COLD PLANE ASPHALT CONCRETE PAVEMENT | COMMENTS |
|---------------------|---|-------------|
| | SQYD | |
| PMT37.59 - PMT37.93 | 12,839 | REMOVE AC |
| PMT37.93 - PM 39.38 | 24,761 | REMOVE OGAC |
| PMT37.59 - PM 44.40 | 1,717 | CONFORMS* |
| TOTAL | 39,317 | |

** SEE CONSTRUCTION DETAILS FOR EXACT LOCATIONS

REMOVE ASPHALT CONCRETE PAVEMENT

| LOCATION *** | REMOVE ASPHALT CONCRETE PAVEMENT |
|---------------------|-------------------------------------|
| | SQFT |
| PM 40.89 - PM 40.99 | 1,200 |
| TOTAL | 1,200 |

*** EXACT LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
FUNCTIONAL SUPERVISOR: RONALD S. SYKES
CALCULATED/DESIGNED BY: DARLENE WULFF
CHECKED BY: RONALD S. SYKES
REVISED BY: DARLENE WULFF
DATE REVISED: RONALD S. SYKES



| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | Bu+ | 99 | R37.2/44.4 | 13 | 40 |

Darlene Wulff 2-24-14
REGISTERED CIVIL ENGINEER DATE

2-24-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DARLENE WULFF
No. C77879
Exp 6-30-15
CIVIL
STATE OF CALIFORNIA

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

**SHOULDER RUMBLE STRIP
(HMA, GROUND-IN INDENTATIONS)**

| LOCATION | SHOULDER RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS) |
|-----------------------|--|
| | STA |
| PM R37.25 - T37.63 R+ | 20.9 |
| PM T37.76 - 39.38 R+ | 58.9 |
| PM 40.01 - 40.51 R+ | 23.4 |
| PM 40.75 - 44.40 R+ | 177.9 |
| PM R37.25 - T37.37 L+ | 7.4 |
| PM T37.45 - T37.63 L+ | 9.4 |
| PM T37.76 - 39.38 L+ | 61.8 |
| PM 40.01 - 40.51 L+ | 26.5 |
| PM 40.75 - 44.40 L+ | 174.9 |
| TOTAL | 561.1 |

**CENTERLINE RUMBLE STRIP
(HMA, GROUND-IN INDENTATIONS)**

| LOCATION | CENTERLINE RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS) |
|--------------------|--|
| | STA |
| PM T37.58 - T37.62 | 4.0 |
| PM T37.76 - 39.38 | 61.6 |
| PM 40.01 - 40.51 | 9.2 |
| PM 40.75 - 44.40 | 189.6 |
| TOTAL | 264.4 |

ADJUST GUARDRAIL

| LOCATION | ADJUST GUARDRAIL |
|---------------------|------------------|
| | LF |
| PM 43.64 - 43.67 R+ | 154 |
| PM 43.64 - 43.67 L+ | 154 |
| TOTAL | 308 |

FOR CONNECTION TO END TREATMENT,
SEE NOTE 3 ON RSP A77L3

SHOULDER BACKING

| LOCATION | SHOULDER BACKING |
|---------------------|------------------|
| | TON |
| PM T37.93 - PM39.38 | 420 |
| PM 40.01 - PM40.51 | 118 |
| PM 40.75 - PM44.40 | 888 |
| TOTAL | 1,426 |

**SUMMARY OF QUANTITIES
Q-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: RONALD S. SYKES
DARLENE WULFF
RONALD S. SYKES
REVISOR: REVISED BY: DATE
CHECKED BY: DESIGNED BY: DATE

| | | | | | |
|--|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | Bu+ | 99 | R37.2/44.4 | 14 | 40 |
| <i>R. P. Gill</i> REGISTERED ELECTRICAL ENGINEER | | | 2-24-14 | DATE | |
| 2-24-14 PLANS APPROVAL DATE | | | | | |
| <small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small> | | | | | |

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXACT LOCATION AND ORIENTATION OF ELECTRICAL EQUIPMENT TO BE APPROVED BY THE ENGINEER.
- REMOVE ALL TEMPORARY VIVDS EQUIPMENT AFTER COMPLETION OF WORK AND AS DIRECTED BY THE ENGINEER.
- PROVIDE 25' MINIMUM VERTICAL CLEARANCE FOR OVERHEAD CABLES/CONDUCTOR.

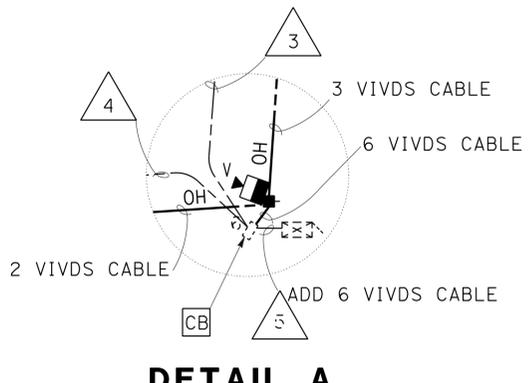
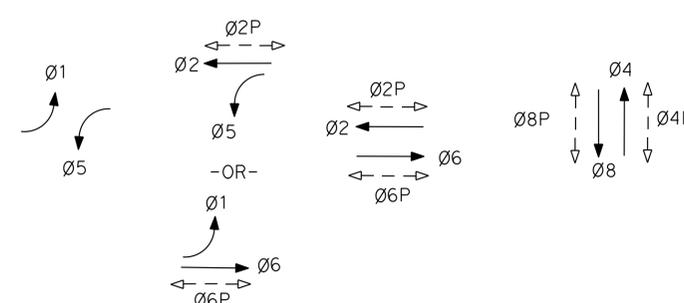
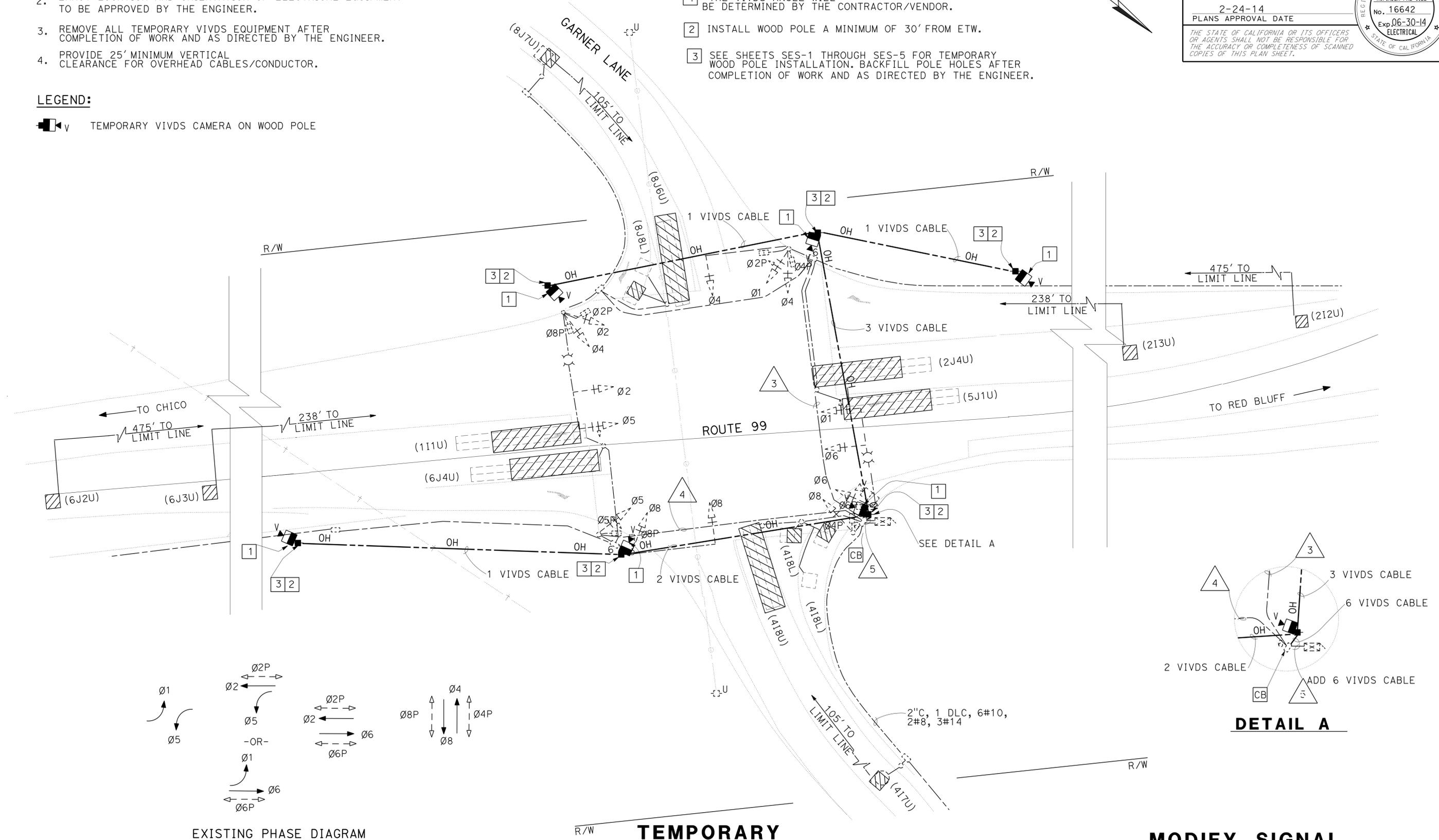
LEGEND (THIS SHEET ONLY):

- THE VIVDS ANGLE WILL BE DETERMINED BY THE CONTRACTOR/VENDOR.
- INSTALL WOOD POLE A MINIMUM OF 30' FROM ETW.
- SEE SHEETS SES-1 THROUGH SES-5 FOR TEMPORARY WOOD POLE INSTALLATION. BACKFILL POLE HOLES AFTER COMPLETION OF WORK AND AS DIRECTED BY THE ENGINEER.

LEGEND:

TEMPORARY VIVDS CAMERA ON WOOD POLE

| | | |
|---|------------|----------|
| REVISOR | DATE | REVISION |
| ZAHRA NIKNAFS | | |
| RUPINDER GILL | | |
| CALCULATED/DESIGNED BY | CHECKED BY | |
| STEVEN BLOCK | | |
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans ELECTRICAL DESIGN | | |



**TEMPORARY
(ROUTE 99 AND GARNER LANE)**

MODIFY SIGNAL

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1" = 20'

E-1

| | | | | | |
|--|--------|---------------------|--------------------------|-------------------------------------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 15 | 40 |
| R. P. Gill | | 2-24-14 | | REGISTERED ELECTRICAL ENGINEER DATE | |
| 2-24-14 | | PLANS APPROVAL DATE | | | |
| <small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small> | | | | | |

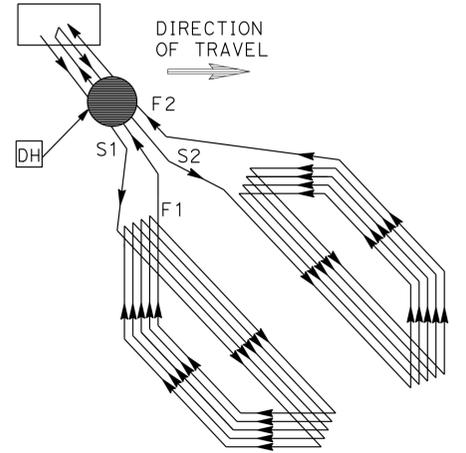
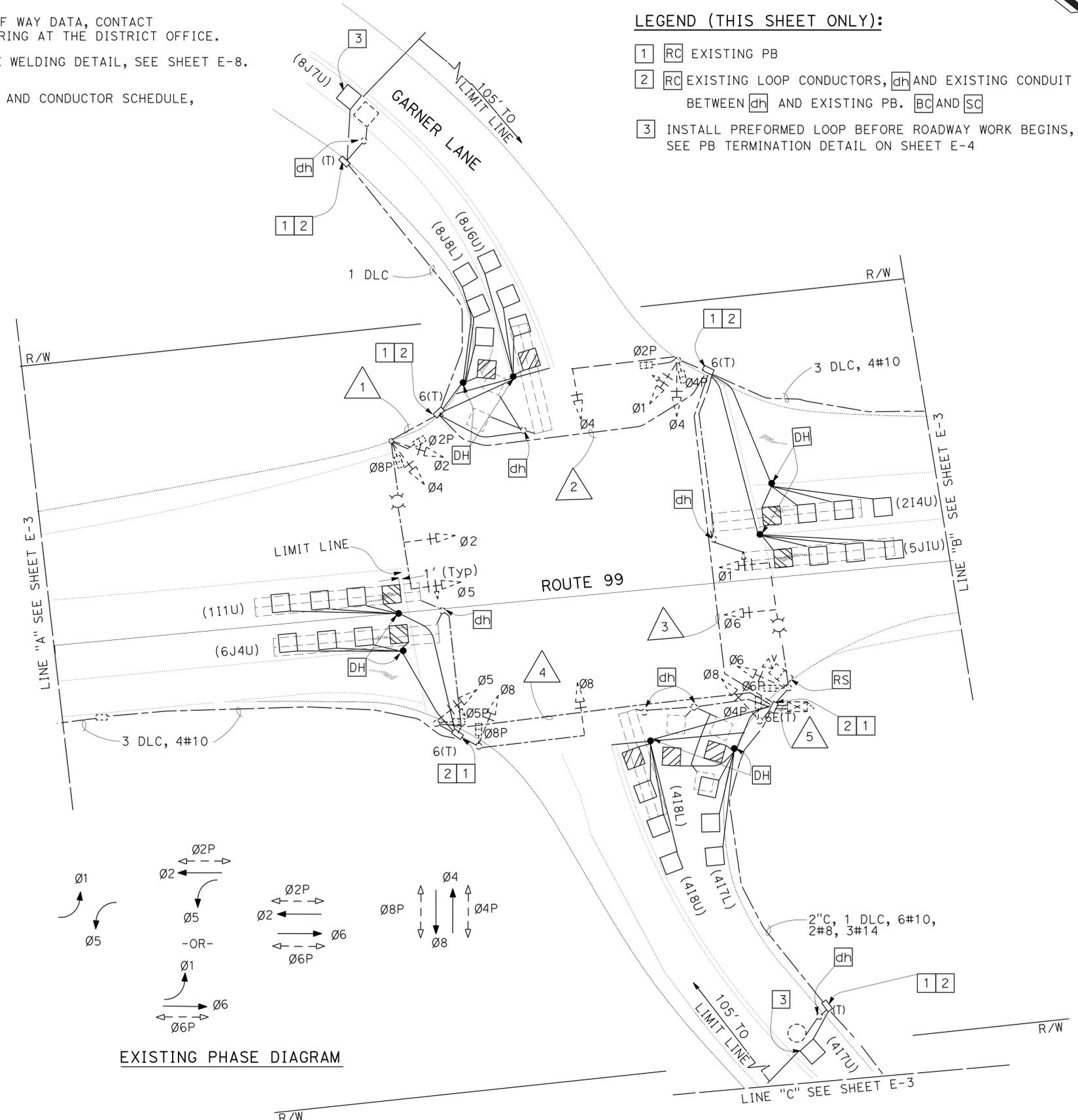
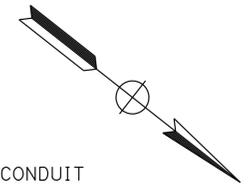


NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- FOR TRAFFIC PULL BOX WELDING DETAIL, SEE SHEET E-8.
- FOR MODIFIED CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-4.

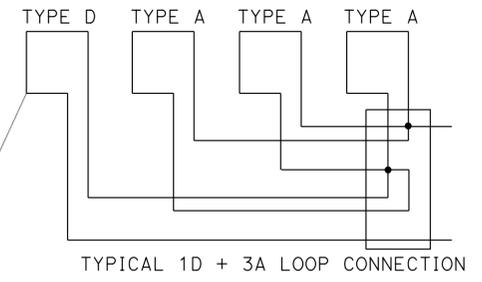
LEGEND (THIS SHEET ONLY):

- 1 RC EXISTING PB
- 2 RC EXISTING LOOP CONDUCTORS, dh AND EXISTING CONDUIT BETWEEN dh AND EXISTING PB. BC AND SC
- 3 INSTALL PREFORMED LOOP BEFORE ROADWAY WORK BEGINS, SEE PB TERMINATION DETAIL ON SHEET E-4



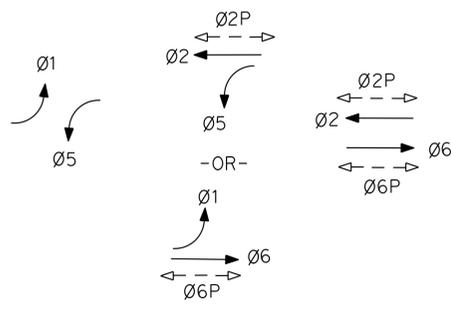
**MODIFIED WINDING DETAIL
TYPE D LOOP DETECTOR CONFIGURATION**
SEE STANDARD PLAN RSP ES-5B FOR NOTES AND DETAILS

DETAIL A
NO SCALE



TYPICAL 1D + 3A LOOP CONNECTION
TYPE D LOOP DETECTOR,
5 TURNS AS IN WINDING DETAIL A

TYPICAL LOOP CONNECTION
NO SCALE



EXISTING PHASE DIAGRAM

(ROUTE 99 AND GARNER LANE)

APPROVED FOR ELECTRICAL WORK ONLY

MODIFY SIGNAL

SCALE: 1" = 20'

E-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: STEVEN BLOK
 CALCULATED/DESIGNED BY: ZAHRA NIKNAFS
 CHECKED BY: RUPINDER GILL
 REVISED BY: DATE REVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

REVISOR: ZAHRA NIKNAFS
 DATE: RUPINDER GILL

CALCULATED/DESIGNED BY: STEVEN BLOCK
 CHECKED BY:

FUNCTIONAL SUPERVISOR: STEVEN BLOCK

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

ABBREVIATION:
 PG&E PACIFIC GAS AND ELECTRIC COMPANY

LEGEND (THIS SHEET ONLY):
 1 RC EXISTING PB
 2 RC EXISTING LOOP CONDUCTORS, dh AND EXISTING CONDUIT
 BETWEEN dh AND EXISTING PB. BC AND SC

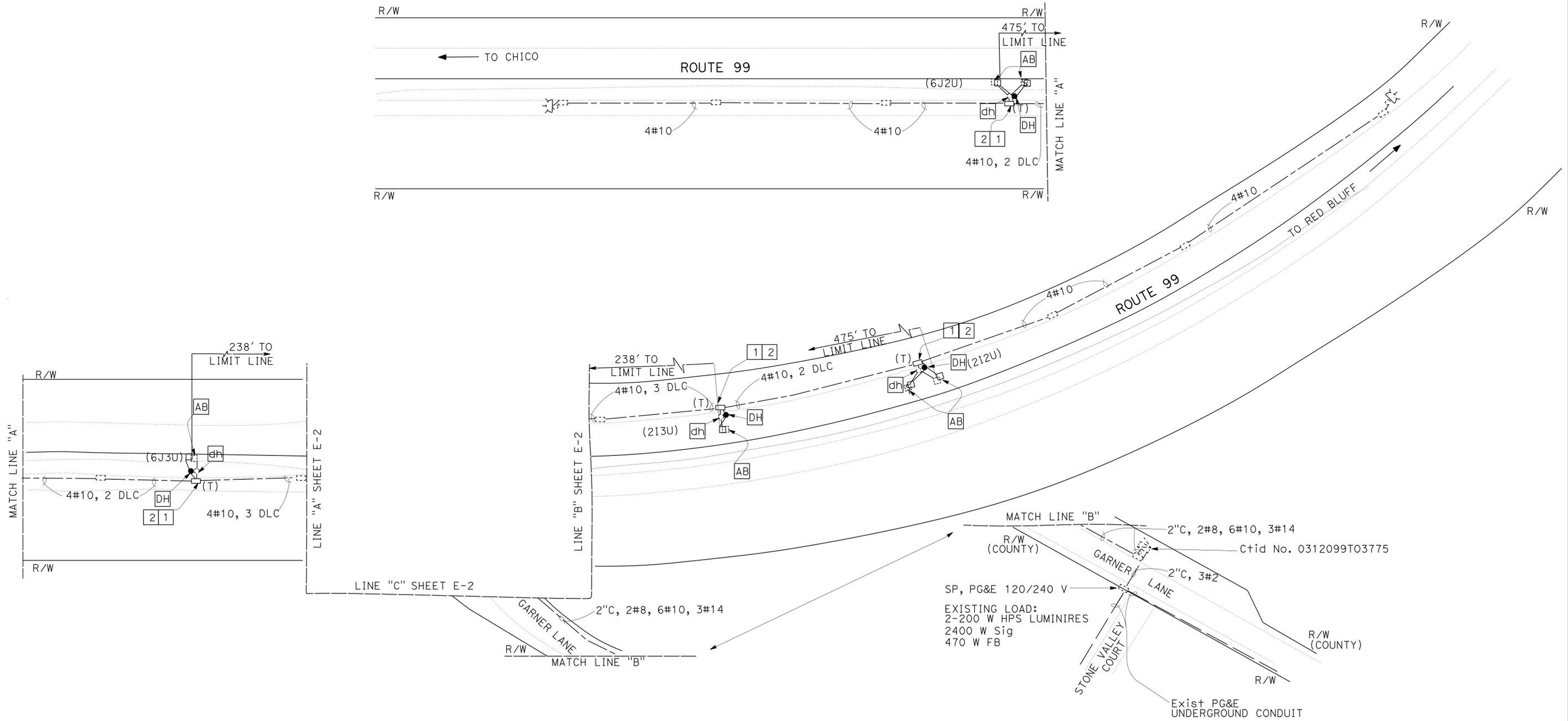
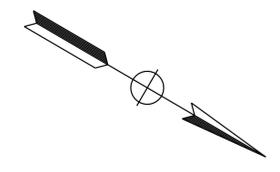
| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 16 | 40 |

R. P. Gill
 REGISTERED ELECTRICAL ENGINEER DATE 2-24-14

2-24-14
 PLANS APPROVAL DATE

RUPINDER PAL GILL
 No. 16642
 Exp. 06-30-14
 ELECTRICAL

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.



(ROUTE 99 AND GARNER LANE)

APPROVED FOR ELECTRICAL WORK ONLY

MODIFY SIGNAL
 SCALE: 1" = 50'
E-3

LAST REVISION DATE PLOTTED => 28-FEB-2014 02-14-14 TIME PLOTTED => 14:10

REVISOR
 ZAHRA NIKNAFS
 RUPINDER GILL

DESIGNER
 RUPINDER GILL

FUNCTIONAL SUPERVISOR
 STEVEN BLOCK

DATE PLOTTED => 28-FEB-2014
 TIME PLOTTED => 14:10

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 17 | 40 |

R. P. Gill 2-24-14
 REGISTERED ELECTRICAL ENGINEER DATE

2-24-14
 PLANS APPROVAL DATE

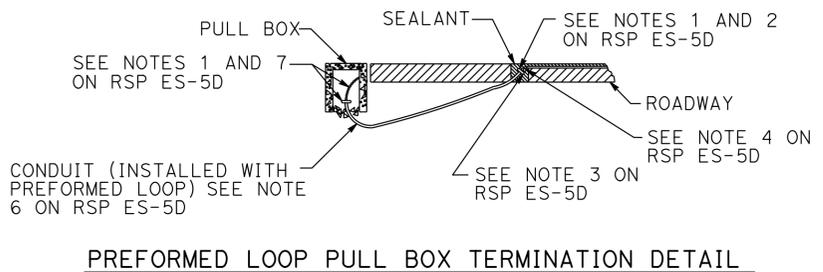
REGISTERED PROFESSIONAL ENGINEER
 RUPINDER PAL GILL
 No. 16642
 Exp. 06-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

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

MODIFIED CONDUIT AND CONDUCTOR SCHEDULE

| CONDUCTOR TYPE | DESIGNATION | CONDUIT RUN | | | | |
|----------------|-----------------|-------------|------|------|------|--------|
| | | △1 | △2 | △3 | △4 | △5 |
| #14 AWG | ∅1 | | | 3 | | 3 |
| | ∅2 | 3 | 3 | 3 | | 3 |
| | ∅4 | | 3 | 3 | | 3 |
| | ∅5 | 3 | 3 | 3 | 3 | 6 |
| | ∅6 | | | | 3 | 3 |
| | ∅8 | | | | | 3 |
| | SPARES | 3 | 3 | 3 | 3 | 6 |
| | ∅2P | 2 | 2 | 2 | | 2 |
| | ∅4P | | | 2 | | 2 |
| | ∅6P | | | | 2 | 2 |
| | ∅8P | | 2 | 2 | 2 | 4 |
| | ∅2PPB | | 1 | 1 | | 1 |
| | ∅4PPB | | | 1 | | 1 |
| | ∅6PPB | | | | 1 | 1 |
| | ∅8PPB | 1 | 1 | 1 | 1 | 2 |
| PPB COMMON | 1 | 1 | 1 | 1 | 2 | |
| PEC | | | | | | |
| TOTAL | 13 | 19 | 25 | 16 | 44 | |
| DLC | SPEED DETECTOR | | | 1 | 1 | 2 |
| | ∅1 | | | | 1 | 1 |
| | ∅2 | | | 3 | | 3 |
| | ∅4 | | | | | *4 |
| | ∅5 | | | 1 | | 1 |
| | ∅6 | | | | 3 | 3 |
| | ∅8 | | 3 | 3 | | 3 |
| TOTAL | | 3 | 8 | 5 | 16 | |
| #10 AWG | SIGNAL COMMON | 1 | 1 | 1 | 1 | |
| | LIGHTING | 2 | 2 | 2 | | |
| | FLASHING BEACON | | | 4 | 4 | |
| #8 AWG | CONTROLLER | | | | | 2 |
| CONDUIT SIZE | | 2" C | 2" C | 3" C | 2" C | 2-3" C |

* EXISTING 3 DLC, ADD 1 DLC FOR MODIFY SIGNAL, SEE SHEET E-2



(ROUTE 99 AND GARNER LANE)

ELECTRICAL DETAILS

APPROVED FOR ELECTRICAL WORK ONLY

E-4

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | Butt | 99 | R37.2/44.4 | 18 | 40 |

R. P. Gill 2-24-14
REGISTERED ELECTRICAL ENGINEER DATE

2-24-14
PLANS APPROVAL DATE

RUPINDER PAL GILL
No. 16642
Exp. 06-30-14
ELECTRICAL

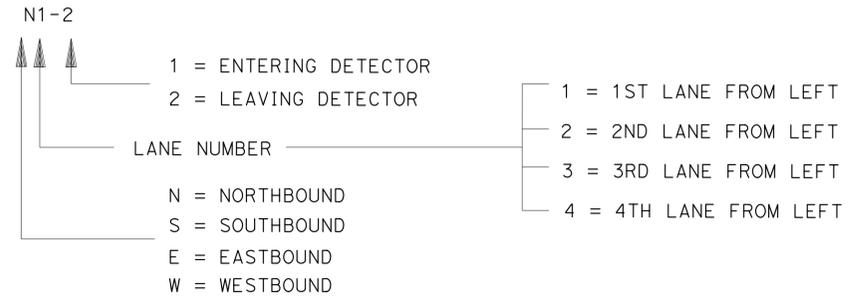
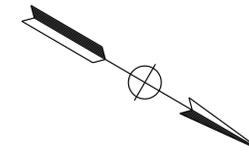
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

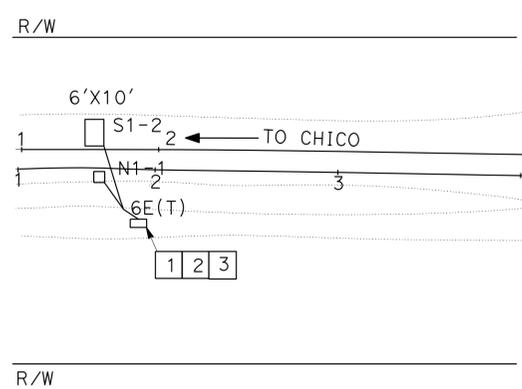
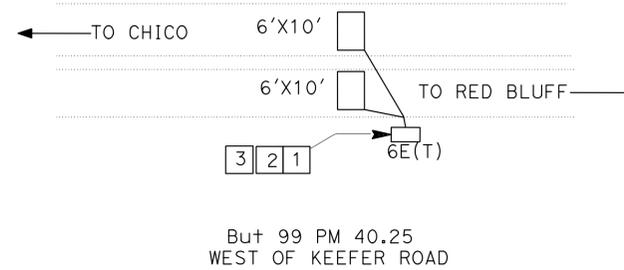
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- FOR EXACT LOCATION OF THE DETECTOR LOOPS, CONTACT CENSUS AT (530) 218-1931 FORTY-EIGHT HOURS PRIOR TO INSTALLATION.

LEGEND (THIS SHEET ONLY):

- TRAFFIC PB WITH COVER NOT WELDED.
- COIL 10' LOOP CONDUCTOR INSIDE THE PB.
- INSTALL PB A MINIMUM OF 30' FROM ETW.

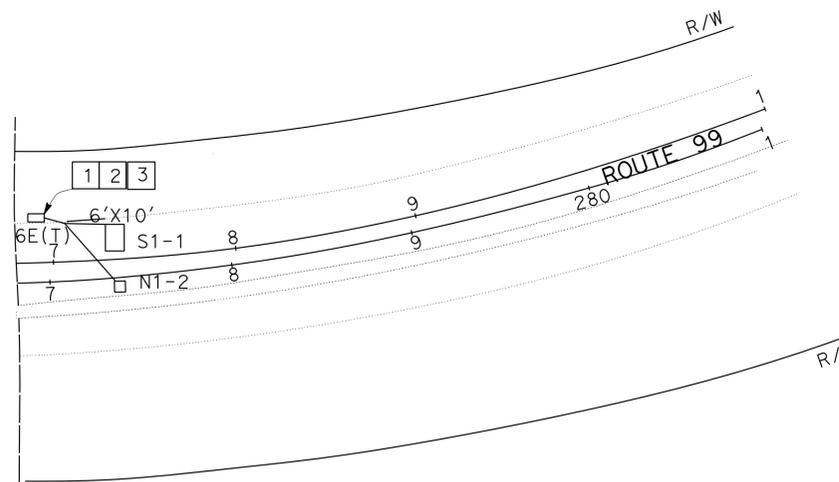


DETECTOR IDENTIFICATION



SEE SHEET E-2
FOR SIGNAL

But 99 PM 37.5
GARNER LANE



TRAFFIC MONITORING STATION (COUNT)

NO SCALE

E-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
STEVEN BLOCK

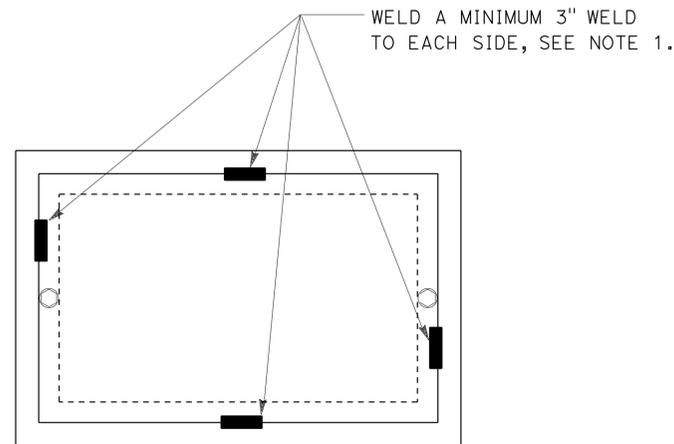
REVISOR
ZAHRA NIKNAFS
RUPINDER GILL

DESIGNED BY
CHECKED BY

REVISOR
DATE

| | | | | | |
|---|--------|-------|--------------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 19 | 40 |
| | | | <i>R. P. Gill</i> | 2-24-14 | |
| | | | REGISTERED ELECTRICAL ENGINEER | DATE | |
| | | | 2-24-14 | | |
| | | | PLANS APPROVAL DATE | | |
| | | | | | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | |

| | | | | |
|--|-----------------------|------------------------|---------------|------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | REVISOR | DATE |
| Caltrans ELECTRICAL DESIGN | STEVEN BLOCK | CHECKED BY | ZAHRA NIKNAFS | |
| | | | RUPINDER GILL | |
| | | | | |
| | | | | |



TOP VIEW

TRAFFIC PULL BOX WELDING DETAIL

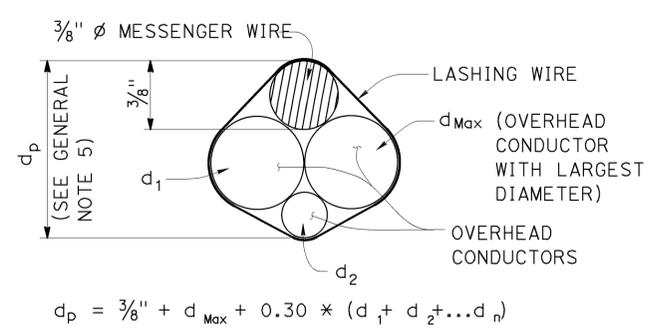
NOTES ON PULL BOXES:

1. WELDING MUST COMPLY WITH STANDARD SPECIFICATION SECTION 75.
2. CONDUITS ENTERING THE PULL BOX MUST BE ENCASED IN PCC (3" ALL AROUND). PCC ENCASEMENT MUST EXTEND 5'-6" FROM THE PULL BOX.
3. PULL BOXES FOR ELECTROLIERS, POST AND SIGNAL STANDARDS MUST BE LOCATED WITHIN 5'-0" FROM THE STATION OF THE ADJACENT ELECTROLIER, POST OR SIGNAL STANDARD.

ELECTRICAL DETAILS

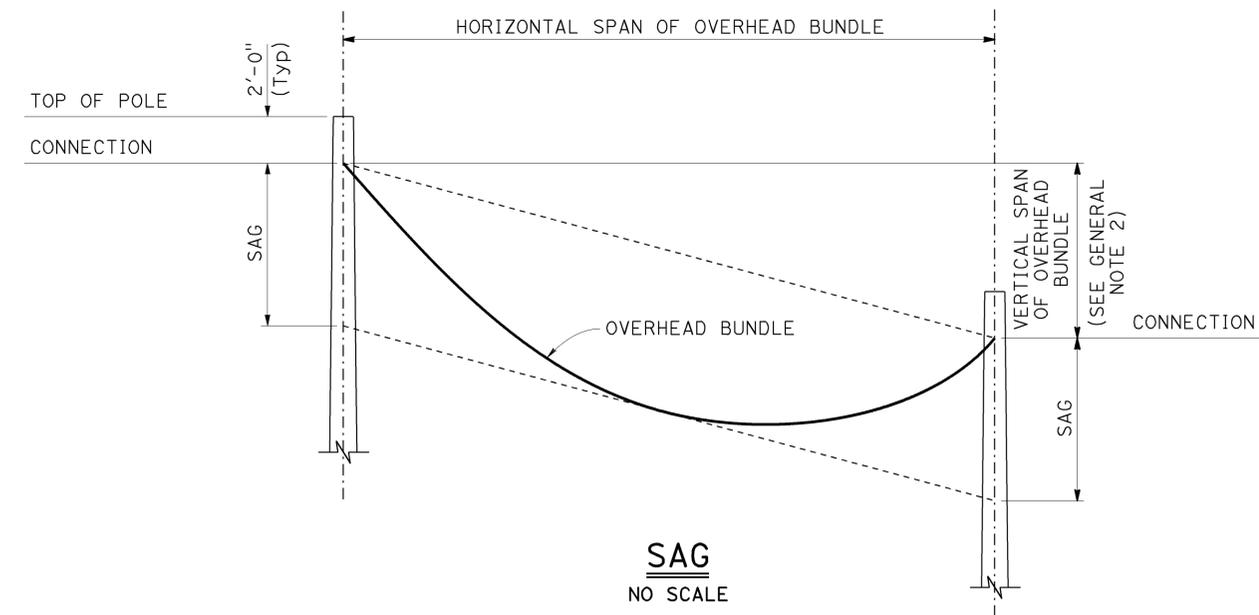
NO SCALE

LAST REVISION DATE PLOTTED => 28-FEB-2014
 01-08-14 TIME PLOTTED => 14:10



$$d_p = \frac{3}{8} + d_{Max} + 0.30 * (d_1 + d_2 + \dots + d_n)$$

PROJECTED DEPTH OF OVERHEAD BUNDLE, (d_p)



Design: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Fifth Edition (LTS-5).

GROUP LOAD COMBINATIONS:

- I Dead Load
- II Dead Load + Wind Load
- III Dead Load + 0.5 (Wind Load) + Ice Load
- IV Fatigue: Not used

LOADING:

Wind Loading: 100 mph (3-second gust)
 Wind Recurrence Interval: 10 years
 Combined height, exposure, and elevated terrain factor = 1.05
 (Exposure C, structure is not located on or over the top half of a ridge, hill, or escarpment)

Ice Loading: 3.0 psf on surfaces, 0.60 in radial thickness of ice at a unit weight of 60 pcf on overhead bundles

BASIC DESIGN VALUES:

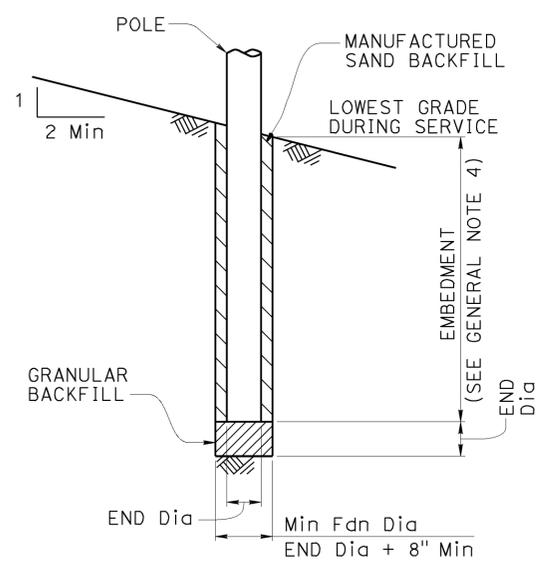
Timber Poles: $F_b = 1850$ psi
 $F_v = 110$ psi
 $F_{cp} = 230$ psi
 $F_c = 950$ psi
 $E = 1500 \times 10^3$ psi

DESIGN WIRE BREAKING STRENGTHS:

ASTM A475, Utilities Grade, 7 strand modified by termination efficiency factor of 0.8

FOUNDATION DESIGN NOTES:

- Pole embedment depth design is based on Broms' approximate procedure as described in Article 13.6 of AASHTO LTS-5.
- Embedment depth is calculated based on following soil parameters:
 Cohesive Soil:
 Shear strength of soil $c = 1500$ psf.
 Cohesionless Soil:
 $\phi = 30$ deg, $\gamma = 120$ pcf.
 Soil assumed to be unsaturated.
- An overload factor of 2.0 and an undercapacity factor of 0.7 were used for safety factor of 2.86.
- Allowable vertical bearing pressure at the end bearing of poles is 3000 psf at 6 feet or more embedment.



POLE FOUNDATION

GENERAL NOTES:

- The messenger wire and any combination of overhead conductors must not exceed either a self weight of 3.0 lb/ft or the maximum d_p .
- The maximum vertical span is 10% of the horizontal span.
- For poles with adjacent unbalanced horizontal spans, the shortest horizontal span must be at least 50% of the largest horizontal span.
- Add 2'-0" for slopes above 1V:4H.
- For a pole supporting multiple spans, calculate d_p for each span and use the largest value.
- Do not exceed the attachments shown.

DIAMETERS AND SELF WEIGHT OF OVERHEAD CONDUCTORS

| CONDUCTOR OR CABLE TYPE | DIAMETER d (in) | WEIGHT w (plf) |
|--|-----------------|----------------|
| 3 CONDUCTOR SIGNAL CABLE (3CSC) | 0.400 | 0.0980 |
| 5 CONDUCTOR SIGNAL CABLE (5CSC) | 0.500 | 0.1560 |
| 9 CONDUCTOR SIGNAL CABLE (9CSC) | 0.650 | 0.2760 |
| 12 CONDUCTOR SIGNAL CABLE (12CSC) | 0.800 | 0.3970 |
| 28 CONDUCTOR SIGNAL CABLE (28CSC) | 0.900 | 0.6490 |
| 1-#14 | 0.166 | 0.0235 |
| 1-#12 | 0.185 | 0.0330 |
| 1-#10 | 0.210 | 0.0476 |
| 1-#8 | 0.271 | 0.0774 |
| 1-#6 | 0.310 | 0.1130 |
| 1-#4 | 0.359 | 0.1690 |
| 1-#3 | 0.388 | 0.2080 |
| 1-#2 | 0.420 | 0.2560 |
| 1-#1 | 0.498 | 0.3340 |
| 6-CONDUCTOR SIGNAL INTERCONNECT CABLE (SIC) | 0.350 | 0.0860 |
| 12-CONDUCTOR SIGNAL INTERCONNECT CABLE (SIC) | 0.500 | 0.1440 |
| DETECTOR LEAD-IN CABLE (DLC) | 0.310 | 0.0440 |
| 12 to 48-STRAND FIBER OPTIC CABLE (48FOC) | 0.424 | 0.0600 |
| 72-STRAND FIBER OPTIC CABLE (72FOC) | 0.484 | 0.0770 |
| 96-STRAND FIBER OPTIC CABLE (96FOC) | 0.535 | 0.1050 |
| 144-STRAND FIBER OPTIC CABLE (144FOC) | 0.670 | 0.1890 |
| $\frac{3}{8}$ " ϕ MESSENGER WIRE | 0.375 | 0.2730 |
| VIVDS CABLE | 0.590 | 0.1520 |

NO SCALE

| | | | | | | | |
|--------------------------------------|-------------------------------|----------------------------|--|--|---------------------|---|--------------|
| BRANCH CHIEF DAVID NEUMANN | DESIGN BY JOEL MAGANA | CHECKED AIMAN MALAK | STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH | BRIDGE NO. N/A | TEMPORARY WOOD POLES GENERAL NOTES | SES-1 |
| | DETAILS BY BOB EDWARDS | CHECKED JOEL MAGANA | | | POST MILE VARIES | | |
| | QUANTITIES BY X | CHECKED X | | | | | |

POLE SELECTION TABLE

LEGEND

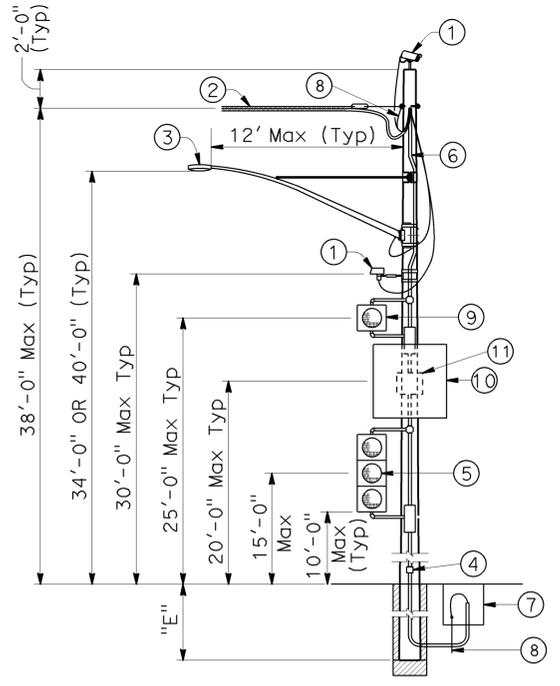
- Wood Pole No Attachments
- ^A Wood Pole with Attachments
- OH- Overhead Bundle

| OVERHEAD BUNDLE HORIZONTAL SPAN (Max) | MAXIMUM d _p | CASE 1N | | | | CASE 2N | | | | CASE 3N | | | | CASE 4N | | | | CASE 5N |
|---------------------------------------|------------------------|---------|------|------|------|---------|------|------|------|---------|------|------|------|---------|------|------|------|--------------------|
| | | 1" | 1.5" | 2.0" | 2.5" | 1" | 1.5" | 2.0" | 2.5" | 1.0" | 1.5" | 2.0" | 2.5" | 1" | 1.5" | 2.0" | 2.5" | N/A |
| 50' | MINIMUM POLE CLASS | H-1 | H-2 | H-2 | H-2 | 4 | 3 | 2 | 1 | H-2 | H-2 | H-3 | H-3 | H-4 | H-4 | H-4 | H-5 | CLASS 1 E = 10' |
| | POLE EMBEDMENT (E) | 11' | | | | 10' | | | | 11' | | | | 12' | | | | |
| 100' | MINIMUM POLE CLASS | H-2 | H-3 | H-4 | H-5 | 1 | H-1 | H-2 | H-3 | H-4 | H-5 | H-5 | H-6 | H-5 | H-5 | H-6 | | |
| | POLE EMBEDMENT (E) | 12' | | | | 11' | | | | 12' | | | | 12' | | | | |
| 150' | MINIMUM POLE CLASS | H-4 | H-5 | H-6 | | H-1 | H-2 | H-3 | H-5 | H-6 | | | | H-6 | | | | |
| | POLE EMBEDMENT (E) | 12' | | | | 12' | | | | 12' | | | | 12' | | | | |
| 200' | MINIMUM POLE CLASS | H-5 | H-6 | | | H-2 | H-3 | H-5 | | | | | | | | | | |
| | POLE EMBEDMENT (E) | 12' | | | | 12' | | | | | | | | | | | | |

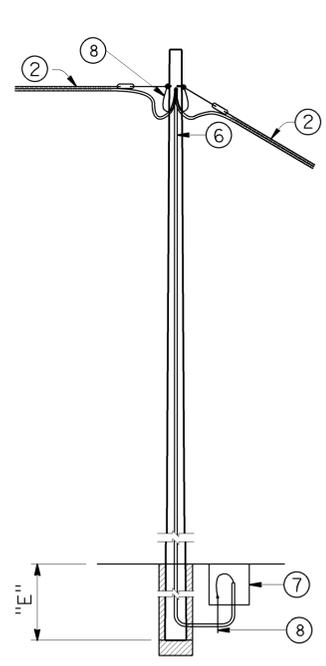
- ① CCTV camera assembly or vehicle detection system
- ② Overhead bundle consisting of a 3/8" ø messenger wire and overhead conductors and lashing wire.
- ③ Luminaire with mast arm
- ④ Pedestrian pushbutton
- ⑤ Signal face with 3 indications or single sheet sign panel (10 SQFT Max)
- ⑥ Riser with weather head as required
- ⑦ Pull box as required
- ⑧ Grounding as required
- ⑨ Single section flashing beacon or single sheet sign panel (4 SQFT Max)
- ⑩ Single sheet sign panel (4' x 4' Max) or signal face with 3 indications
- ⑪ Flashing beacon control assembly
- ⑫ NEMA 3R enclosure, 26"(W) x 56"(H) x 12"(D) Max dimensions. Max weight including batteries, 450 lbs
- ⑬ 25' SQFT Max total photovoltaic panels mounted as shown as required
- ⑭ 2-section 12" flashing beacon

NOTES:

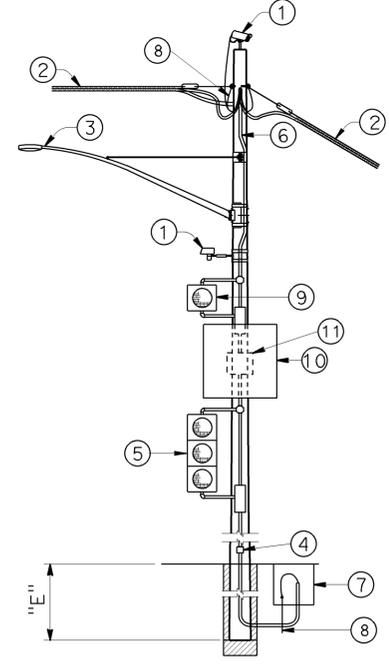
1. In addition to other restrictions on maximum horizontal span, this horizontal span must not exceed 100'.
2. Cases 1N, 3N and 4N may substitute the attachments shown in Case 5N if the photovoltaic panel is not included.



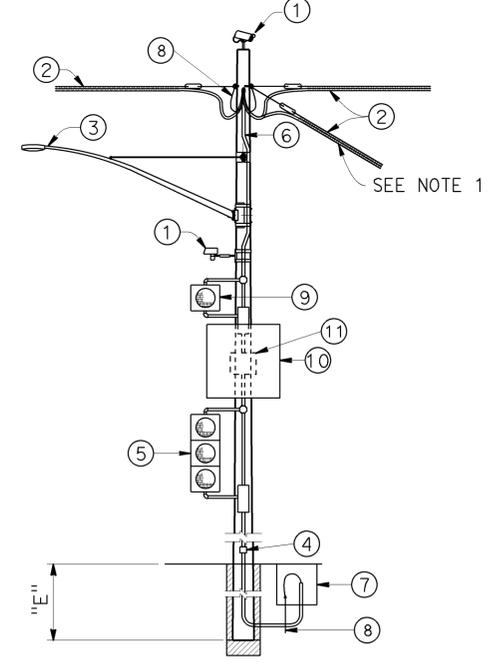
**CASE 1N
POLE AT DEAD END
WITH ATTACHMENTS**
SEE NOTE 2



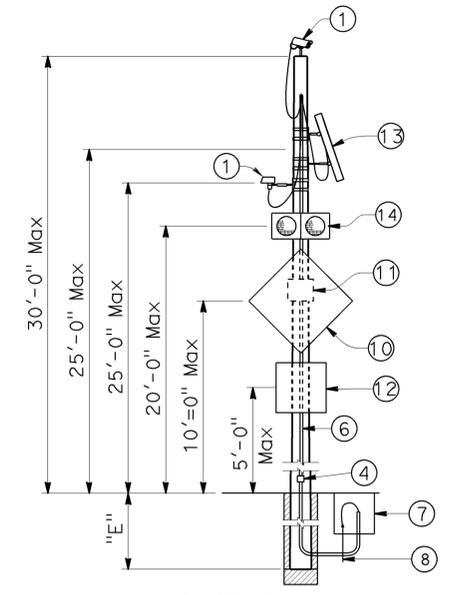
**CASE 2N
POLE AT TANGENT
WITHOUT ATTACHMENTS**



**CASE 3N
POLE AT TANGENT OR CORNER
WITH ATTACHMENTS**
SEE NOTE 2



**CASE 4N
POLE AT JUNCTION
WITH ATTACHMENTS**
SEE NOTE 2



**CASE 5N
POLE WITHOUT OVERHEAD BUNDLE
WITH ATTACHMENTS**
NO SCALE

BRANCH CHIEF DAVID NEUMANN

| | | |
|------------|----------------|---------------------|
| DESIGN | BY JOEL MAGANA | CHECKED AIMAN MALAK |
| DETAILS | BY BOB EDWARDS | CHECKED JOEL MAGANA |
| QUANTITIES | BY X | CHECKED X |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
SPECIAL DESIGN BRANCH

BRIDGE NO. N/A
POST MILE VARIES

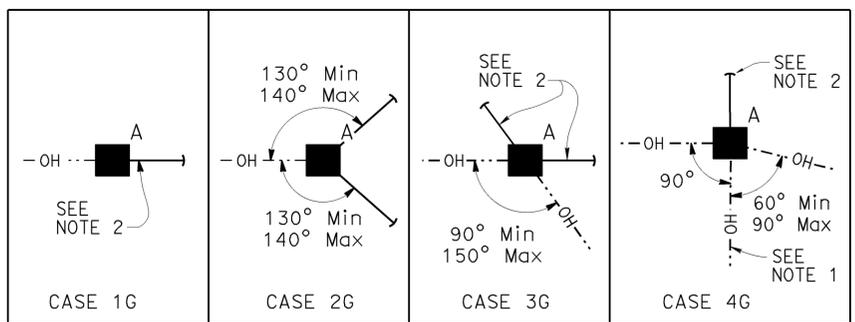
**TEMPORARY WOOD POLES
NON-GUYED - NO SIGNALS ON SPANS**

SES-2

LEGEND

- A Wood Pole with Attachments
- OH--- Overhead Bundle
- Guy Anchor

POLE SELECTION TABLE

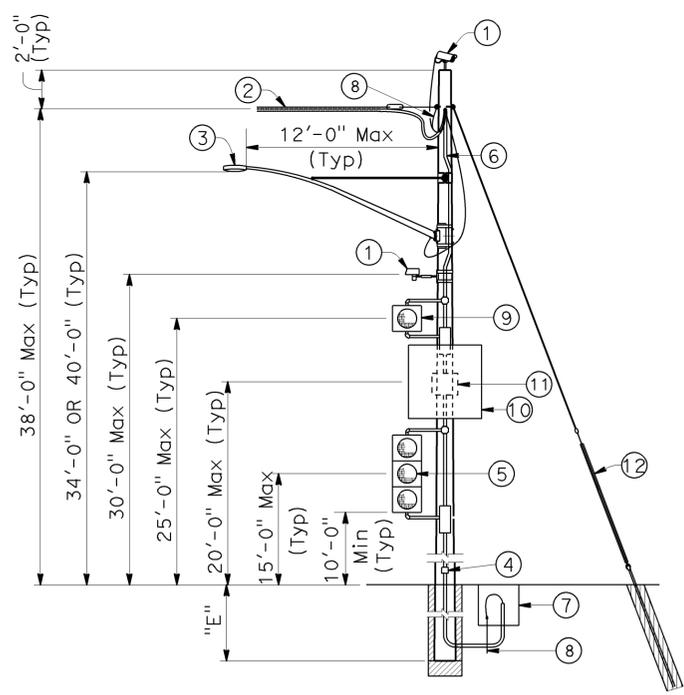


- ① CCTV camera assembly or vehicle detection system
- ② Overhead bundle consisting of a 3/8" Ø messenger wire and overhead conductors and lashing wire.
- ③ Luminaire with mast arm
- ④ Pedestrian pushbutton
- ⑤ Signal face with 3 indications or single sheet sign panel (10 SQFT Max)
- ⑥ Riser with weather head as required
- ⑦ Pull box as required
- ⑧ Grounding as required
- ⑨ Single section flashing beacon or single sheet sign panel (4 SQFT Max)
- ⑩ Single sheet sign panel (4' x 4' Max) or signal face with 3 indications
- ⑪ Flashing beacon control assembly
- ⑫ 1/2" Ø guy wire with white guy marker and strain insulator (for anchorage see "TEMPORARY WOOD POLES-DETAILS No. 2" sheet)

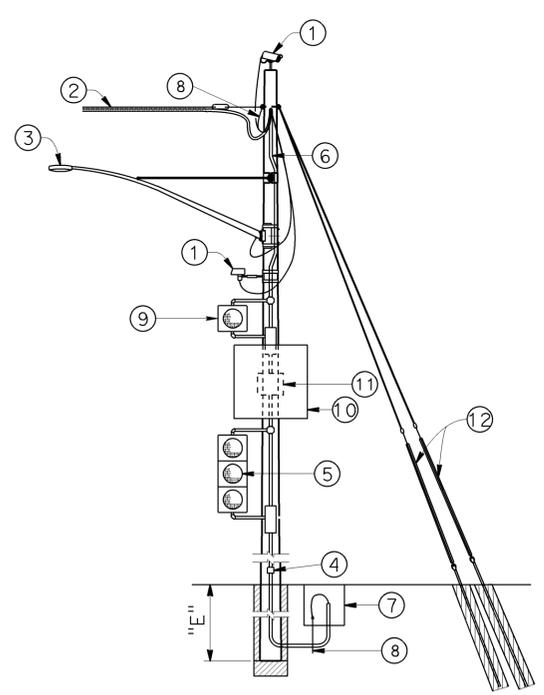
| OVERHEAD BUNDLE HORIZONTAL SPAN (Max) | MAXIMUM d _p | 1" | | | | 1.5" | | | | 2.0" | | | | 2.5" | | | |
|---------------------------------------|------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1" | 1.5" | 2.0" | 2.5" | 1" | 1.5" | 2.0" | 2.5" | 1" | 1.5" | 2.0" | 2.5" | 1" | 1.5" | 2.0" | 2.5" |
| 50' | MINIMUM POLE CLASS | H-1 | H-1 | H-2 | H-2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | H-1 | H-2 | H-2 | H-3 | H-3 |
| | POLE EMBEDMENT (E) | 10' | | | | 9' | | | | 9' | | | | 11' | | | |
| 100' | MINIMUM POLE CLASS | H-2 | H-2 | H-3 | H-4 | 1 | H-1 | H-1 | H-1 | 1 | H-1 | H-2 | H-2 | H-3 | H-3 | H-4 | H-4 |
| | POLE EMBEDMENT (E) | 11' | | | | 9' | | | | 9' | | | | 12' | | | |
| 150' | MINIMUM POLE CLASS | H-3 | H-3 | H-4 | H-5 | H-1 | H-1 | H-2 | H-2 | H-2 | H-3 | H-3 | H-3 | H-4 | H-5 | H-5 | H-6 |
| | POLE EMBEDMENT (E) | 11' | | | | 9' | | | | 9' | | | | 12' | | | |
| 200' | MINIMUM POLE CLASS | H-4 | H-4 | H-5 | H-6 | H-1 | H-2 | H-3 | H-3 | H-3 | H-3 | H-4 | H-4 | H-5 | H-6 | | |
| | POLE EMBEDMENT (E) | 11' | | | | 9' | | | | 9' | | | | 12' | | | |

NOTES:

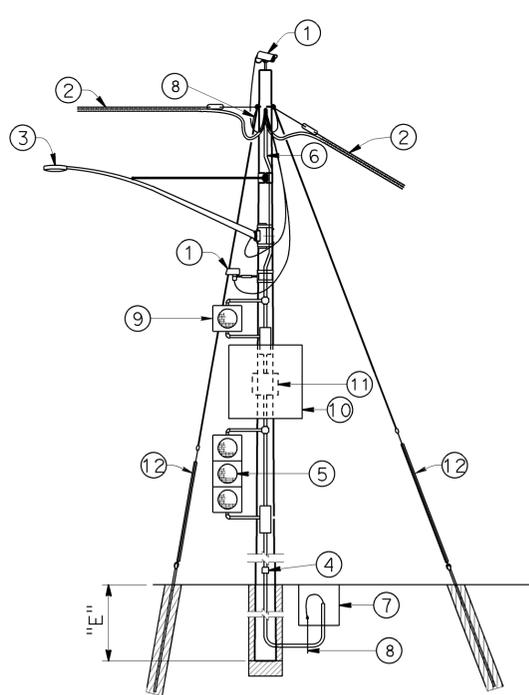
1. In addition to other restrictions on maximum horizontal span, this horizontal span must not exceed 100'.
2. Guy wire in line with opposing span ± 5°.



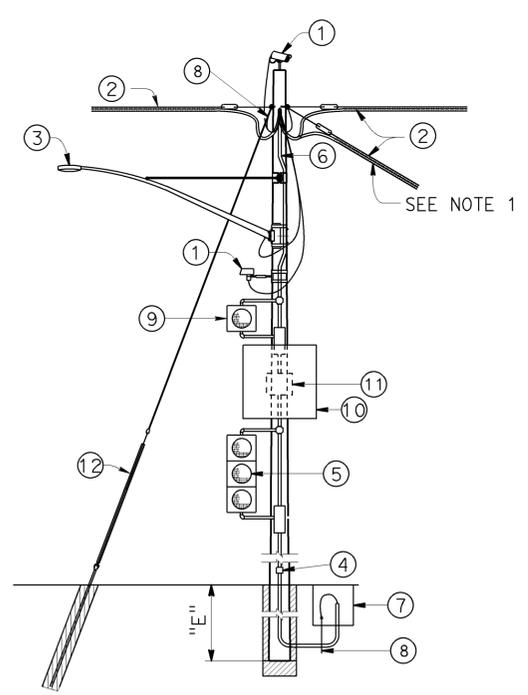
**CASE 1G
POLE AT DEAD END
WITH ATTACHMENTS**



**CASE 2G
POLE AT DEAD END
WITH ATTACHMENTS**



**CASE 3G
POLE AT CORNER
WITH ATTACHMENTS**



**CASE 4G
POLE AT JUNCTION
WITH ATTACHMENTS**

BRANCH CHIEF DAVID NEUMANN

| | | |
|------------|----------------|---------------------|
| DESIGN | BY JOEL MAGANA | CHECKED AIMAN MALAK |
| DETAILS | BY BOB EDWARDS | CHECKED JOEL MAGANA |
| QUANTITIES | BY X | CHECKED X |

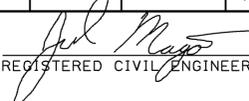
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

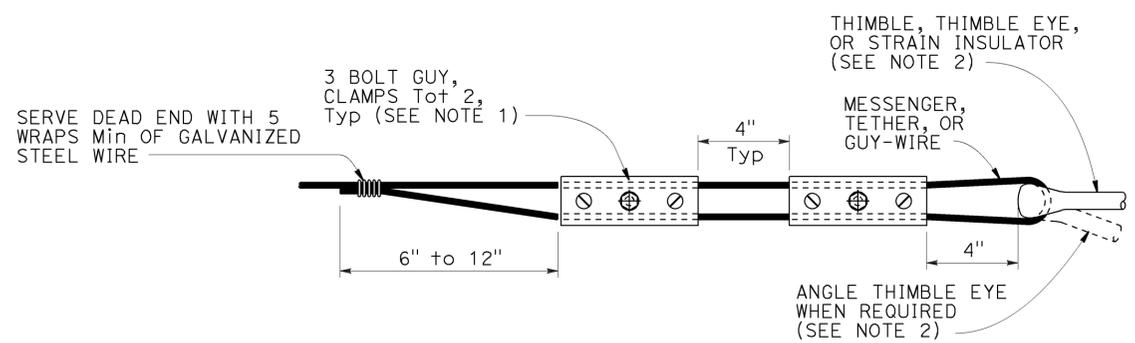
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
SPECIAL DESIGN BRANCH

BRIDGE NO. N/A
POST MILE VARIES

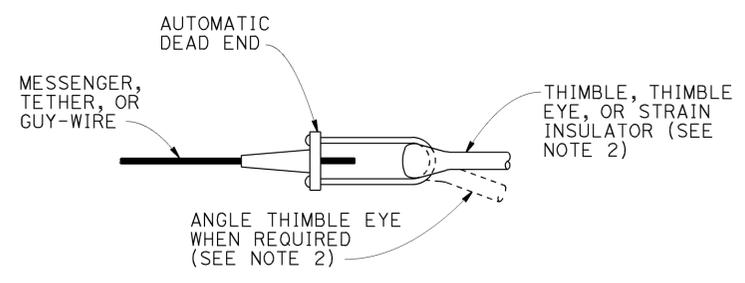
**TEMPORARY WOOD POLES
GUYED - NO SIGNALS ON SPANS**

SES-3

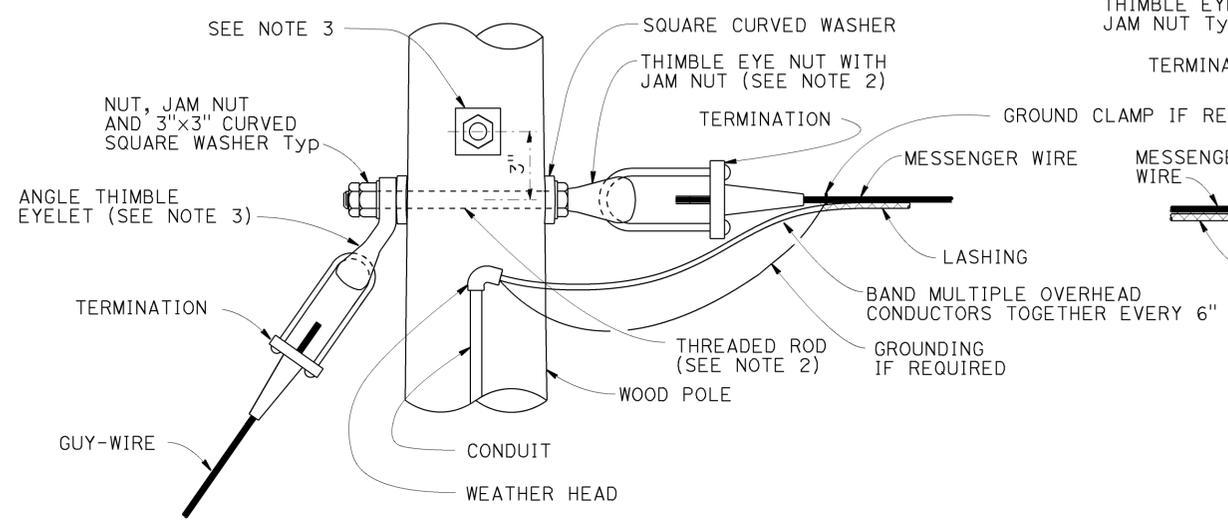
| | | | | | |
|--|--------|-------|---|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 24 | 40 |
|  REGISTERED CIVIL ENGINEER DATE 7-31-13 | | | PLANS APPROVAL DATE 2-24-14 | | |
| No. C61500 Exp. 6/30/15 CIVIL | | | REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA | | |
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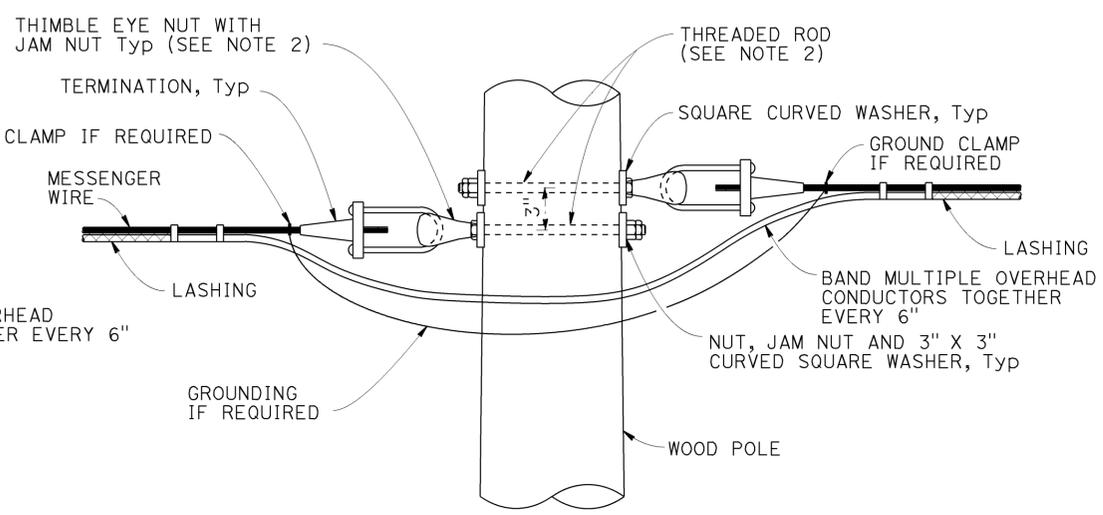
ALTERNATIVE TERMINATION OF MESSENGER WIRES USING GUY CLAMPS



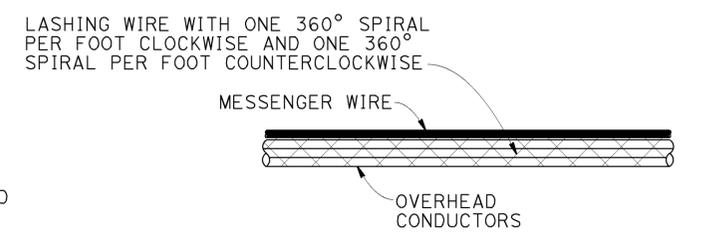
TERMINATION OF WIRES USING AUTOMATIC DEAD END



POLE AT DEAD END WITH GUY-WIRE CONNECTION

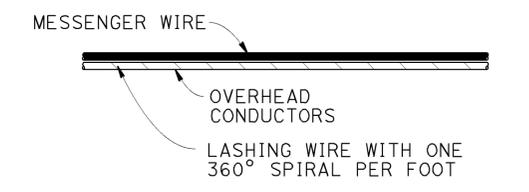


POLE AT TANGENT OR CORNER CONNECTION



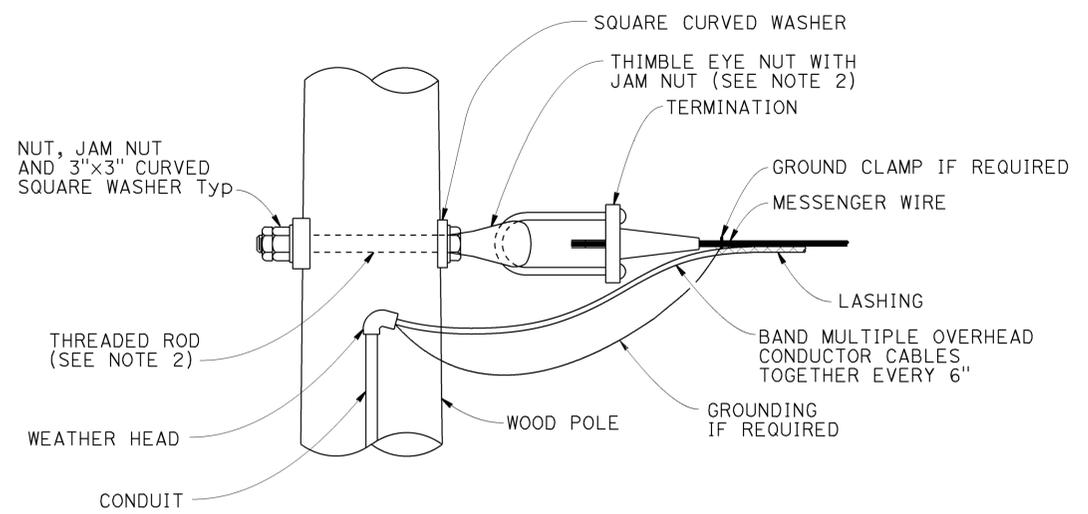
DOUBLE LASHING DETAIL

USE IF d_b IS GREATER THAN 1/2"

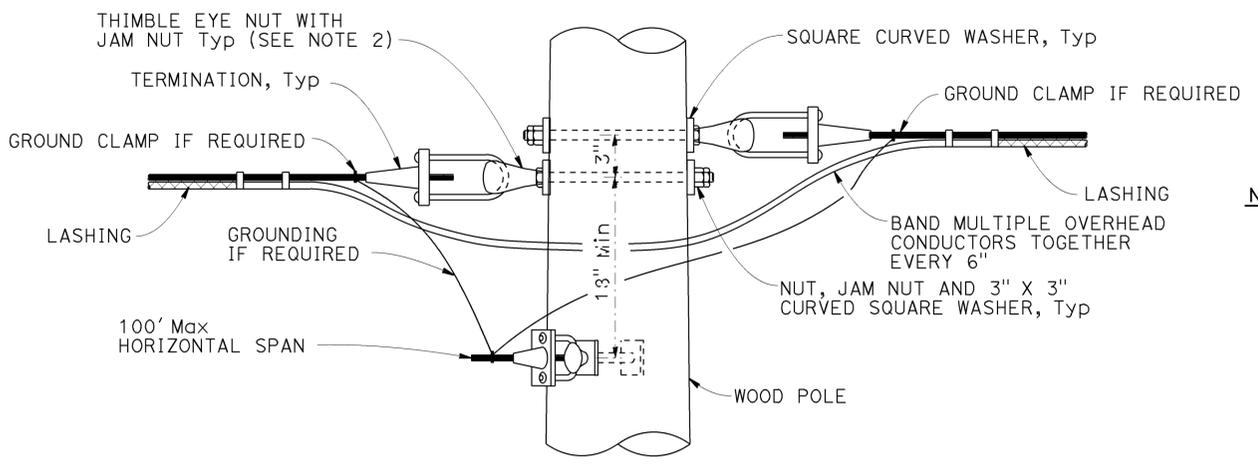


TYPICAL LASHING DETAIL

USE IF d_b IS 1/2" OR LESS



POLE AT DEAD END CONNECTION



POLE AT JUNCTION CONNECTION

NOTES:

1. For guy wires use 3 clamps.
2. Use 5/8" ϕ except 3/4" ϕ at guyed wires
3. Install additional angle thimble eyelet at poles with two guy wires.

NO SCALE

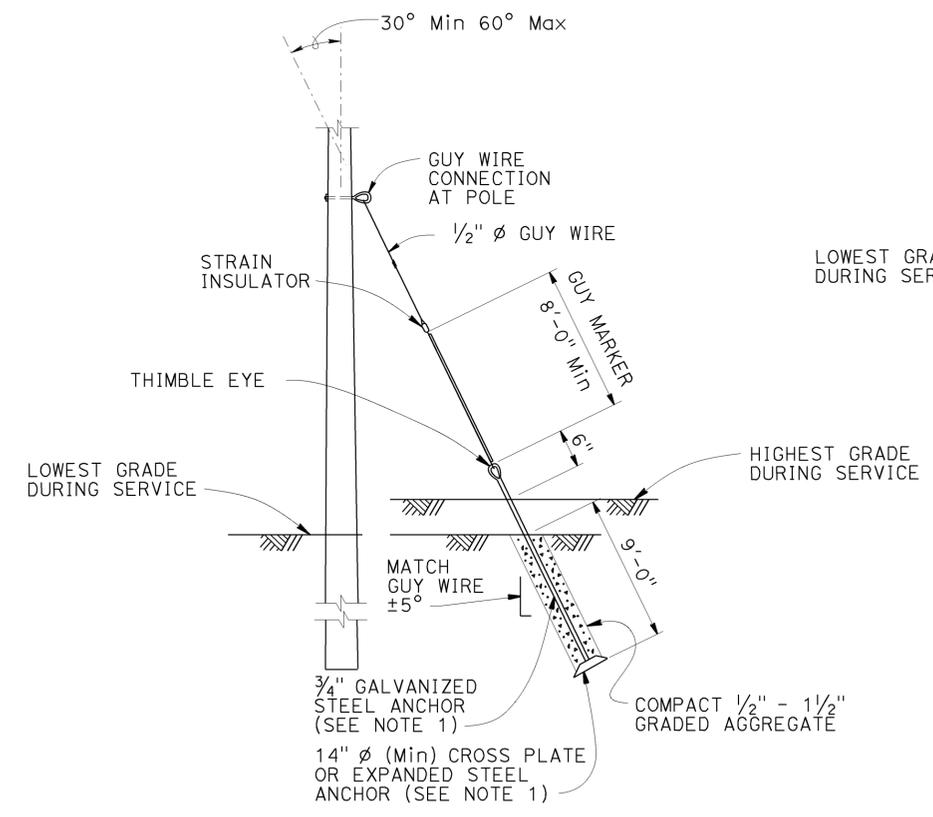
| | | | | | | | | | |
|-----------------------------------|------------|----------------|---------------------|---|---|------------|----------|---------------------------------------|-------|
| BRANCH CHIEF <u>DAVID NEUMANN</u> | DESIGN | BY JOEL MAGANA | CHECKED AIMAN MALAK | STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH | BRIDGE NO. | N/A | TEMPORARY WOOD POLES DETAILS No. 1 | SES-4 |
| | DETAILS | BY BOB EDWARDS | CHECKED JOEL MAGANA | | | POST MILE | VARIABLE | | |
| | QUANTITIES | BY X | CHECKED X | | | | | | |

| | | | | | |
|--|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 25 | 40 |
| | | | 7-31-13 | | |
| REGISTERED CIVIL ENGINEER | | | DATE | | |
| 2-24-14 | | | 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. | | | | | |



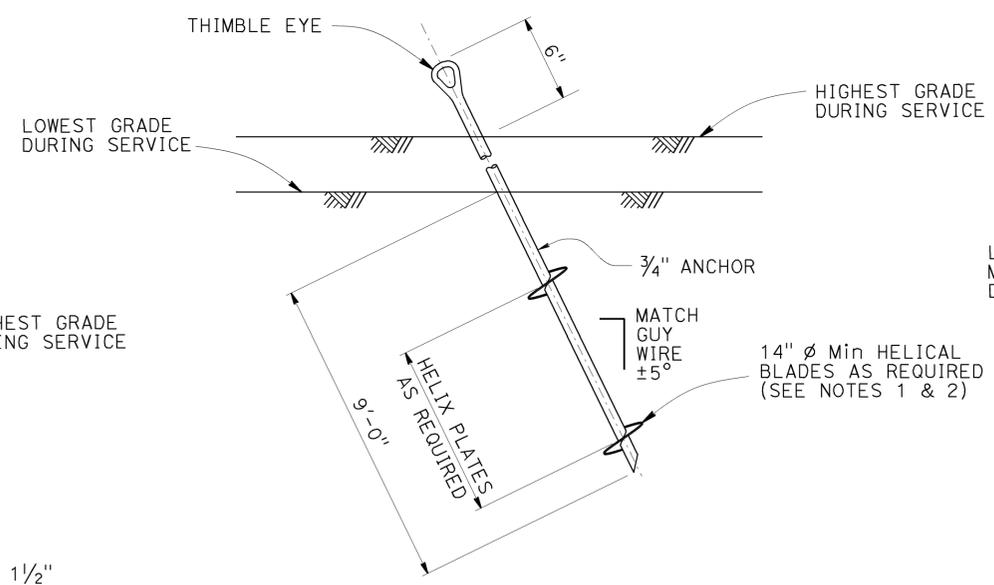
NOTES:

1. Minimum allowable tension capacity "Qa" = 8,900 lbs.
2. Minimum installation torque "T" = 1780 lbs-ft.
3. Helical anchor detail may be used in place of expanded steel anchors.

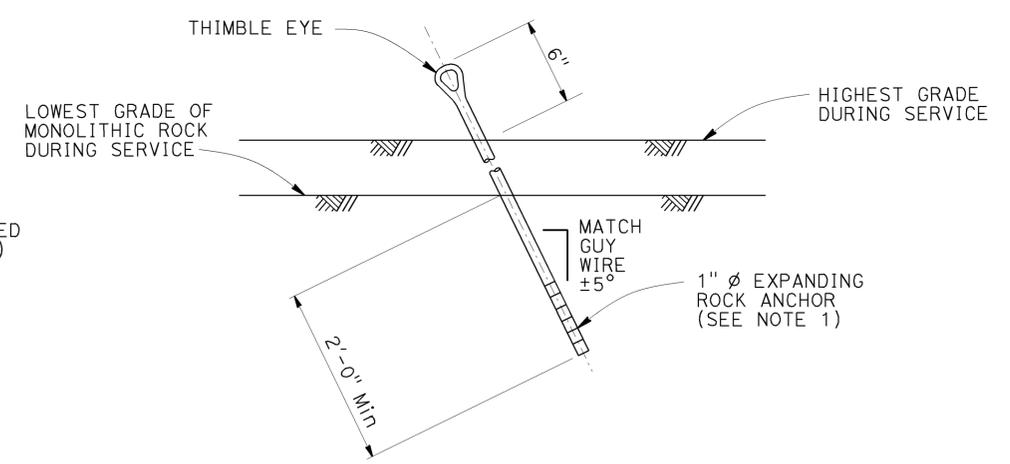


EXPANDED STEEL ANCHOR DETAIL

SEE NOTE 3



HELICAL ANCHOR DETAIL



EXPANDING ROCK ANCHOR DETAIL

NO SCALE

| | | |
|--------------|---------------|----------------|
| BRANCH CHIEF | DAVID NEUMANN | |
| | DESIGN | BY JOEL MAGANA |
| | DETAILS | BY BOB EDWARDS |

| | |
|---------|-------------|
| CHECKED | AIMAN MALAK |
| CHECKED | JOEL MAGANA |
| CHECKED | X |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
SPECIAL DESIGN BRANCH

| | |
|------------|----------|
| BRIDGE NO. | N/A |
| POST MILE | VARIABLE |

TEMPORARY WOOD POLES
DETAILS No. 2

SES-5

USERNAME => s136236 DATE PLOTTED => 24-FEB-2014 TIME PLOTTED => 16:39

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 26 | 40 |

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 2-24-14

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

REVISED STANDARD PLAN RSP A10B

| | |
|------------|--|
| | 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 |
| ℒ | STATION LINE |
| SM | SELECTED MATERIAL |
| Spec | SPECIAL, SPECIFICATIONS |
| SPP | SLOTTED PLASTIC PIPE |
| SS | SLOPE STAKE |
| SSBM | STRAP AND SADDLE BRACKET METHOD |
| SSD | STRUCTURAL SECTION DRAIN |
| SSPA | STRUCTURAL STEEL PLATE ARCH |
| SSPP | STRUCTURAL STEEL PLATE PIPE |
| SSPPA | STRUCTURAL STEEL PLATE PIPE ARCH |
| SSRP | STEEL SPIRAL RIB PIPE |
| St | STREET |
| Sta | STATION |
| STBB | SINGLE THRIE BEAM BARRIER |
| Std | STANDARD |
| Str | STRUCTURE |
| Surf | SURFACING |
| SW | SIDEWALK, SOUND WALL |
| Swr | SEWER |
| Sym | SYMMETRICAL |
| S4S | SURFACE 4 SIDES |
| | T |
| T | SEMI-TANGENT |
| Tan | TANGENT |
| TBB | THRIE BEAM BARRIER |
| Tbr | TIMBER |
| TC | TOP OF CURB |
| TCB | TRAFFIC CONTROL BOX |
| TCE | TEMPORARY CONSTRUCTION EASEMENT |
| TeI | TELEPHONE |
| Temp | TEMPORARY |
| TG | TOP OF GRADE |
| Tot | TOTAL |
| TP | TELEPHONE POLE |
| TPB | TREATED PERMEABLE BASE |
| TPM | TREATED PERMEABLE MATERIAL |
| Trans | TRANSITION |

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

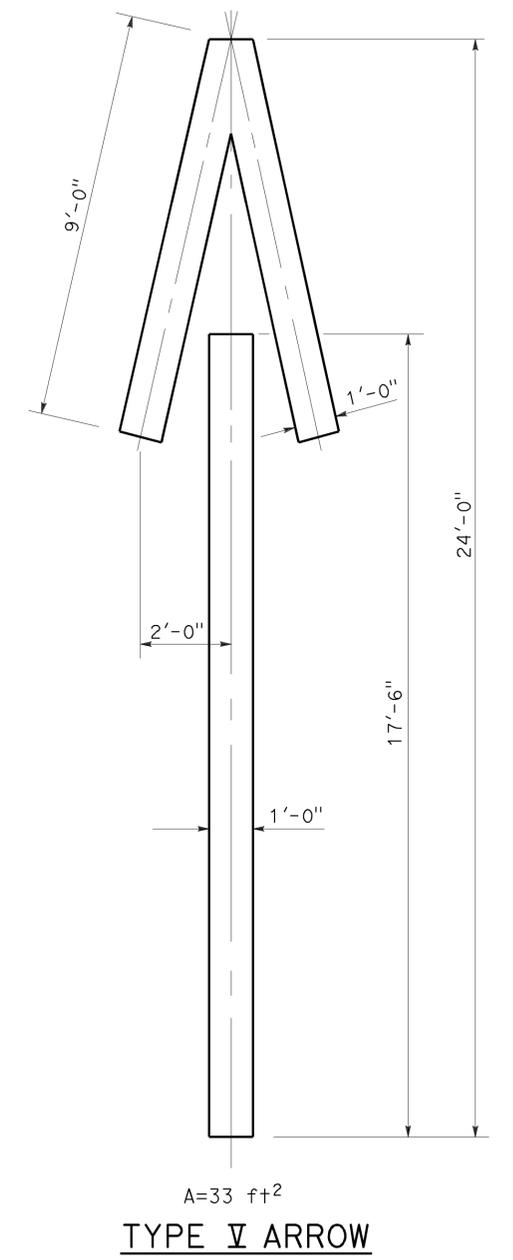
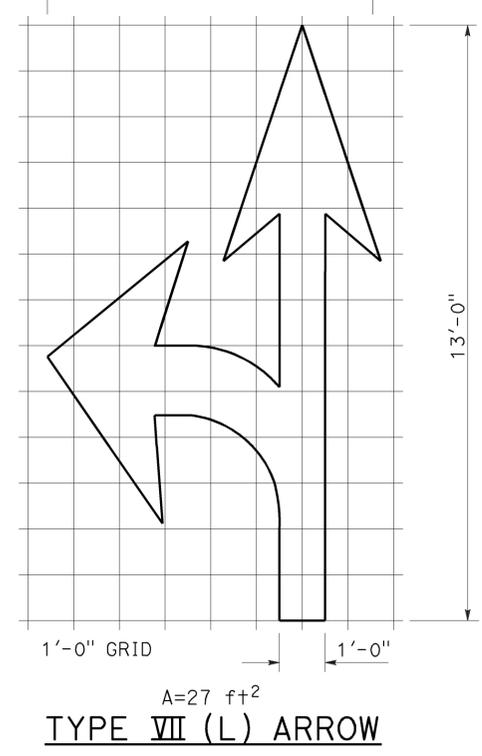
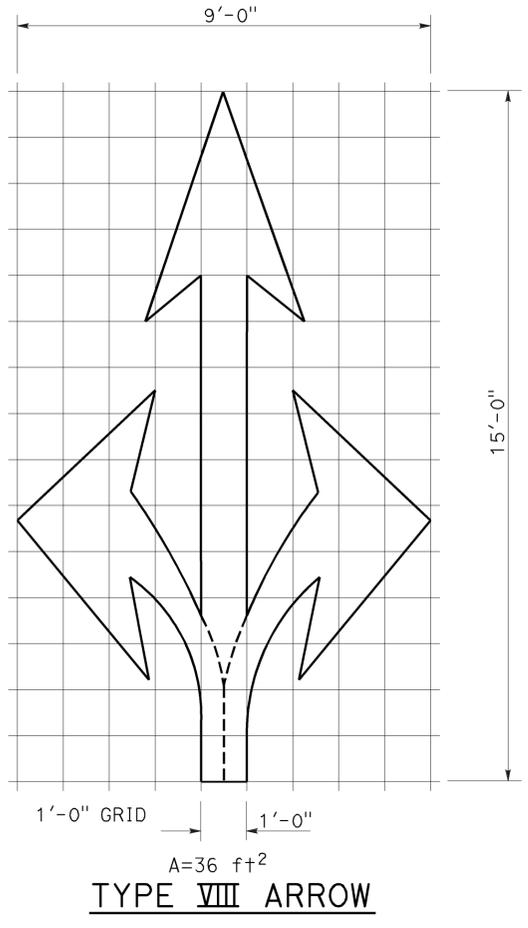
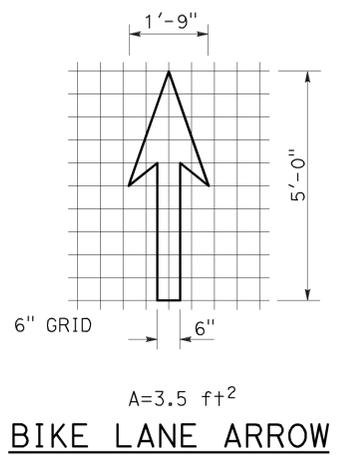
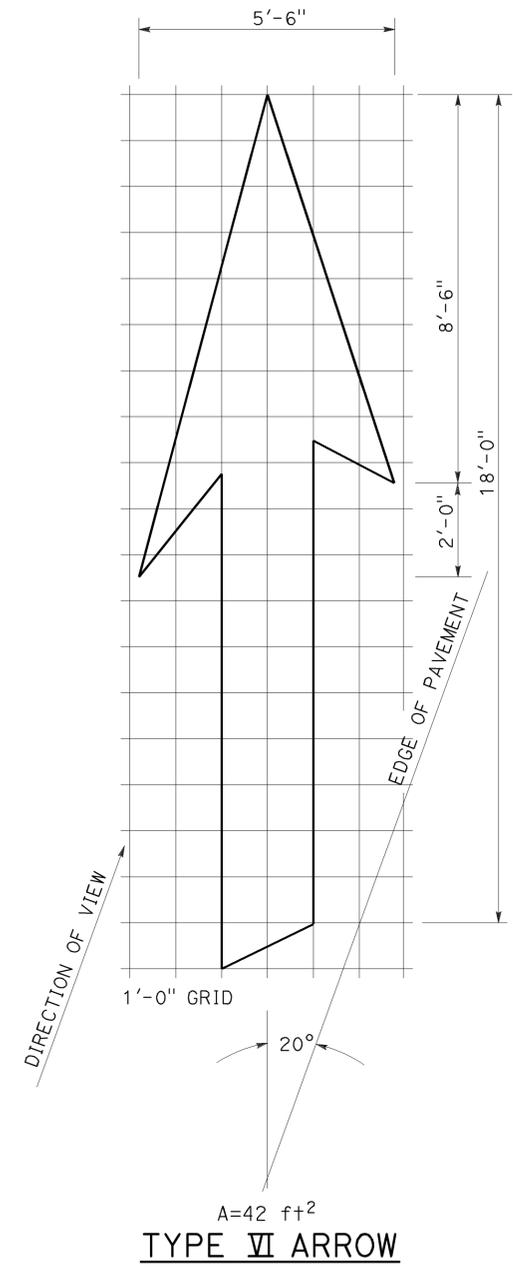
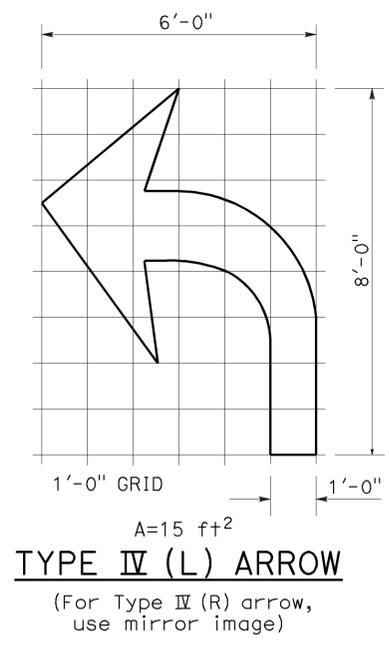
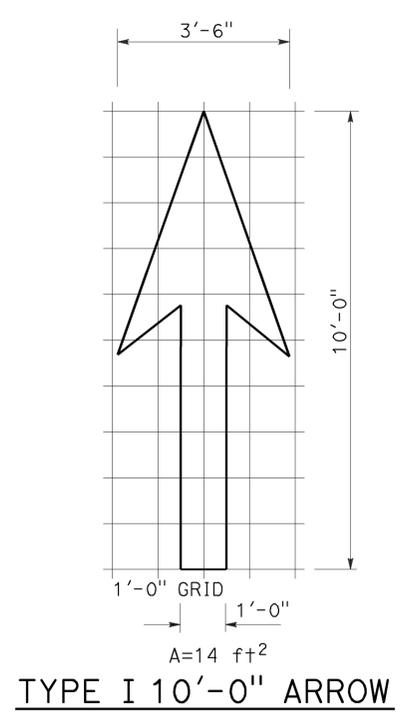
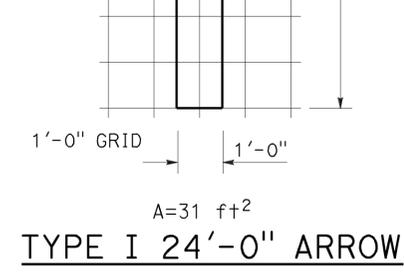
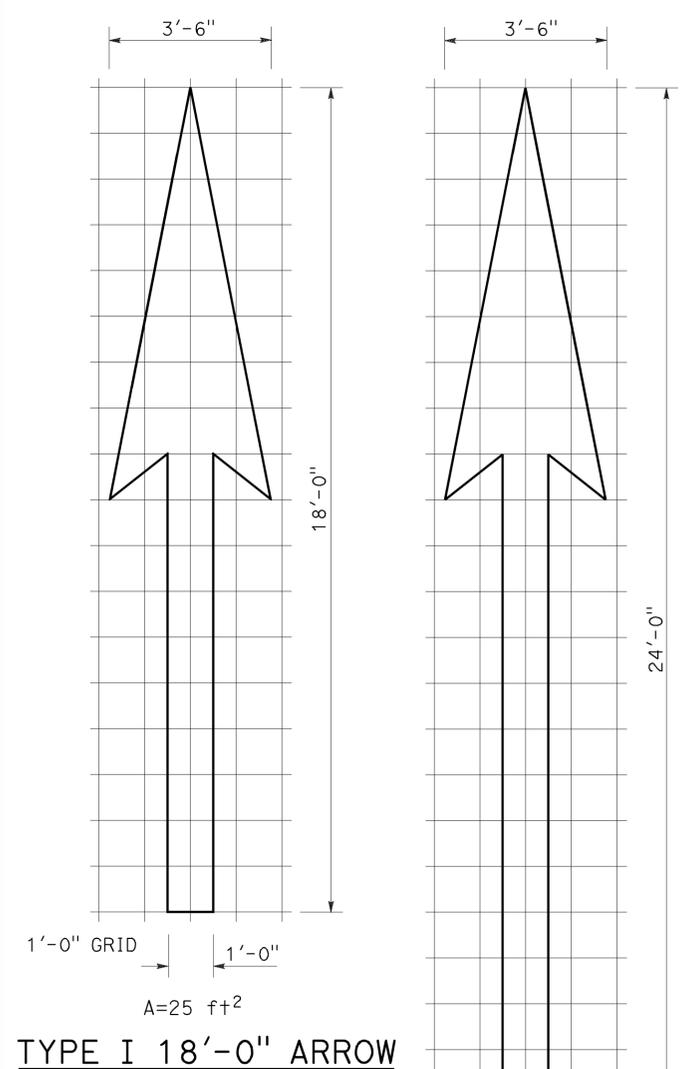
| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | Butt | 99 | R37.2/44.4 | 27 | 40 |

Registered Professional Engineer
 Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

April 20, 2012
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
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 COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-24-14



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

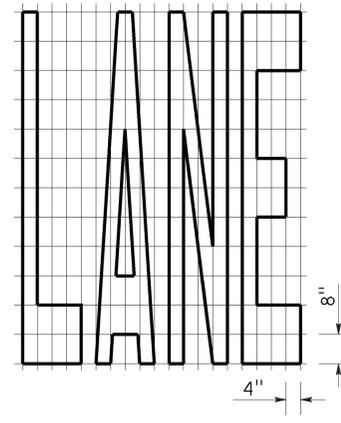
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

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

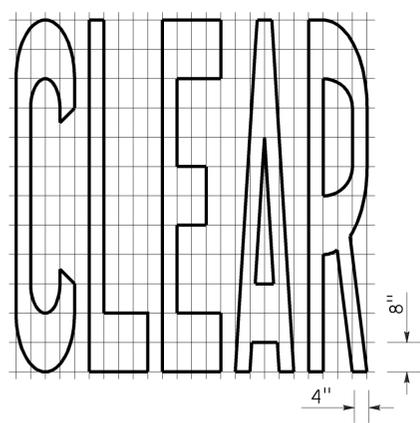
REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

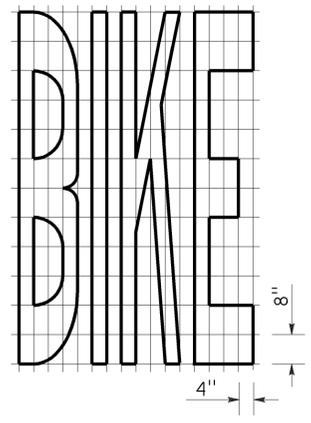
TO ACCOMPANY PLANS DATED 2-24-14



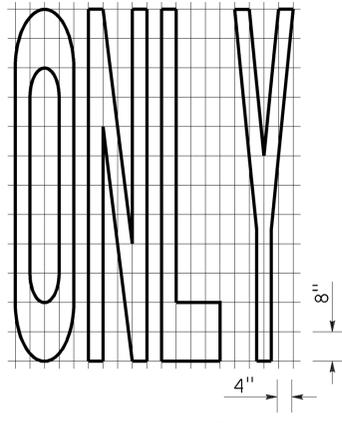
A=24 ft²



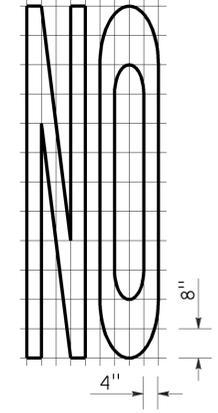
A=27 ft²



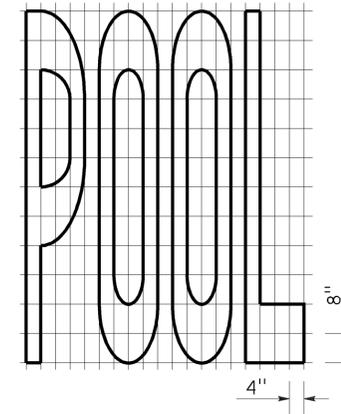
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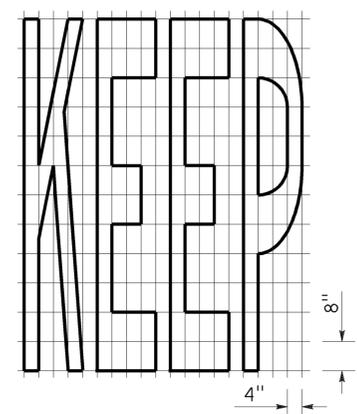
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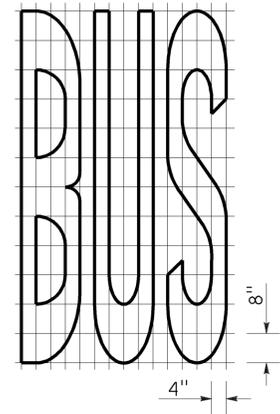
A=14 ft²



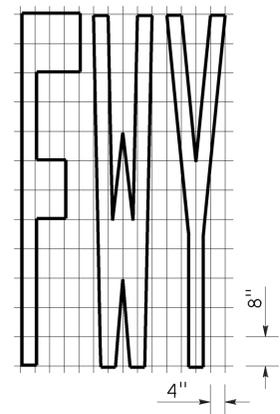
A=23 ft²



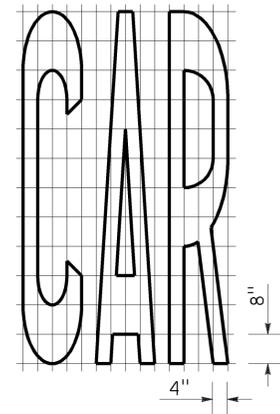
A=24 ft²



A=20 ft²

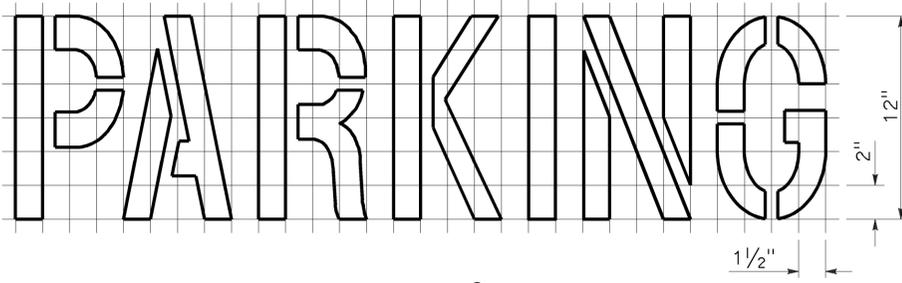
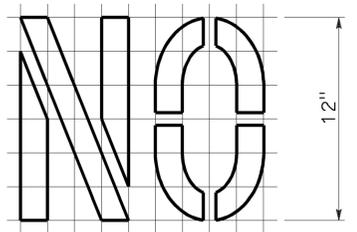


A=16 ft²

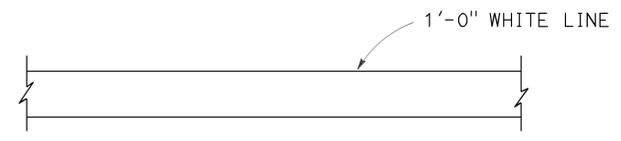


A=17 ft²

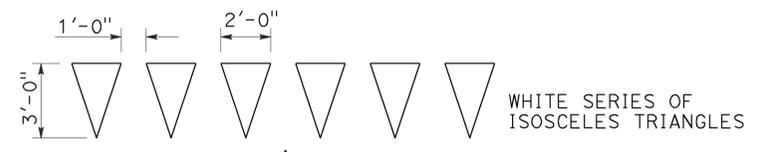
| WORD MARKINGS | | | |
|---------------|-----------------|------|-----------------|
| ITEM | ft ² | ITEM | ft ² |
| LANE | 24 | NO | 14 |
| POOL | 23 | BIKE | 21 |
| CAR | 17 | BUS | 20 |
| CLEAR | 27 | ONLY | 22 |
| KEEP | 24 | FWY | 16 |



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



DIRECTION OF TRAVEL
YIELD LINE

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES**
NO SCALE

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

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | Butt | 99 | R37.2/44.4 | 29 | 40 |

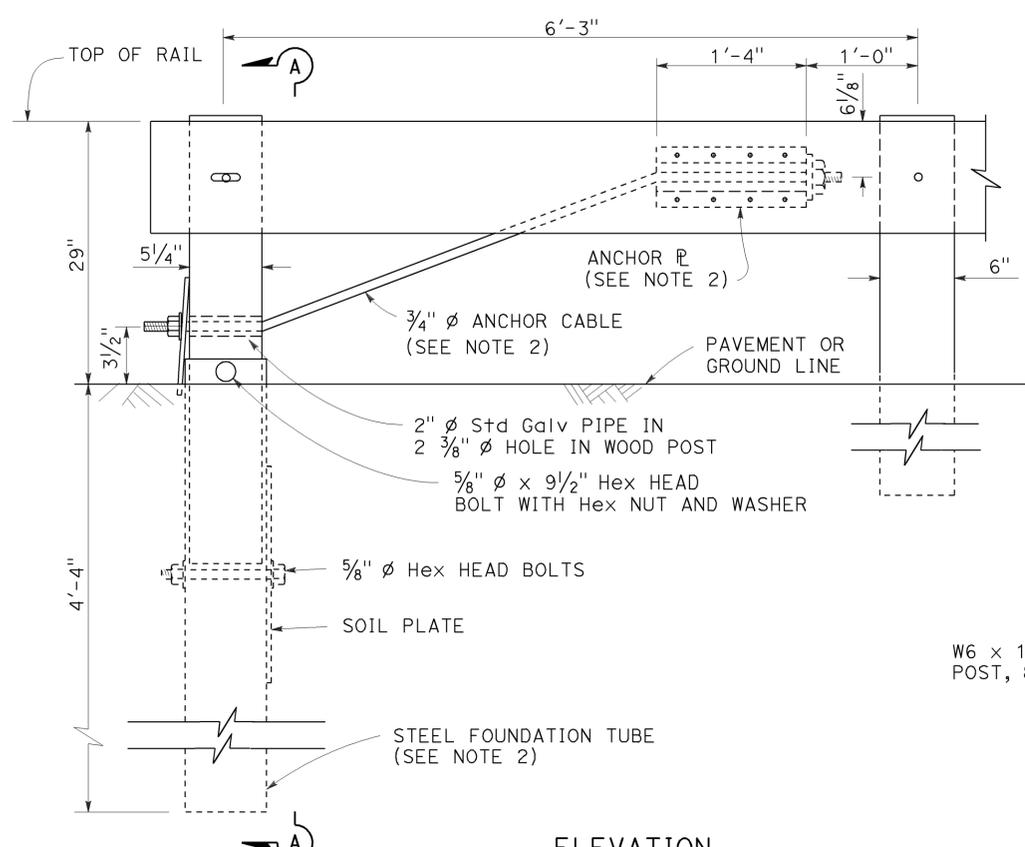
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

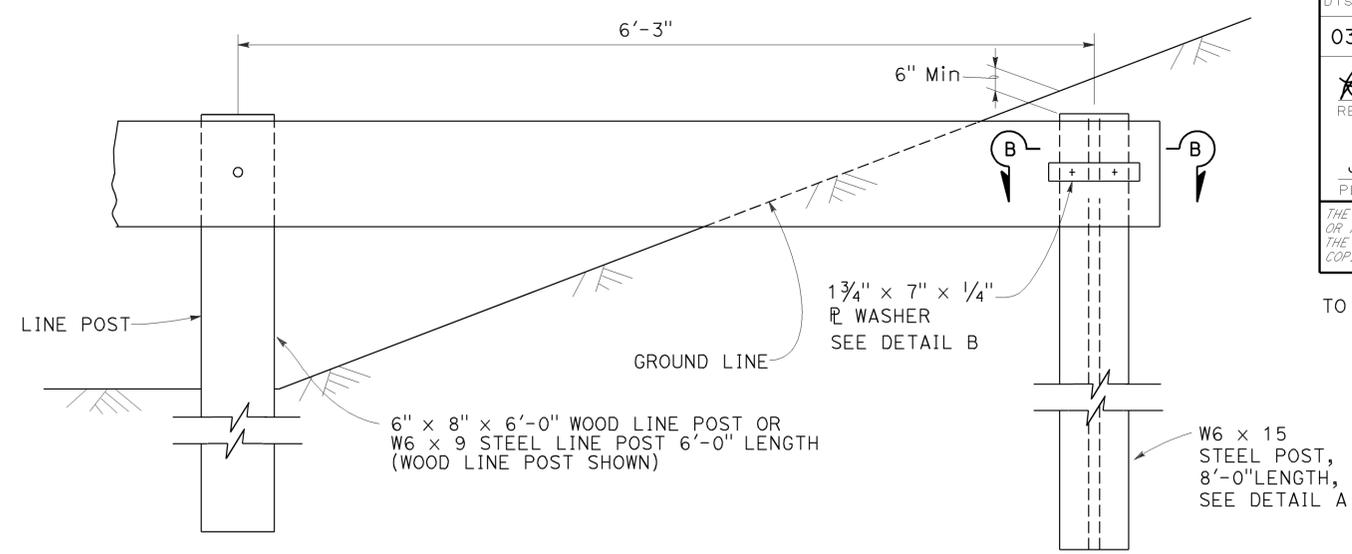
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TO ACCOMPANY PLANS DATED 2-24-14

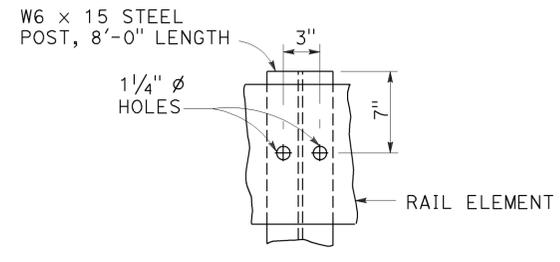
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA



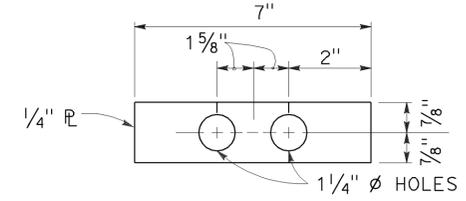
**ELEVATION
END ANCHOR
ASSEMBLY (TYPE SFT)**



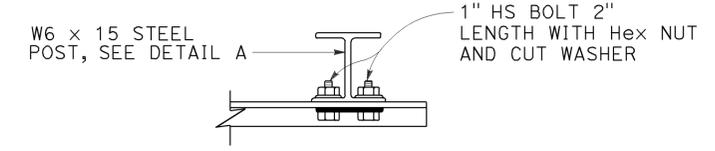
BURIED POST END ANCHOR



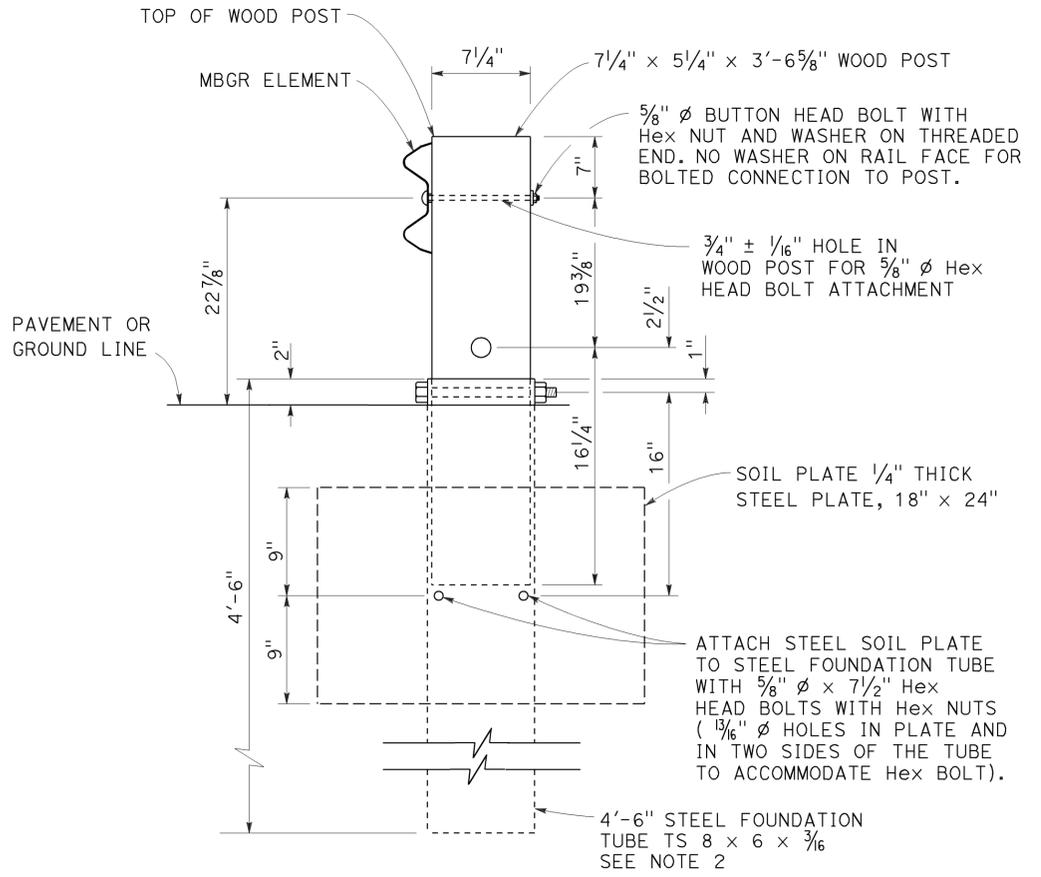
DETAIL A



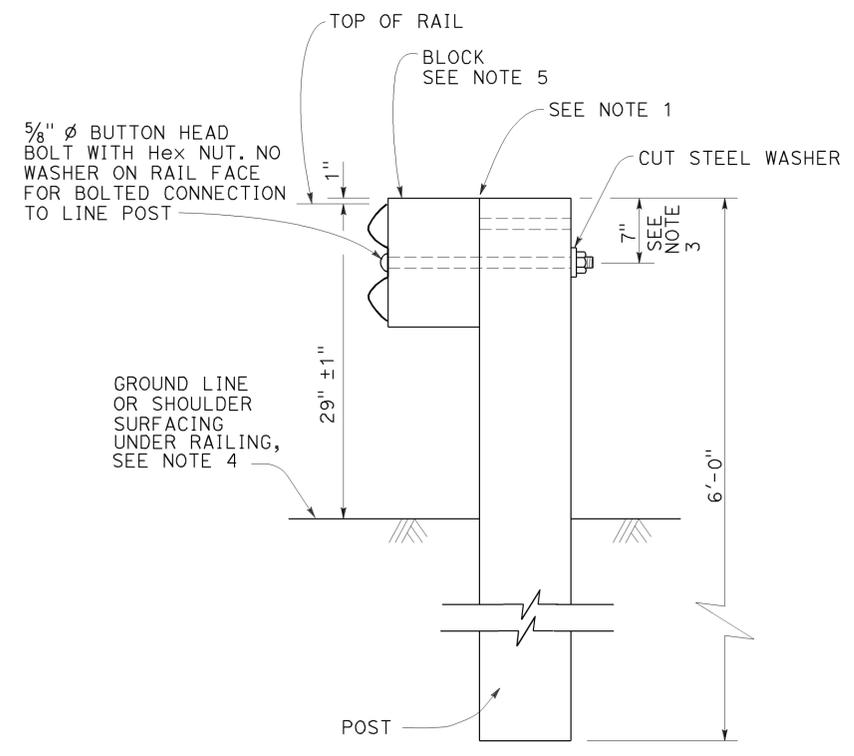
DETAIL B



SECTION B-B



SECTION A-A



**TYPICAL LINE
POST INSTALLATION**

NOTES:

1. For wood post and wood block, toenail with 2-16d Galv nails in top of block. For steel post and notched wood or plastic block, notched face of block faces steel post.
2. A 6'-0" Length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" diameter hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.
3. To connect railing to 27" terminal system end treatment, transition the top of railing height at a ratio of 120:1 to terminal system end treatment height plus one 12'-6" standard railing section at the transitioned height for a horizontal connection to the end treatment.
4. Install posts in soil.
5. See Revised Standard Plans RSP A77N1 and RSP A77N2 for details.
6. Holes excavation in the slope to construct the buried post end anchor shall be backfilled with selected earth, placed in layers approximately 1'-0" thick. Each layer shall be moistened and thoroughly compacted.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
RECONSTRUCT INSTALLATION**

NO SCALE

RSP A77L3 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L3

2010 REVISED STANDARD PLAN RSP A77L3

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 03 | But | 99 | R37.2/44.4 | 30 | 40 |

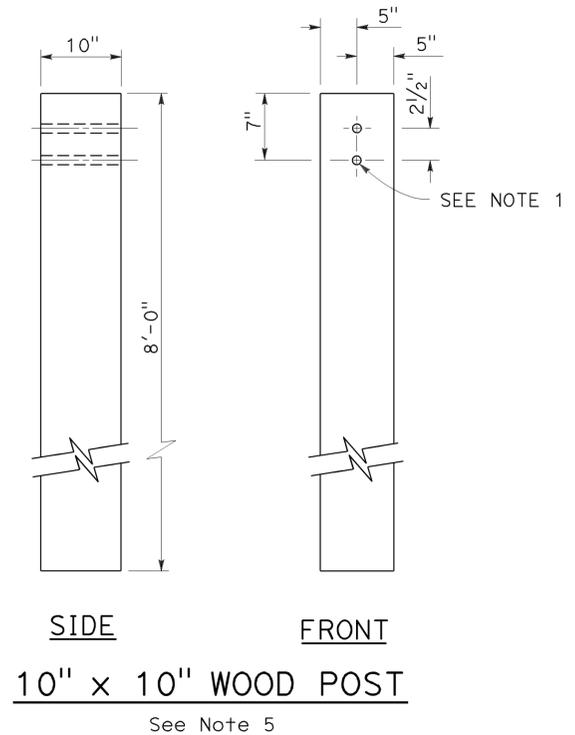
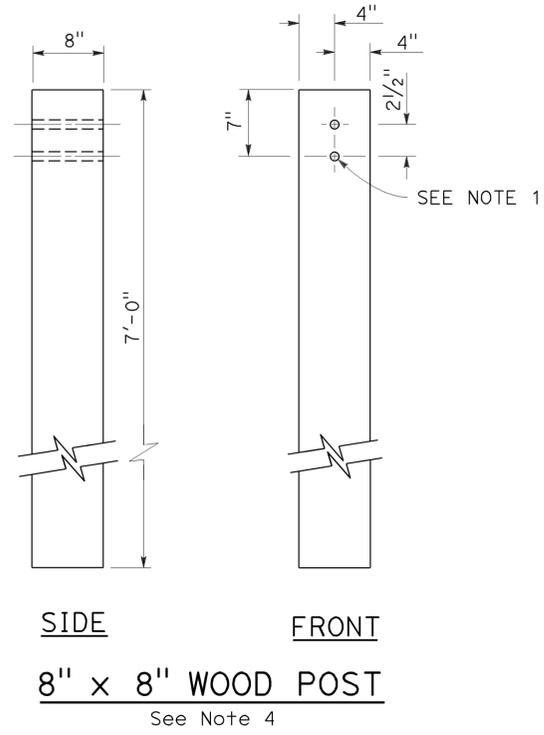
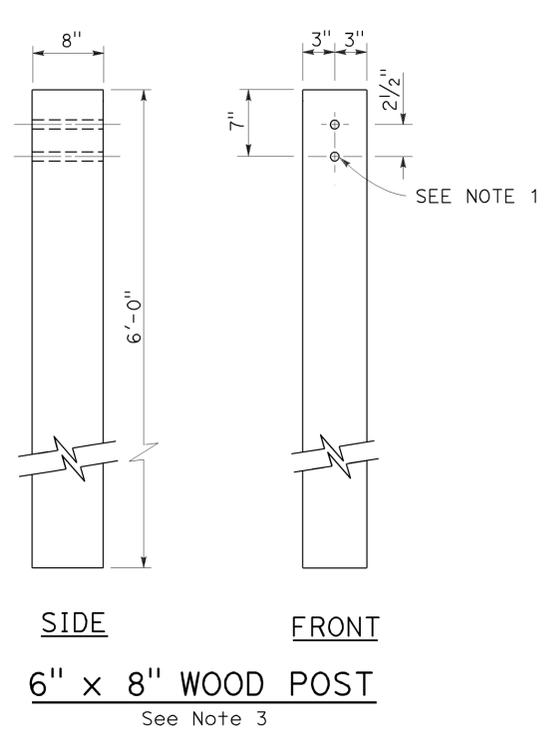
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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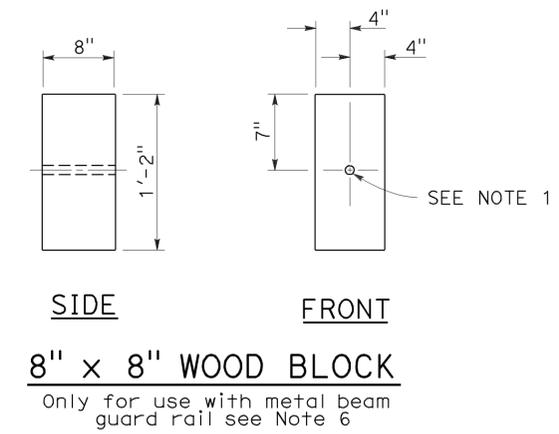
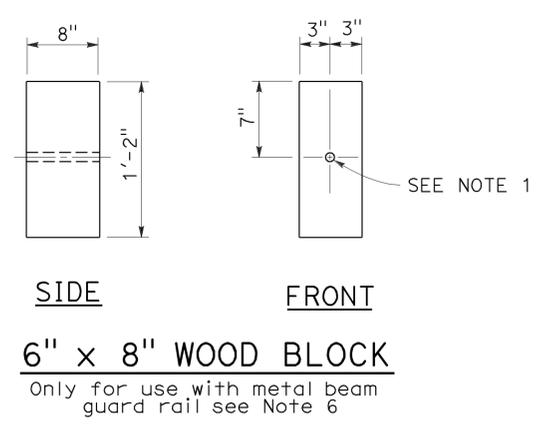
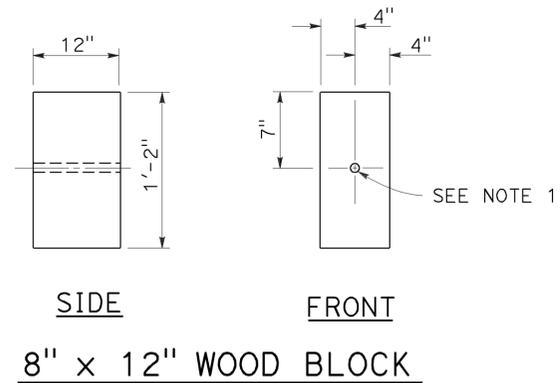
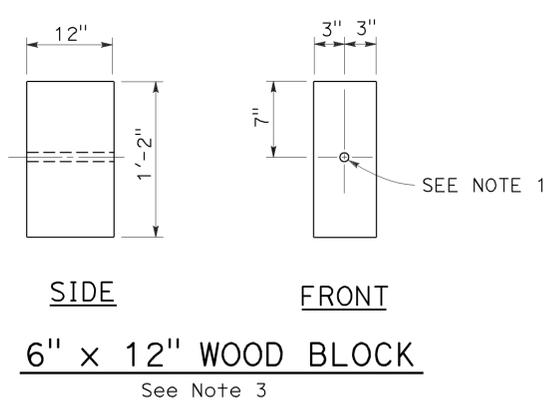
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 2-24-14



NOTES:

1. All holes in wood posts and blocks shall be $\frac{3}{4}$ " Dia \pm $\frac{1}{16}$ ".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" wood blocks.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
WOOD POST AND
WOOD BLOCK DETAILS**

NO SCALE

RSP A77N1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N1

2010 REVISED STANDARD PLAN RSP A77N1

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | Butt | 99 | R37.2/44.4 | 31 | 40 |

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

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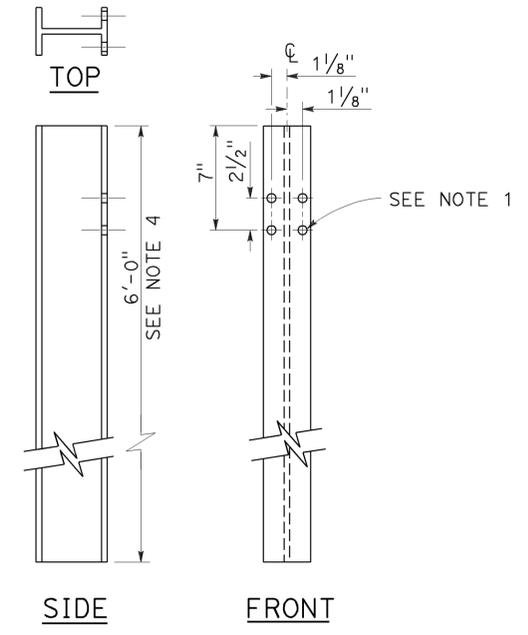
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 2-24-14

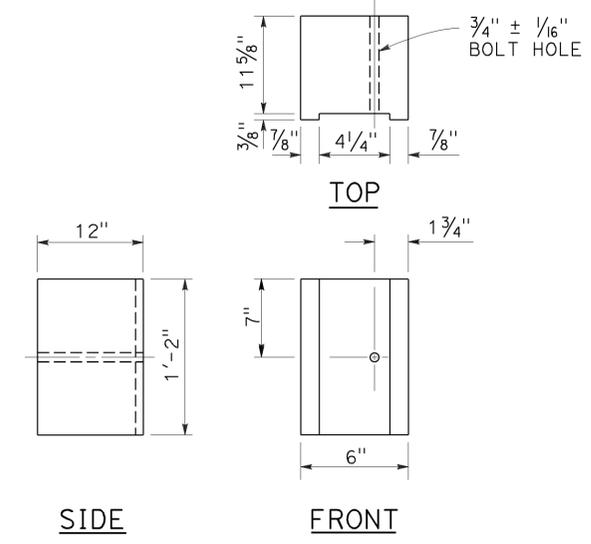
NOTES:

1. All holes in steel post shall be $\frac{13}{16}$ " Dia maximum.
2. Dimensions shown for wood block are nominal.
3. Notched face of block faces steel post.
4. 6'-0" length posts to be used for typical roadway installation. See Revised Standard Plan RSP A77N3.
5. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" notched wood blocks.
6. This post and 8" x 12" block combination to be used for line post sections of MGS on narrow roadways and where strengthened line post sections of MGS are warranted to shield fixed objects.

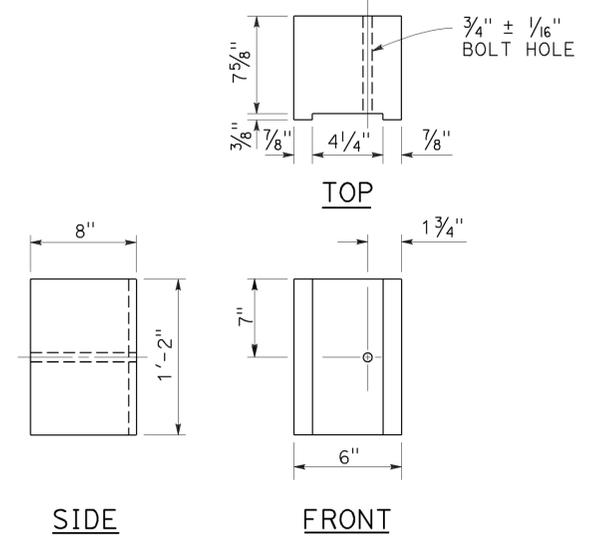
2010 REVISED STANDARD PLAN RSP A77N2



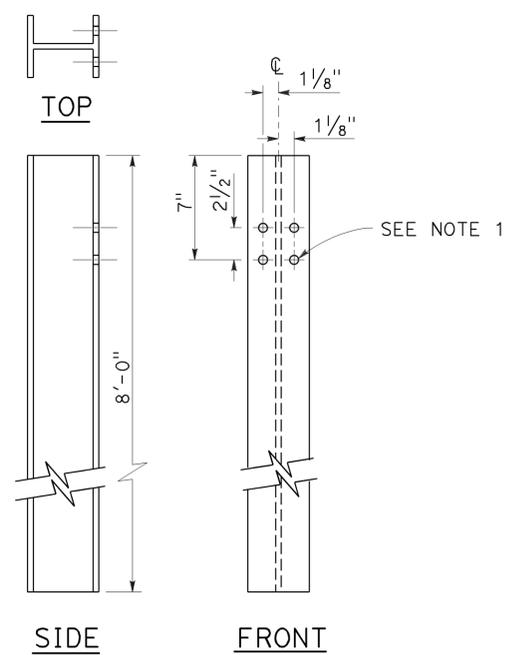
**W6 x 9 OR W6 x 8.5
STEEL POST**
See Note 4



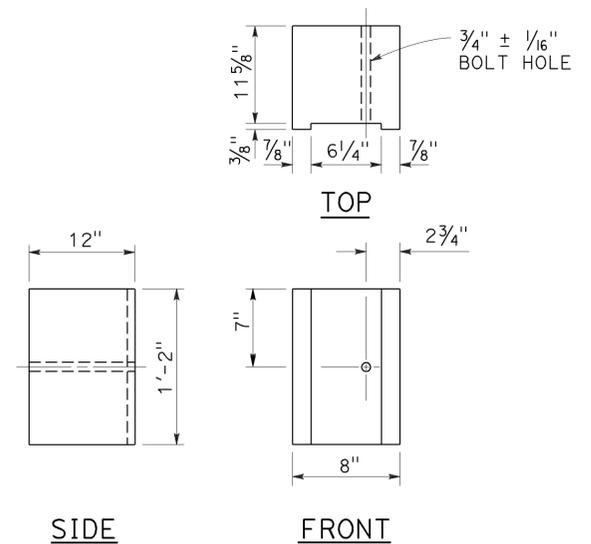
**6" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



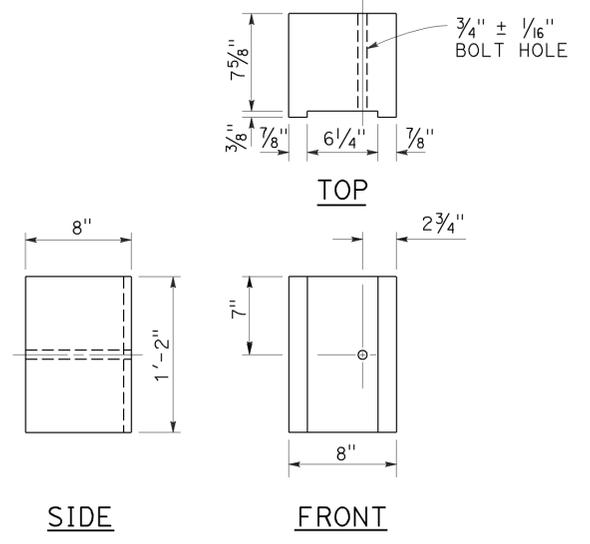
**6" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5



**W6 x 15
STEEL POST**
See Note 6



**8" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



**8" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

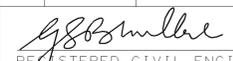
**MIDWEST GUARDRAIL SYSTEM
STEEL POST AND
NOTCHED WOOD BLOCK DETAILS**

NO SCALE

RSP A77N2 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77N2
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N2

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 32 | 40 |


 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 2-24-14

TABLE 1

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

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

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

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

TABLE 2

| LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING | | | | |
|---|----------|---------------------|-----|-----|
| SPEED * | Min D ** | DOWNGRADE Min D *** | | |
| | | -3% | -6% | -9% |
| | | 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.

REVISED STANDARD PLAN RSP T9

2010 REVISED STANDARD PLAN RSP T9

NOTES:

See Revised Standard Plan RSP T9 for tables.

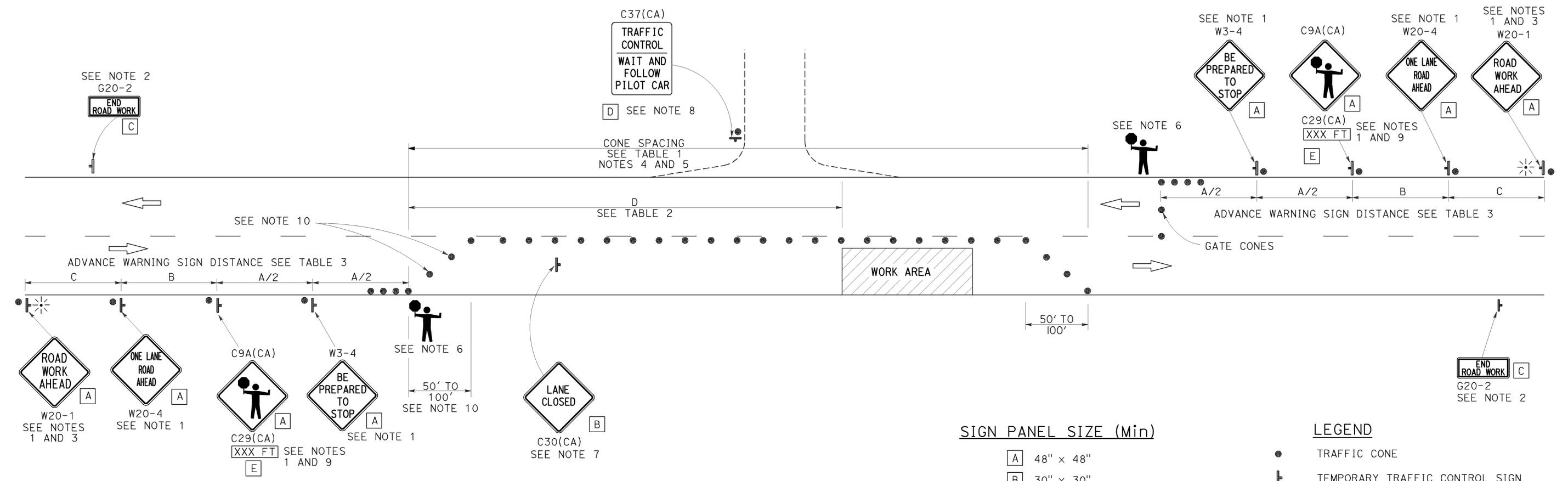
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 2-24-14



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.

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

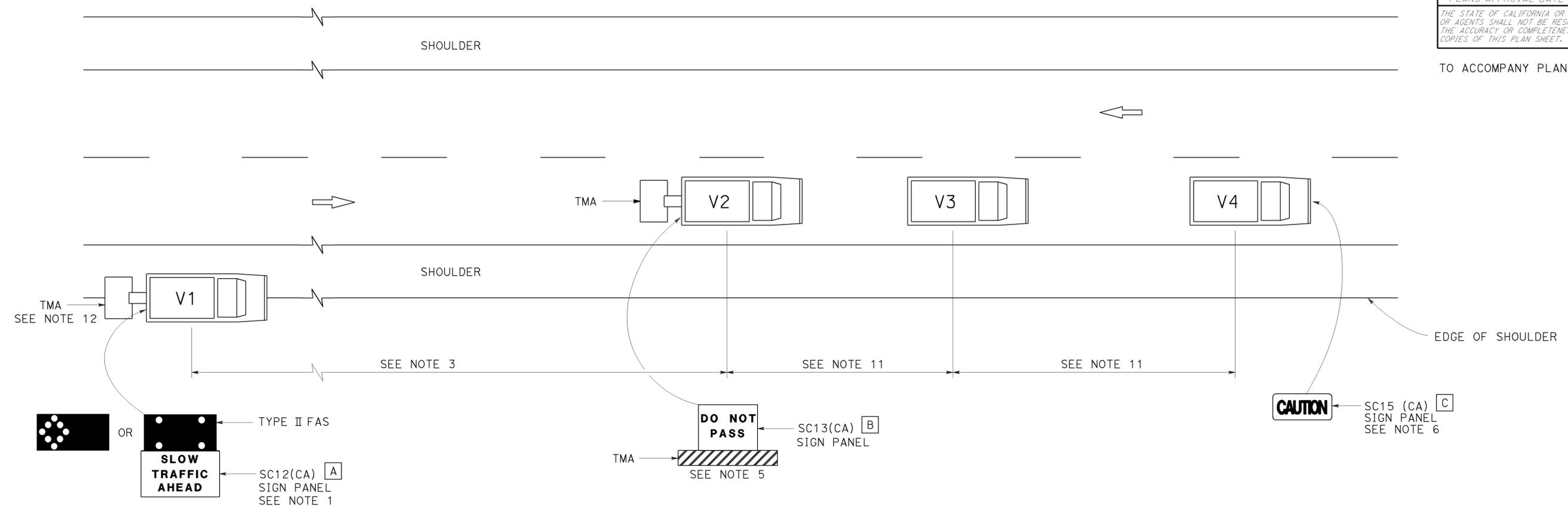
NO SCALE

RSP T13 DATED APRIL 19, 2013 SUPERSEDES 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 2-24-14



NOTES:

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.

7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

LEGEND

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

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON TWO LANE HIGHWAYS**
 NO SCALE

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

REVISED STANDARD PLAN RSP T17

2010 REVISED STANDARD PLAN RSP T17

LEGEND:

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

ABBREVIATIONS

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

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 35 | 40 |

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 2-24-14

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

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

MISCELLANEOUS ELECTROLIERS

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

NOTES:

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

STANDARD ELECTROLIER

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 36 | 40 |

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa Aziz Gabriel
REGISTERED PROFESSIONAL ENGINEER
No. E15129
Exp. 6-30-14
ELECTRICAL

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TO ACCOMPANY PLANS DATED 2-24-14

CONDUIT

SIGNAL EQUIPMENT

| NEW | EXISTING | |
|----------|----------|---|
| --- | --- | LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED |
| --- | --- | TRAFFIC SIGNAL CONDUIT |
| ---C--- | ---c--- | COMMUNICATION CONDUIT |
| ---T--- | ---t--- | TELEPHONE CONDUIT |
| ---F--- | ---f--- | FIRE ALARM CONDUIT |
| ---FO--- | ---fo--- | FIBER OPTIC CONDUIT |
| --- | --- | CONDUIT TERMINATION |
| | | CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE |

| NEW | EXISTING | |
|-----|----------|---|
| | | PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD |
| | | PUSH BUTTON ASSEMBLY POST |
| | | PEDESTRIAN BARRICADE |
| | | VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN) |
| | | VEHICLE SIGNAL HEAD WITH ANGLE VISOR |
| | | MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED) |

SIGNAL EQUIPMENT Cont

| NEW | EXISTING | |
|-----|----------|---|
| | | GUARD POST |
| | | TYPE 1 STANDARD WITH RAMP METERING SIGN |
| | | OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM |

SERVICE EQUIPMENT

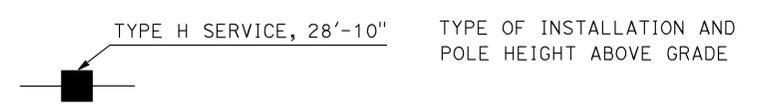
| NEW | EXISTING | |
|----------|----------|---|
| ---OH--- | ---oh--- | OVERHEAD LINES |
| | | WOOD POLE, "U" INDICATES UTILITY OWNED |
| | | POLE GUY WITH ANCHOR |
| | | UTILITY TRANSFORMER - GROUND MOUNTED |
| | | SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE |
| | | TELEPHONE DEMARCATION CABINET |

| | | |
|--|--|---|
| | | VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS |
| | | VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION |
| | | VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS |
| | | TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE |
| | | TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE |
| | | STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS |
| | | TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS |
| | | STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN |
| | | CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET |

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.

POLE-MOUNTED SERVICE DESIGNATION



FLASHING BEACON

| NEW | EXISTING | |
|-----|----------|--|
| | | FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION |
| | | FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN. |
| | | FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED |

ILLUMINATED OVERHEAD SIGN

| NEW | EXISTING | |
|-----|----------|--|
| | | SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY |
| | | SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY |
| | | SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER |
| | | DOUBLE POST, SINGLE ILLUMINATED SIGN |
| | | SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE |
| | | DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

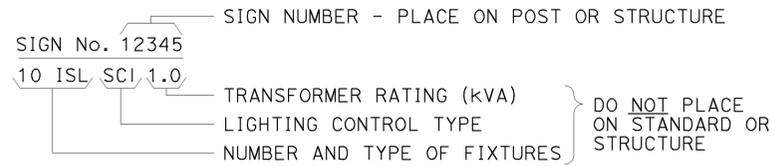
RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

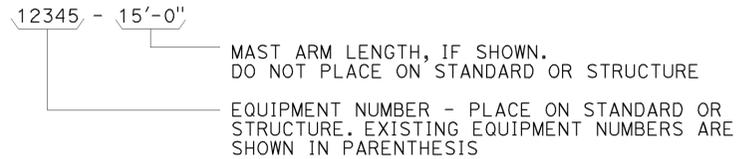
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

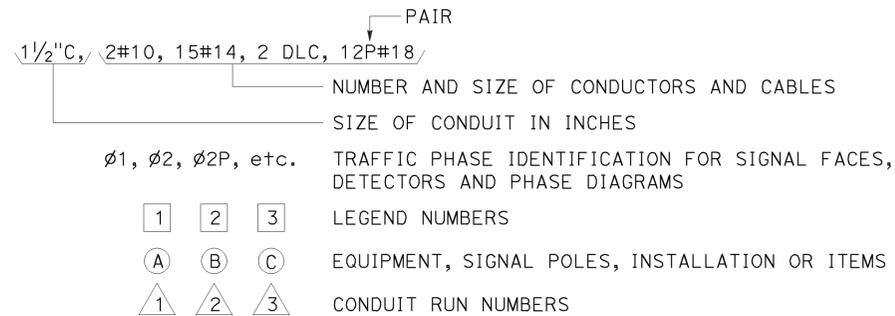
ILLUMINATED SIGN IDENTIFICATION NUMBER:



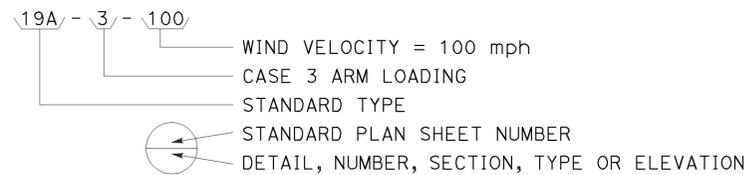
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



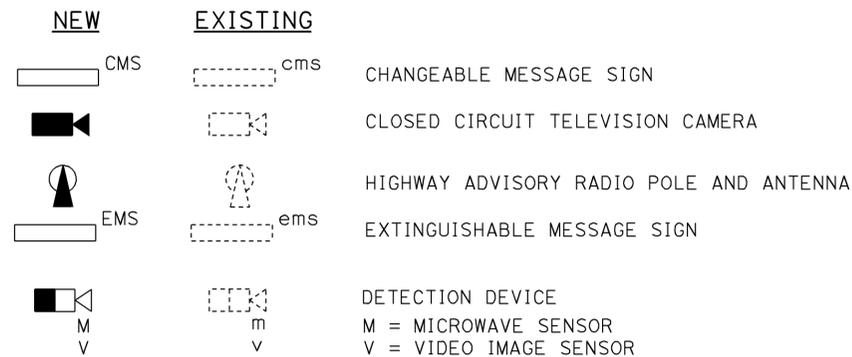
CONDUIT AND CONDUCTOR IDENTIFICATION:



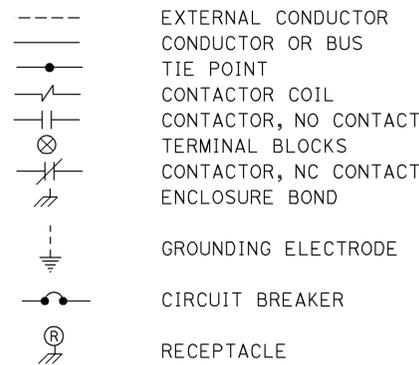
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



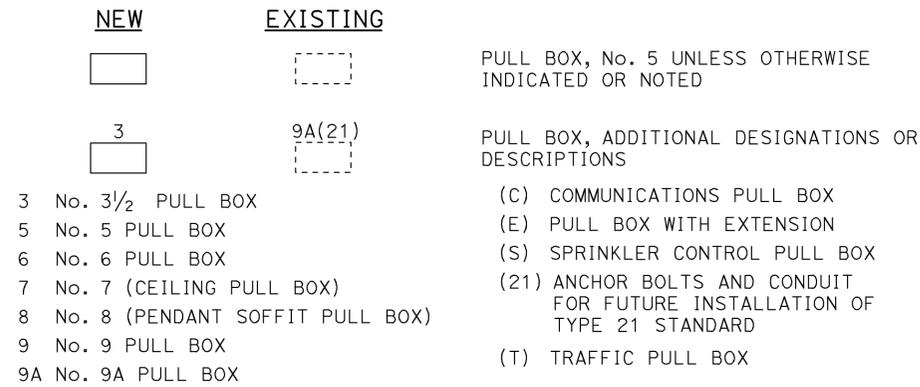
MISCELLANEOUS EQUIPMENT



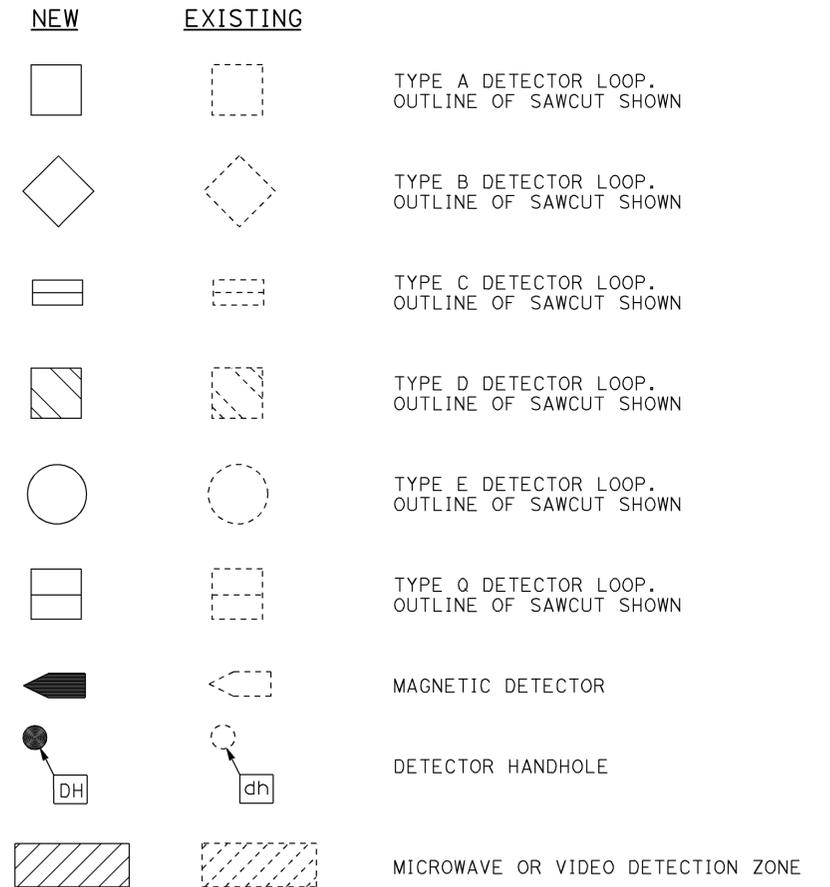
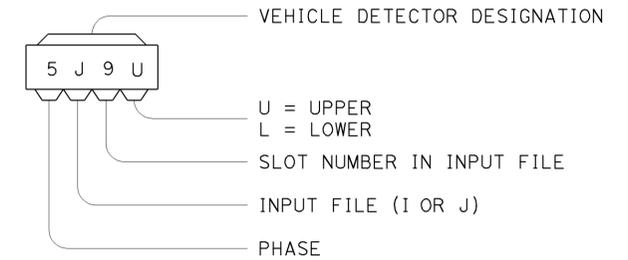
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

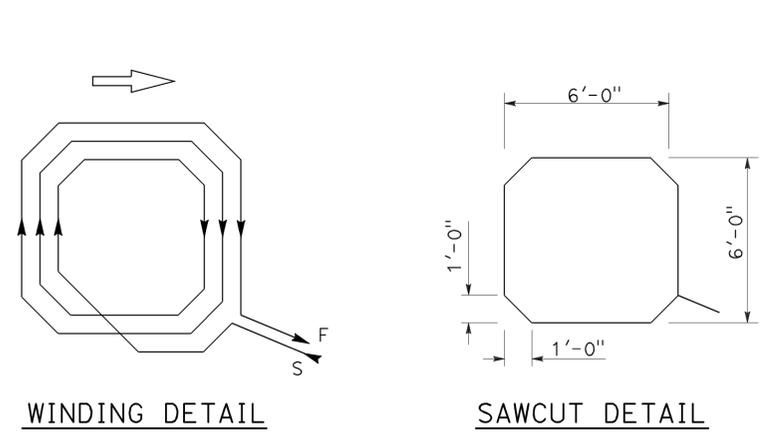
2010 REVISED STANDARD PLAN RSP ES-1C

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 38 | 40 |

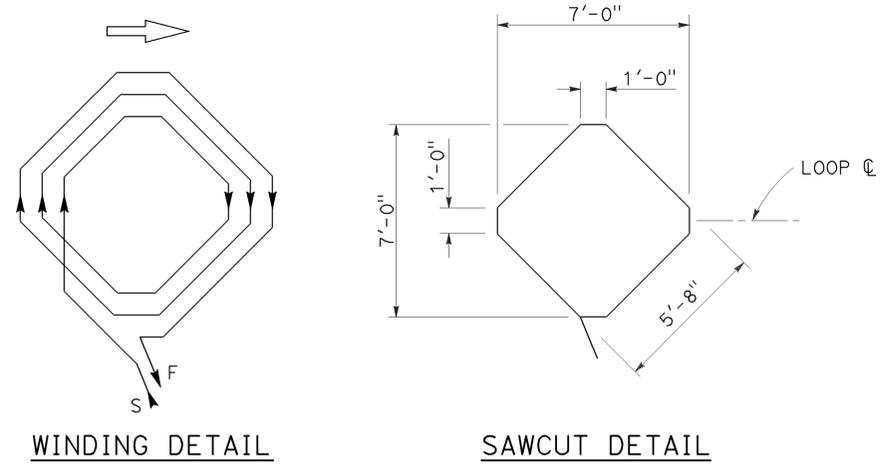
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-24-14

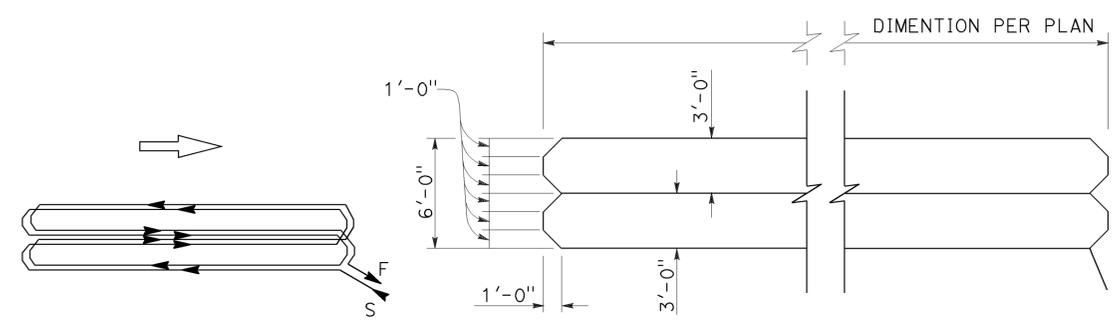
2010 REVISED STANDARD PLAN RSP ES-5B



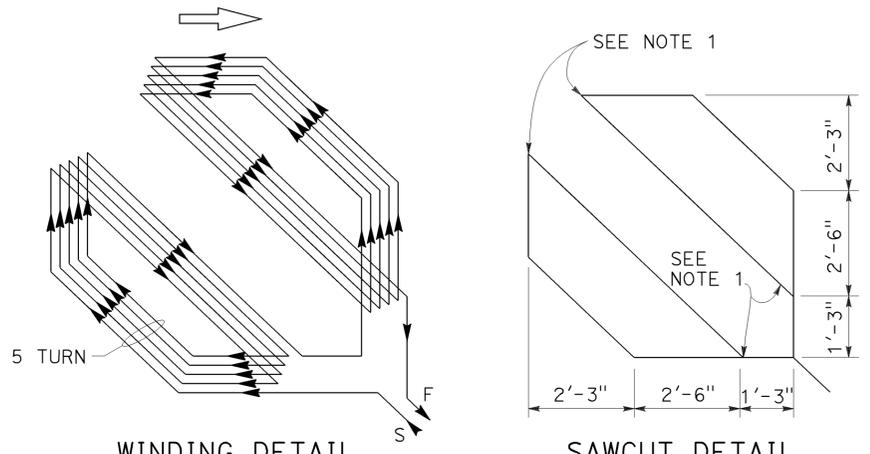
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



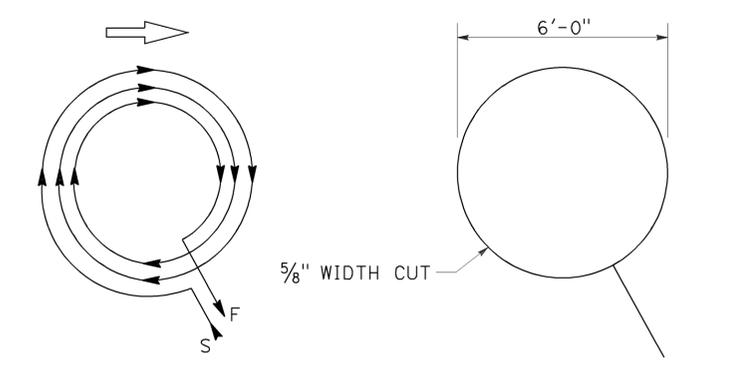
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



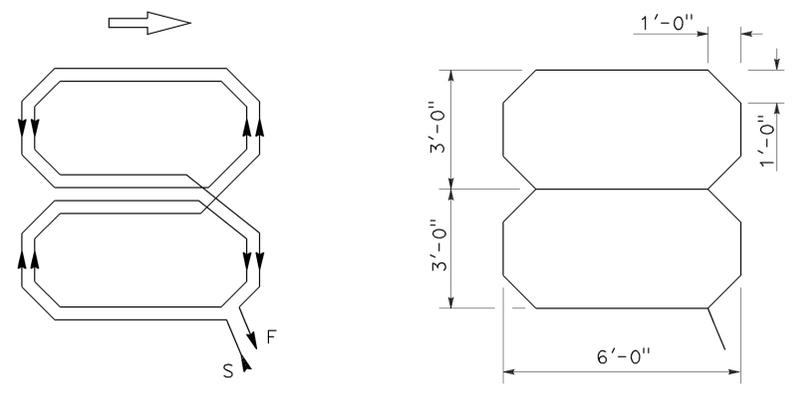
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



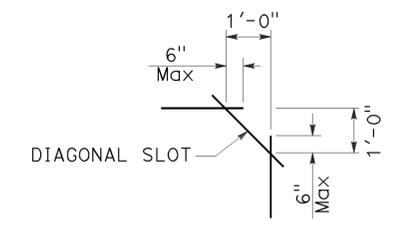
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



**PLAN VIEW OF
DIAGONAL SLOT
AT CORNERS**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(DETECTORS)**

NO SCALE

RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B
DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5B

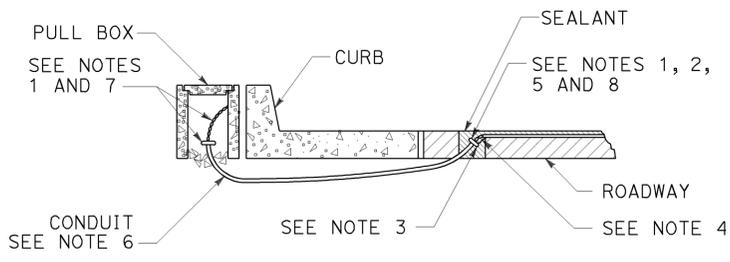
- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 39 | 40 |

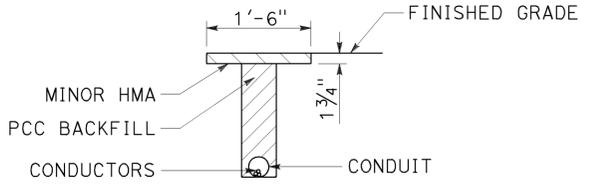
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 2-24-14

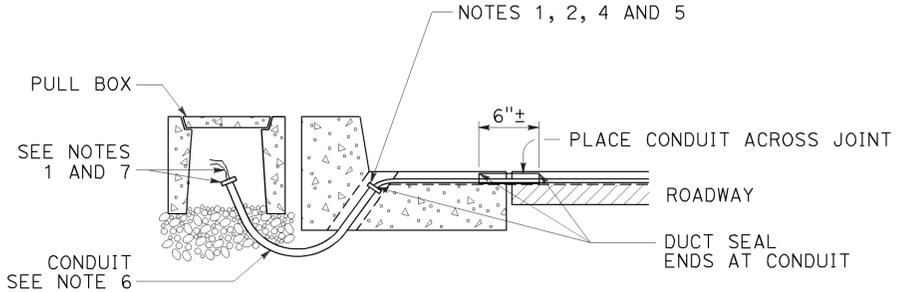
2010 REVISED STANDARD PLAN RSP ES-5D



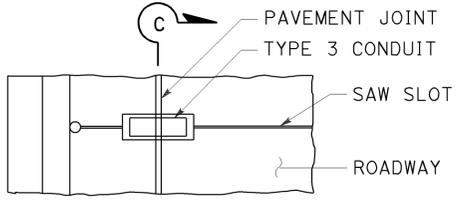
**TYPE A
CURB TERMINATION DETAIL**



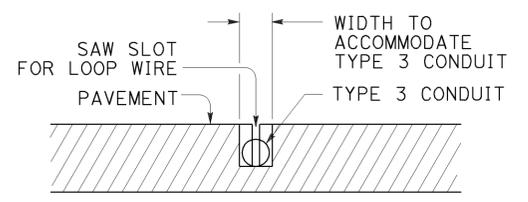
**"T" TRENCH
DETAIL T**



CROSS SECTION

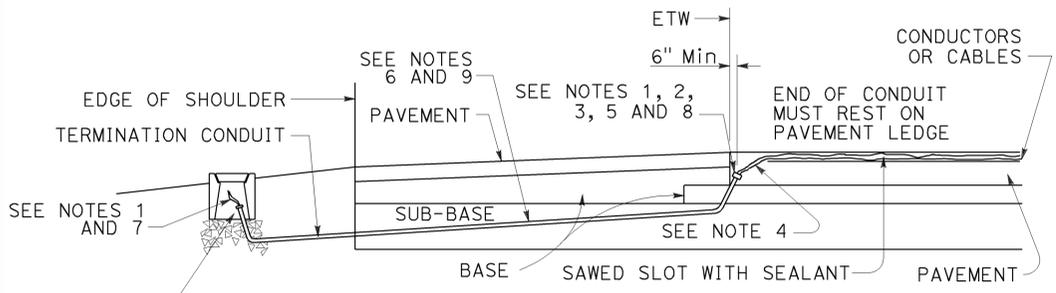


PLAN VIEW

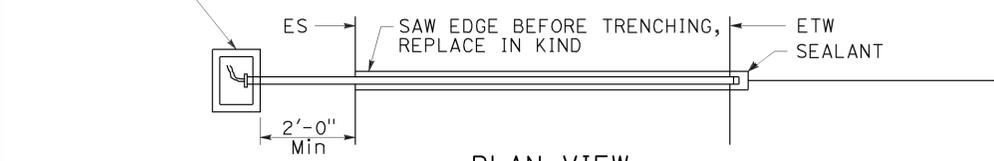


SECTION C-C

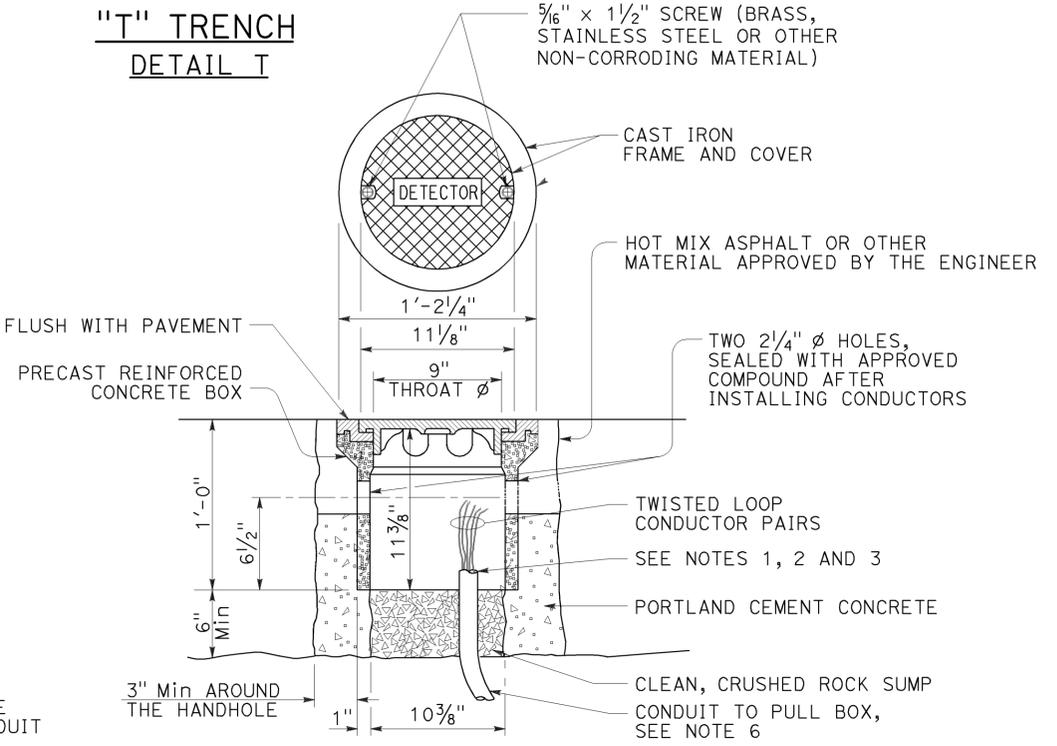
**TYPE B
CURB TERMINATION DETAIL**



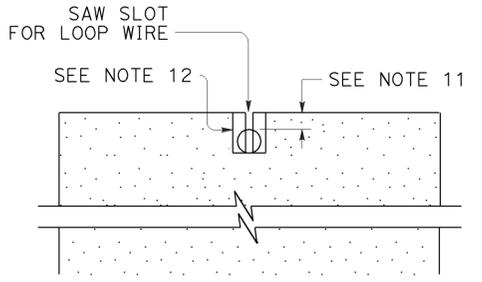
CROSS SECTION



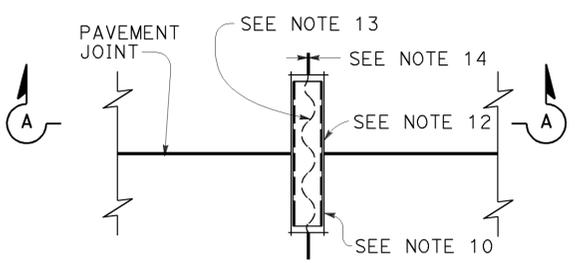
**PLAN VIEW
SHOULDER TERMINATION DETAILS**



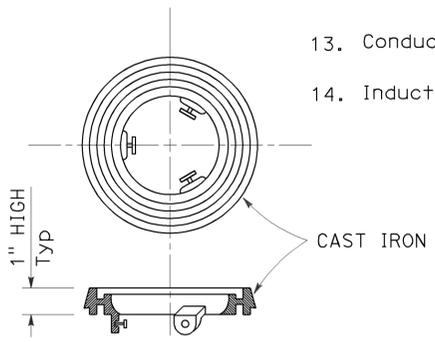
DETECTOR HANDHOLE DETAIL



SECTION A-A



**PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT**



LOCKING GRADE RING

NOTES:

- Bushing shall be used at end of conduit.
- Tape detector conductors or cables 3" each side of bushings.
- Install duct seal compound to each end of termination conduit before installing sealant.
- Round all sharp edges where detector conductors or cables have to pass.
- End of conduit shall be 3/8" below roadway surface.
- Conduit size Loop conductors
 1"C minimum 1 to 2 pairs
 1 1/2"C minimum 3 to 4 pairs
 2"C minimum 5 or more pairs
- Splice detector conductors or cables to detector lead-in-cable.
- Location of detector handhole when shown on plans.
- When the shoulder and traveled way are paved with the same material and there is no joint between them, the conduit shall extend only 2'-0" into the shoulder pavement.
- 3/4"C, Type 3 conduit 6" long minimum, plug both ends with duct compound to keep out sealant.
- 1/2" Minimum between top of conduit and pavement surface.
- Sawcut shall not exceed 1" in width and 1/8" longer than conduit to be installed.
- Conductors with 1/2" minimum slack inside conduit.
- Inductive loop detector saw slot.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (CURB TERMINATION
 AND HANDHOLE)**
 NO SCALE

RSP ES-5D DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5D
 DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

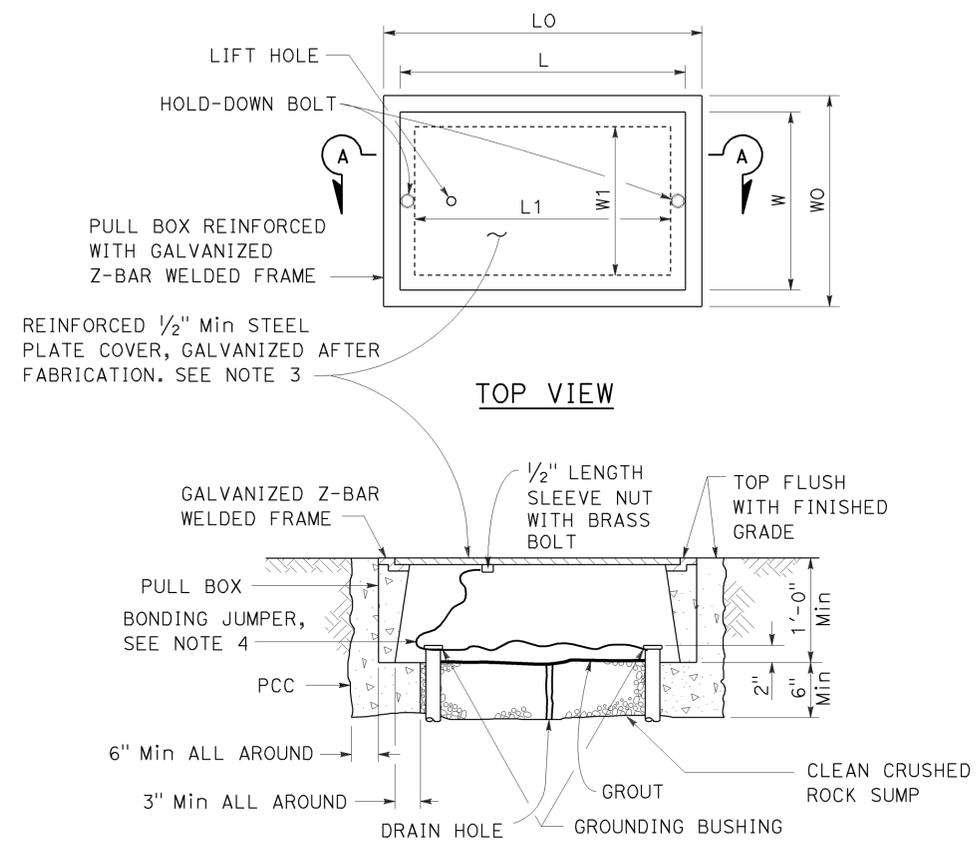
REVISED STANDARD PLAN RSP ES-5D

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 03 | But | 99 | R37.2/44.4 | 40 | 40 |

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 2-24-14



SECTION A-A
No. 3 1/2(T), No. 5(T) AND
No. 6(T) TRAFFIC PULL BOX

NOTES:

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
 - No. 3 1/2(T) pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5(T) or 6(T) pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATION" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communications line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8".

| DIMENSION TABLE | | | | | | | | | | | |
|-----------------|---------------------|---------------------------------|----------------|-------------|-------------|-------------|--------|------------|----|----------------|------------|
| PULL BOX | PULL BOX | | | | | | COVER | | | | |
| | MINIMUM * THICKNESS | MINIMUM DEPTH BOX AND EXTENSION | W0 | L0 | L1 | W1 | L ** | W ** | R | EDGE THICKNESS | EDGE TAPER |
| No. 3 1/2(T) | 1 1/2" | 1'-0" | 1'-5"± 1" | 1'-8 3/8"± | 1'-2 1/2"± | 10 5/8"± 1" | 1'-8"± | 1'-1 3/4"± | 0" | 1/2" | NONE |
| No. 5(T) | 1 3/4" | 1'-0" | 1'-11 1/2"± 1" | 2'-5 1/2"± | 1'-7"± | 1'-1"± 1" | 2'-3"± | 1'-4"± | 0" | 1/2" | NONE |
| No. 6(T) | 2" | 1'-0" | 2'-6"± 1" | 2'-11 1/2"± | 1'-11 1/2"± | 1'-5"± 1" | 2'-9"± | 1'-8"± | 0" | 1/2" | NONE |

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(TRAFFIC PULL BOX)
 NO SCALE

RSP ES-8B DATED JULY 19, 2013 SUPERSEDES RSP ES-8B DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-8B

2010 REVISED STANDARD PLAN RSP ES-8B