

INDEX OF PLANS

| SHEET No. | DESCRIPTION |
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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK

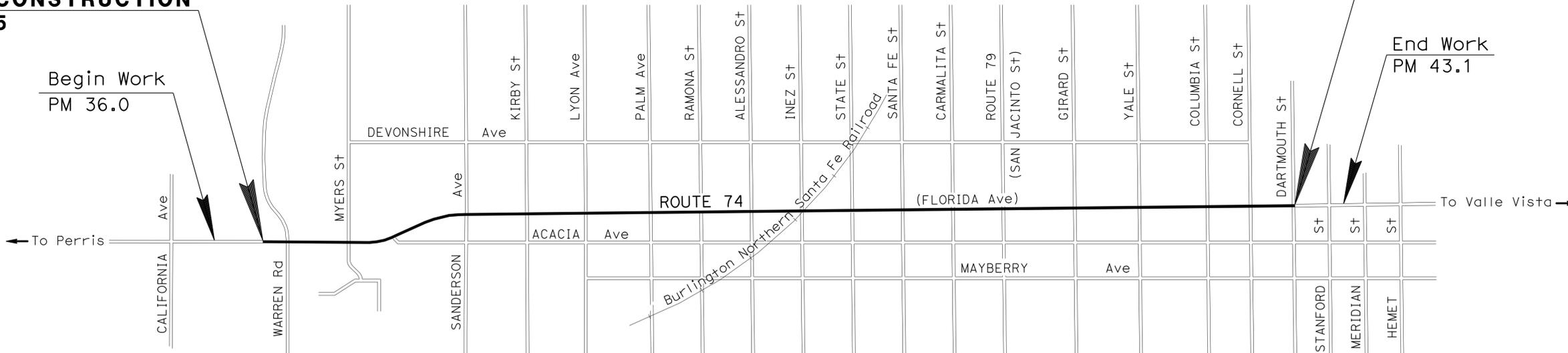
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN RIVERSIDE COUNTY
IN HEMET
FROM 0.5 MILE WEST OF WARREN ROAD
TO DARTMOUTH STREET

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



BEGIN CONSTRUCTION
PM 36.5

Begin Work
 PM 36.0



END CONSTRUCTION
PM 42.6

End Work
 PM 43.1

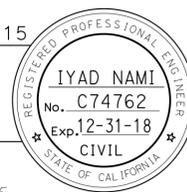
HEMET

NO SCALE

PROJECT MANAGER
MICHAEL RISTIC
 DESIGN MANAGER
MICHAEL RISTIC

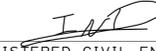
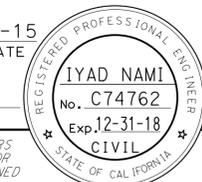
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER
 DATE 12-3-15
 December 7, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



| | |
|--------------|-------------------|
| CONTRACT No. | 08-1G1004 |
| PROJECT ID | 0815000125 |

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 2 | 37 |

| | | |
|---|--|---|
|  REGISTERED CIVIL ENGINEER DATE 12-3-15 | |  |
| PLANS APPROVAL DATE 12-7-15 | | |

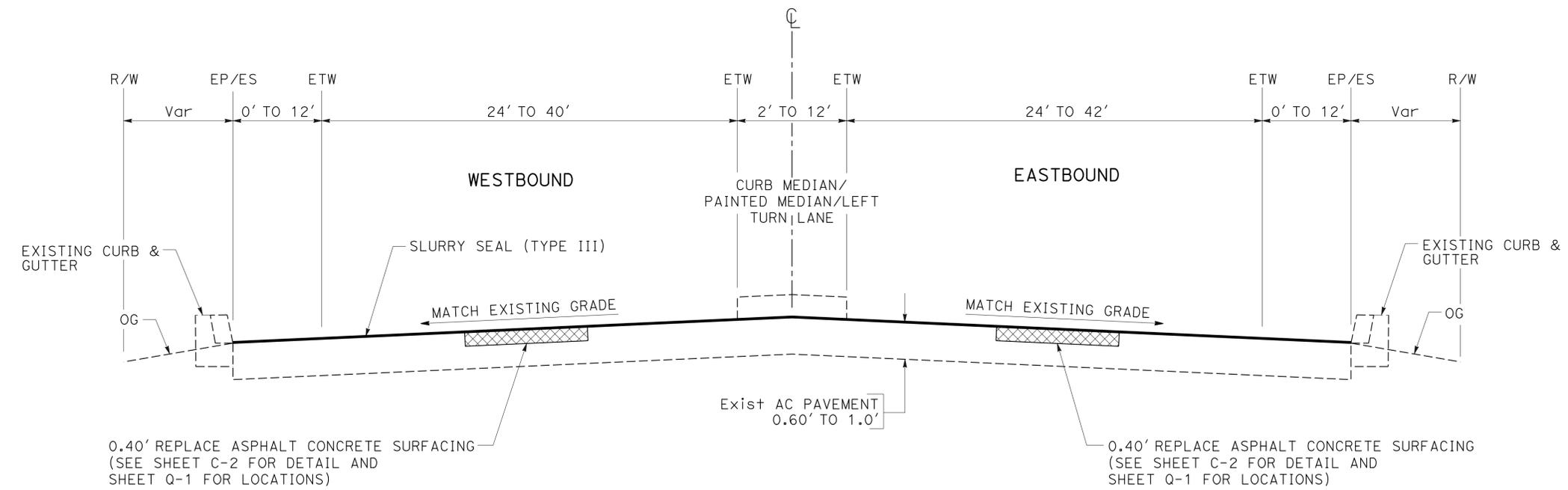
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

- DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- PROTECT ALL EXISTING MANHOLE, WATER VALVE COVER, DRAINAGE INLETS AND CONCRETE SLABS IN PLACE.
- EXISTING SLOPES (SUCH AS: HIGHWAY SURFACES, CROSS GUTTERS, ETC) SHALL BE MAINTAINED.
- ALL WORK WITHIN STATE RIGHT OF WAY, FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- TEMPORARY FENCE (TYPE ESA) SHALL BE INSTALLED AROUND ALL STAGING/PARKING AREAS AND MATERIAL STORAGE AREAS.

LEGEND:

-  SLURRY SEAL (TYPE III)
-  0.40' REPLACE ASPHALT CONCRETE SURFACING (HMA-A)



ROUTE 74
PM 36.5 TO PM 42.6

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TYPICAL CROSS SECTIONS
NO SCALE **X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL RISTIC
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 RAYMOND YIP
 IYAD NAMI
 REVISED BY: [Blank]
 DATE REVISED: [Blank]

LAST REVISION DATE PLOTTED => 11-DEC-2015
 12-03-15 TIME PLOTTED => 10:28

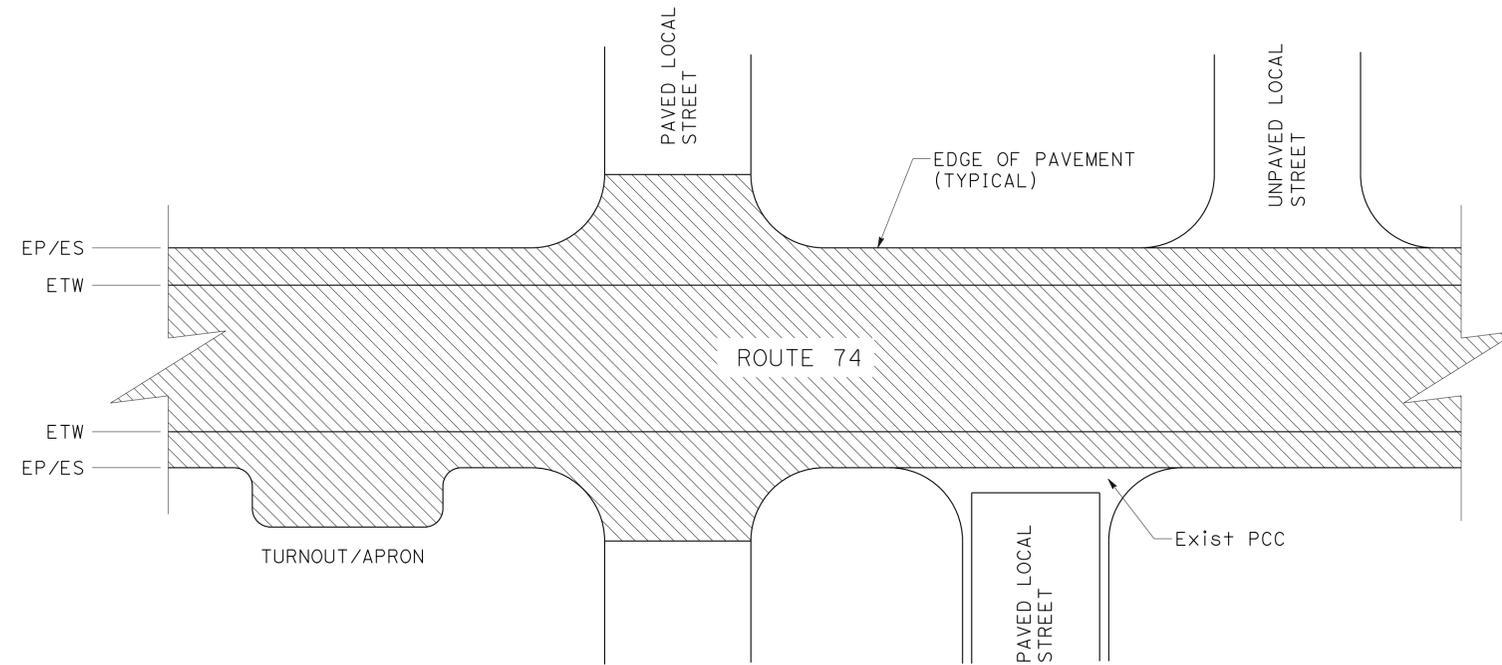
| | | | | | |
|---|--------|-------|-----------------------------|--------------------------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 3 | 37 |
| | | | 12-3-15 | REGISTERED CIVIL ENGINEER DATE | |
| | | | 12-7-15 | PLANS APPROVAL DATE | |
| | | | | | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | |

NOTES:

1. EXACT LIMITS OF WORK SHALL BE DETERMINED BY THE ENGINEER.
2. FOR REPLACE ASPHALT CONCRETE SURFACING LOCATIONS AND QUANTITIES SEE SHEET Q-1.
EXACT LOCATIONS OF REPLACING ASPHALT CONCRETE SURFACE TO BE DETERMINED BY THE ENGINEER.
3. PROTECT IN PLACE EXISTING SURVEY MONUMENTS. SEE Q-2 FOR LOCATIONS.

LEGEND:

LIMITS OF WORK



**LIMITS OF WORK AT TYPICAL
LOCAL STREET INTERSECTIONS**

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

CONSTRUCTION DETAILS

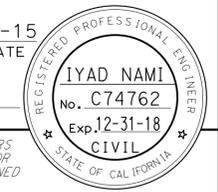
NO SCALE

C-1

| | | | |
|--|-------------|-------------|------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | RAYMOND YIP | REVISOR | DATE |
| Caltrans MAINTENANCE DESIGN | IYAD NAMI | DESIGNER | DATE |
| FUNCTIONAL SUPERVISOR | CHECKED BY | DESIGNED BY | DATE |
| MICHAEL RISTIC | | | |



| | | | | | |
|---|--------|-------|---|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 4 | 37 |
| | | | 12-3-15 REGISTERED CIVIL ENGINEER DATE | | |
| | | | 12-7-15 PLANS APPROVAL DATE | | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | |

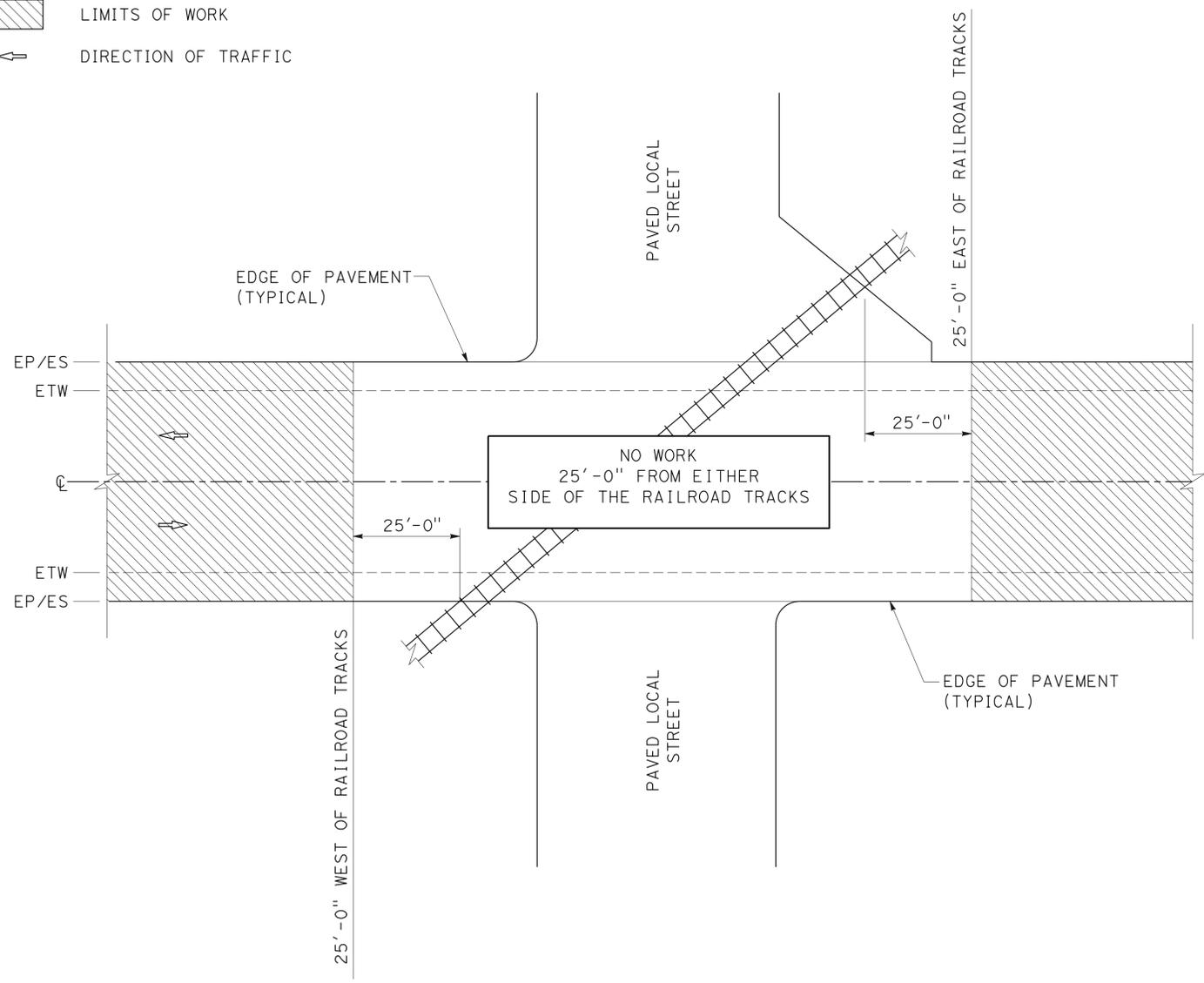


NOTES:

1. ALL WORK WITHIN STATE RIGHT OF WAY.
2. EXACT LOCATION OF REPLACE ASPHALT CONCRETE SURFACING TO BE DETERMINED BY THE ENGINEER.

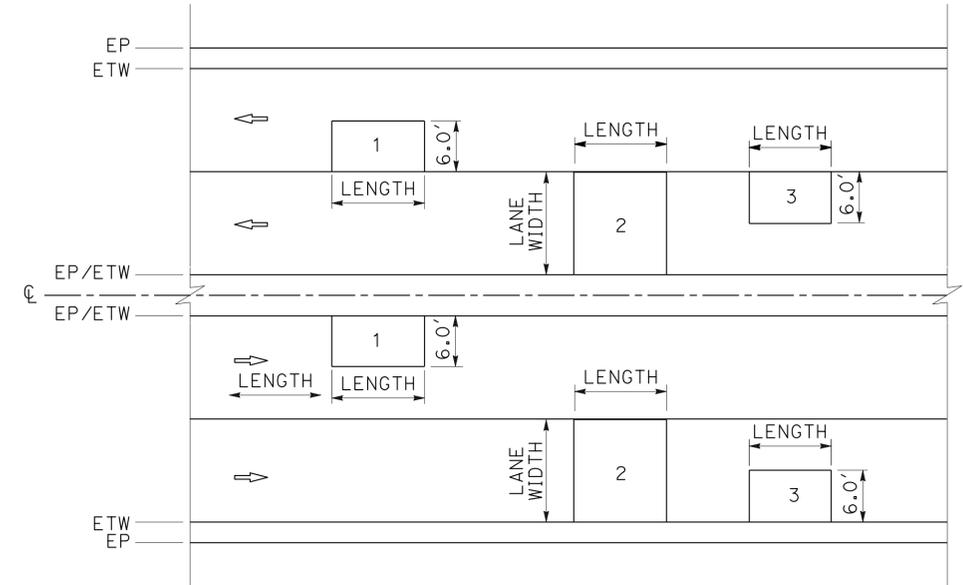
LEGEND:

- SLURRY SEAL (TYPE III)
- 0.40' REPLACE ASPHALT CONCRETE SURFACING (HMA-A)
- LIMITS OF WORK
- DIRECTION OF TRAFFIC



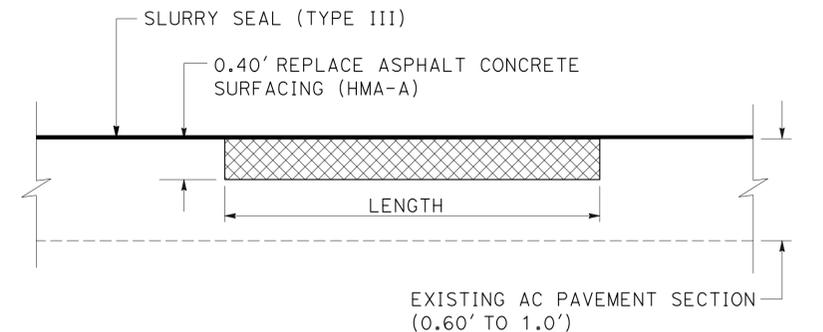
PAVING LIMITS OF WORK AT RAILROAD CROSSING

PM 40.52



**PLAN VIEW
TYPICAL REPLACE ASPHALT CONCRETE SURFACING LOCATIONS**

- CASE 1: LEFT WHEEL TRACK (L)
- CASE 2: CENTER OF TRAVEL WAY (C)
- CASE 3: RIGHT WHEEL TRACK (R)



**PROFILE
REPLACE ASPHALT CONCRETE SURFACING**

FOR REPLACE ASPHALT CONCRETE SURFACING LOCATIONS AND DIMENSIONS SEE SHEET Q-1

CONSTRUCTION DETAILS

NO SCALE

C-2

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL RISTIC
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]
 RAYMOND YIP: [blank] IYAD NAMI: [blank]
 REVISOR: [blank] DATE: [blank]



| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 5 | 37 |

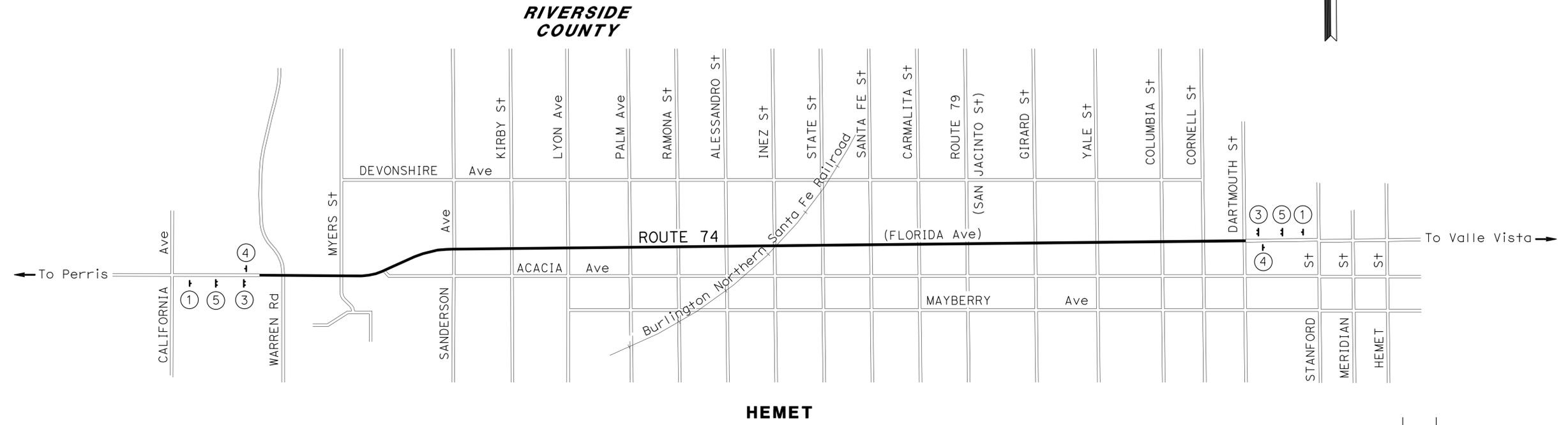
M.M. Kamgar Registered Professional Engineer
 REGISTERED CIVIL ENGINEER DATE 12-3-15
 12-7-15
 PLANS APPROVAL DATE

MEHDI KAMGAR
 No. C58039
 Exp. 6-30-16
 CIVIL

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

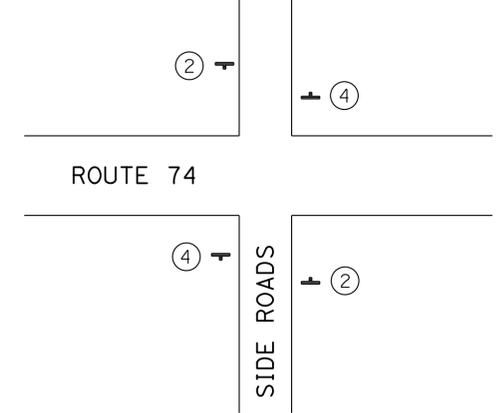
NOTE:
 1. THE LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

LEGEND:
 [Thick black line] WORK AREA



PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)

| |
|------|
| (EA) |
| 4 |



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

| SIGN No. (X) | SIGN CODE | | PANEL SIZE | SIGN MESSAGE | NUMBER OF POSTS AND SIZE | NUMBER OF SIGNS |
|--------------|-----------|------------|------------|--|----------------------------|-----------------|
| | FEDERAL | CALIFORNIA | | | | |
| 1 | W20-1 | | 48" X 48" | ROAD WORK AHEAD | 1 - 6" X 6" | 2 |
| 2 | W20-1 | | 36" X 36" | ROAD WORK AHEAD | 1 - 4" X 6" OR PORTABLE | 48 |
| 3 | G20-1 | | 60" X 36" | ROAD WORK NEXT 6 MILES | 2 - 4" X 6" | 2 |
| 4 | G20-2 | | 36" X 18" | END ROAD WORK | 1 - 4" X 4" | 50 |
| 5 | | C40 | 108" X 42" | TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONE | 2 - 6" X 6" | 2 |

TYPICAL ADVANCE CONSTRUCTION SIGNS AT INTERSECTIONS
 (ON POST OR PORTABLE DEVICE)

CONSTRUCTION AREA SIGNS
 NO SCALE
CS-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans® TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: MARIO AMANCIO
 CHECKED BY: MEHDI KAMGAR
 DESIGNED BY: SHAHRAM MOKHTARI
 REVISOR: MEHDI KAMGAR
 DATE: 12-7-15

LAST REVISION DATE PLOTTED => 11-DEC-2015
 12-03-15 TIME PLOTTED => 10:28

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 6 | 37 |

M.M. Kamgar *M.M. Kamgar* 12-3-15
REGISTERED CIVIL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

MEHDI KAMGAR
No. C58039
Exp. 6-30-16
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.

PAVEMENT DELINEATION QUANTITIES

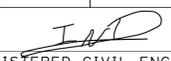
| LOCATION | DETAIL No. | REMOVE PAVEMENT MARKERS | REMOVE THERMOPLASTIC PAVEMENT MARKING | | REMOVE THERMOPLASTIC TRAFFIC STRIPE | | REMOVE THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE) | | PAVEMENT MARKERS (RETROREFLECTIVE) | | THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE) | | | THERMOPLASTIC PAVEMENT MARKING | | COMMENTS |
|--------------|------------|-------------------------|---------------------------------------|--------|-------------------------------------|----------|---|--------|------------------------------------|----------|--|----------|-------|--------------------------------|---------------|-------------------|
| | | | WHITE | YELLOW | 4" WHITE | 8" WHITE | 4" YELLOW | TYPE G | TYPE D | 4" WHITE | 4" YELLOW | 8" WHITE | WHITE | YELLOW | | |
| | | | EA | SQFT | LF | LF | EA | LF | SQFT | | | | | | | |
| PM 36.5/42.6 | 12 | 7600 | | | 59600 | | | 1280 | | 59600 | | | | | | |
| | 22 | | | | | | 600 | | | 7020 | | | | | | |
| | 32 | | | | | | 5500 | | | 48000 | | | | | | |
| | 38 | | | | | 4700 | | 220 | | | | 4700 | | | | |
| | 27B | | | | 8500 | | | | | 8500 | | | | | | |
| | | | | 2800 | | | | | | | | | 2800 | | | TYPE IV(L) ARROW |
| | | | | 360 | | | | | | | | | 360 | | | TYPE IV(R) ARROW |
| | | | | 336 | | | | | | | | | 336 | | | TYPE VI ARROW |
| | | | | 1024 | | | | | | | | | 1024 | | | SIGNAL |
| | | | | 990 | | | | | | | | | 990 | | | AHEAD |
| | | | | 13700 | 260 | | | | | | | | 13700 | 260 | | 12" CROSS WALK |
| | | | | 1400 | | | | | | | | | 1400 | | | LIMIT LINE |
| | | | | 510 | | | | | | | | | 510 | | | RAILROAD CROSSING |
| | | | | 2000 | | | | | | | | | 2000 | | | CROSS HATCH |
| | | | 120 | | | | | | | | | 120 | | | PARKING MARKS | |
| | | | 22 | | | | | | | | | 22 | | | ONLY | |
| SUBTOTAL | | 7600 | 23262 | 260 | 68100 | 4700 | 55020 | 1500 | 6100 | 68100 | 55020 | 4700 | 23262 | 260 | | |
| TOTAL | | 7600 | 23262 | 260 | 72800 | | 55020 | 7600 | | 127820 | | | 23522 | | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
FUNCTIONAL SUPERVISOR: MARIO AMANCIO
DESIGNED BY: SHAHRAM MOKHTARI
CHECKED BY: MEHDI KAMGAR
REVISOR: REVISOR BY DATE
REVISOR: REVISOR BY DATE

PAVEMENT DELINEATION QUANTITIES PDQ-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 7 | 37 |

 12-3-15
 REGISTERED CIVIL ENGINEER DATE

12-7-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 IYAD NAMI
 No. C74762
 Exp. 12-31-18
 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.

TEMPORARY FENCE (TYPE ESA)

| | |
|--|------|
| AROUND ALL STAGING/PARKING AREAS AND MATERIAL STORAGE AREAS. | LF |
| | 1000 |

SLURRY SEAL (TYPE III)

| | |
|-----------|------|
| PM | TON |
| 36.5/42.6 | 3371 |

CRACK TREATMENT

| |
|------|
| LMNI |
| 38 |

REPLACE ASPHALT CONCRETE SURFACING QUANTITIES

| LOCATION No. | POST MILE | DIRECTION | LANE No. | DIMENSIONS | | | REPLACE ASPHALT CONCRETE SURFACING | TACK COAT |
|--------------|-----------|-----------|----------|------------|----|-----|------------------------------------|-----------|
| | | | | L | W | D | | |
| | | | | LF | | | CY | TON |
| 1 | 36.50 | EB | 1 | 200 | 12 | 0.4 | 35.56 | 0.08 |
| 2 | 36.87 | EB | 2 | 660 | 6 | 0.4 | 58.67 | 0.13 |
| 3 | 36.92 | EB | 1 | 1000 | 6 | 0.4 | 88.89 | 0.19 |
| 4 | 37.15 | EB | 1 | 630 | 12 | 0.4 | 112.00 | 0.25 |
| 5 | 37.38 | EB | 1 | 670 | 6 | 0.4 | 59.56 | 0.13 |
| 6 | 37.47 | EB | 2 | 495 | 6 | 0.4 | 88.00 | 0.19 |
| 7 | 37.73 | EB | 1 | 352 | 6 | 0.4 | 31.29 | 0.07 |
| 8 | 38.50 | EB | 1 | 555 | 12 | 0.4 | 98.67 | 0.22 |
| 9 | 38.86 | EB | 2 | 620 | 12 | 0.4 | 110.22 | 0.24 |
| 10 | 40.70 | EB | 2 | 190 | 12 | 0.4 | 33.78 | 0.07 |
| 11 | 40.83 | EB | 1 | 167 | 12 | 0.4 | 29.69 | 0.07 |
| 12 | 42.32 | EB | 2 | 452 | 12 | 0.4 | 80.36 | 0.18 |
| 13 | 36.96 | WB | 2 | 650 | 12 | 0.4 | 115.56 | 0.25 |
| 14 | 37.02 | WB | 1 | 524 | 12 | 0.4 | 93.16 | 0.20 |
| 15 | 37.47 | WB | 2 | 815 | 12 | 0.4 | 144.89 | 0.32 |
| 16 | 37.67 | WB | 1 | 90 | 12 | 0.4 | 16.00 | 0.04 |
| 17 | 38.71 | WB | 2 | 605 | 12 | 0.4 | 107.56 | 0.24 |
| 18 | 38.84 | WB | 1 | 280 | 12 | 0.4 | 49.78 | 0.11 |
| 19 | 40.93 | WB | 2 | 90 | 12 | 0.4 | 16.00 | 0.04 |
| TOTAL | | | | | | | 1369.64 | 3.0 |

NOTE:
 1. EXACT LOCATION AND DIMENSION TO BE DETERMINED BY THE ENGINEER.

SUMMARY OF QUANTITIES Q-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL RISTIC
 CALCULATED/DESIGNED BY: RAYMOND YIP
 CHECKED BY: IYAD NAMI
 REVISED BY: DATE REVISD

LAST REVISION DATE PLOTTED => 11-DEC-2015
 12-03-15 TIME PLOTTED => 10:28

SURVEY MONUMENTS (PROTECT IN PLACE)

| SURVEY MONUMENT DESCRIPTION | POST MILE | QUANTITY (N) |
|---|-----------|--------------|
| CSM, FLUSH, STAMPED "T55 R2W", N 1/4 SEC 13, AT CL FLORIDA Ave/Hwy 74 | 36.40 | 1 |
| 1" I.P., FLUSH, TAG "MWD LS 6599", S'LY OF HWY 74, W'LY LINE SAN DIEGO CANAL | 36.50 | 1 |
| 1" I.P., FLUSH, TAG "MWD LS 6599", N'LY OF HWY 74, W'LY LINE SAN DIEGO CANAL | 36.50 | 1 |
| 1" I.P., FLUSH, TAG "MWD LS 6599", N'LY OF HWY 74, E'LY LINE SAN DIEGO CANAL | 36.50 | 1 |
| 1" I.P., FLUSH, TAG "MWD LS 6599", S'LY OF HWY 74, E'LY LINE SAN DIEGO CANAL | 36.50 | 1 |
| CAST IRON CYLINDER CAP, DOWN 8", R2W T55 R1W, S12 S7, S13 S18, AT WARREN RD & HWY 74 | 36.90 | 1 |
| 2" I.P., FLUSH, TAG "MWD RCE 21759", 30' SOUTH OF HWY 74 CL | 37.10 | 1 |
| 2" I.P., FLUSH, TAG "MWD RCE 21759", 30' SOUTH OF HWY 74 CL | 37.15 | 1 |
| 1" BRASS DISK, FLUSH, STAMPED "RCE 12116", N COR SEC 18 | 37.40 | 1 |
| " I.P., 14.32' W'LY OF CL MYERS STREET, AT CL FLORIDA AVE/HWY 74 | 37.40 | 1 |
| STD DISK, IN WELL, STAMPED "FLORIDA-MYERS P.I. 1967", MYERS ST & HWY 74 | 37.40 | 1 |
| " I.P., 24.78 N'LY OF CL FLORIDA AVE/HWY 74, AT CL MYERS STREET | 37.40 | 1 |
| STD DISK, IN WELL, STAMPED "6.00' LT K550 653+73.56 BC", HWY 74 | 37.60 | 1 |
| 1" I.P., FLUSH, TAG "RCE 24102", E'LY PL OF PARCEL 1 | 37.65 | 1 |
| STD DISK, IN WELL, STAMPED "18.00' RT K 50 656+41.88 POT", HWY 74 | 37.65 | 1 |
| STD DISK, IN WELL, STAMPED " K550 658+73.56 BC", HWY 74 | 37.70 | 1 |
| STD DISK, IN WELL, STAMPED "18.00' LT K550 671+43.21 EC", HWY 74 | 37.90 | 1 |
| NAIL & TAG "RCE 12116", R2W T55 R1W, S7 S8, S18 S17, AT CAWSTON AVE & FLORIDA AVE/HWY 74 | 38.00 | 1 |
| SPIKE & WASHER, "LS 3879", ON W'LY LINE PARCEL 1, CL IMP HWY 74 | 38.20 | 1 |
| STD DISK, IN WELL, STAMPED "18.00' LT K 50 689+10.83 BC", HWY 74 | 38.20 | 1 |
| SPIKE & TAG "RCE 13542", AT W'LY LINE PARCEL 9 & CL FLORIDA AVE/HWY 74 | 38.35 | 1 |
| SPIKE & TAG "RCE 13542", AT E'LY LINE PARCEL 9 & CL FLORIDA AVE/HWY 74 | 38.40 | 1 |
| STD DISK, IN WELL, STAMPED "701+68.74 POC", 3.16' N'LY OF CL IMP HWY 74 | 38.45 | 1 |
| STD DISK, IN WELL, STAMPED "9.00' LT K 50 701+68.99 EC", HWY 74 | 38.45 | 1 |
| SPIKE & WASHER, "LS 3879", EC CL IMP HWY 74 | 38.45 | 1 |
| 1" I.P., TAG "LS 3035", AT CL SANDERSON AVE & CL IMP FLORIDA AVE/HWY 74 | 38.50 | 1 |
| STD DISK, IN WELL, STAMPED "REPL SPIKE PER CR 97-18 1997" AT CL SANDERSON AVE & CL FLORIDA AVE./HWY 74 SPIKE, FLUSH, NO WASHER, SPIKE & TIN, FLUSH, | 38.50 | 1 |
| SPIKE & TIN, FLUSH, AT CL SANDERSON AVE, 4.09' N'LY OF CL FLORIDA AVE | 38.50 | 1 |
| STD DISK, IN WELL, STAMPED "SANDERSON-FLORIDA P.I. WC 30.01", | 38.50 | 1 |
| STD DISK, IN WELL, STAMPED "WC", 30.01' S'LY OF SPIKE & TIN | 38.50 | 1 |
| " I.P., PLASTIC PLUG "LS 3018", AT BC CL IMP FLORIDA AVE/HWY 74 | 38.60 | 1 |
| " I.P., PLASTIC PLUG "LS 3018", AT EC CL IMP FLORIDA AVE/HWY 74 | 38.65 | 1 |
| " I.P., PLASTIC PLUG "LS 3018", AT E'LY LINE PARCEL 2, 4.09' S'LY OF CL HWY 74 | 38.75 | 1 |
| SPIKE & TAG, AT E'LY LINE PARCEL 2 & CL FLORIDA AVENUE/HWY 74 | 38.75 | 1 |
| NAIL & FLASH, AT W'LY LINE PARCEL 1 & CL FLORIDA AVENUE/HWY 74 | 38.75 | 1 |
| STD DISK, IN WELL, STAMPED "CL IMP FLORIDA & KIRBY", AT CL KIRBY STREET, 4.09' S'LY OF CL FLORIDA AVE/HWY 74 | 39.00 | 1 |
| " I.P., DOWN 0.4', ILLEGIBLE TAG, AT CL KIRBY STREET & CL FLORIDA AVE/HWY 74 | 39.00 | 1 |
| NAIL & FLASH, FLUSH, AT CL KIRBY STREET & CL FLORIDA AVENUE/HWY 74 | 39.00 | 1 |
| " I.P.,NO TAG, DOWN 1.4', AT CL KIRBY ST, 8' N'LY OF CL FLORIDA AVE/HWY 74 | 39.00 | 1 |
| NAIL & TAG "RCE 12116", AT CL GILMORE STREET & CL FLORIDA AVE/HWY 74 | 39.20 | 1 |
| NAIL & TIN, FLUSH, NO TAG, | 39.20 | 1 |
| STD DISK, IN WELL, STAMPED "CL GILMORE P.I. IMP", AT CL IMP HWY 74 | 39.20 | 1 |
| NAIL & ILLEGIBLETAG, AT CL GILMORE STREET & CL IMP FLORIDA AVE/HWY 74 | 39.20 | 1 |
| " I.P., DOWN 1.0', AT CL GILMORE STREET, 8' N'LY OF CL FLORIDA AVE/HWY 74 | 39.20 | 1 |
| NAIL & LEAD, NO TAG, AT CL GILMORE ST, 39.95' SOUTH OF CL IMP HWY 74 | 39.20 | 1 |
| 1" I.P., TAG "RCE 12116", AT CL RAYMOND ST & CL FLORIDA AVE/HWY 74 | 39.40 | 1 |
| STD DISK, IN WELL, STAMPED "CL RAYMOND P.I. IMP", AT CL IMP HWY 74 | 39.40 | 1 |
| STATE HWY WELL MONUMENT, NO TAG, AT CL RAYMOND ST & CL IMP HWY 74 | 39.40 | 1 |
| 1" I.P., TAG "RCE 12116", AT CL RAYMOND ST, 11.09' N'LY OF CL FLORIDA AVE | 39.40 | 1 |
| STD DISK, IN WELL, STAMPED "RCE 12116 RESET 1997", AT CL LYON AVE | 39.60 | 1 |
| STD DISK, IN WELL, STAMPED "REPL " I.P. RCE 12116 1997", AT CL LYON AVE | 39.60 | 1 |
| 1" I.P., TAG "RCE 12116", AT CL LYON AVENUE & CL FLORIDA AVE/HWY 74 | 39.60 | 1 |
| 1" I.P., NO TAG | 39.60 | 1 |
| 1" I.P., TAG "RCE 12116", AT CL LYON AVE & CL IMP FLORIDA AVE/HWY 74 | 39.60 | 1 |
| NAIL & FLASH, AT CL LYON AVE & CL CONSTRUCTION FLORIDA AVENUE/HWY 74 | 39.60 | 1 |
| 1" I.P., TAG "RCE 12116", | 39.60 | 1 |
| STD DISK, IN WELL, STAMPED "REPL 1" I.P. RCE 27740 1997", AT CL ELK ST | 39.80 | 1 |
| 1" I.P., TAG "RCE 21740", AT CL ELK STREET & CL FLORIDA AVENUE/HWY 74 | 39.80 | 1 |
| PK NAIL, AT CL ELK AVENUE & CL IMPROVEMENT FLORIDA AVENUE/HWY 74 | 39.80 | 1 |
| IRON PIPE, AT HAMILTON AVENUE & FLORIDA AVENUE/HWY 74 | 40.00 | 1 |
| STD DISK, IN WELL, STAMPED "REPL NAIL 1997", AT CL PALM AVE & HWY 74 | 39.80 | 1 |

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

ABBREVIATIONS:

- N'LY = NORTHERLY
- S'LY = SOUTHERLY
- W'LY = WESTERLY
- E'LY = EASTERLY
- CL = CENTERLINE

SURVEY MONUMENTS (PROTECT IN PLACE)

| SURVEY MONUMENT DESCRIPTION | POST MILE | QUANTITY (N) |
|---|-----------|--------------|
| NAIL, AT ORIGINAL CL PALM AVENUE & CL FLORIDA AVENUE/HWY 74 | 40.10 | 1 |
| CDOH BOLT, FLUSH, AT PALM AVENUE & FLORIDA AVENUE/HWY 74 SPIKE, | 40.10 | 1 |
| " I.P., AT CL PALM AVENUE & S'LY SIDE FLORIDA AVENUE/HWY 74 | 40.10 | 1 |
| STD DISK, IN WELL, STAMPED "REPL N&T RCE 12116 1997", AT TAHQUITZ AVE | 40.20 | 1 |
| 1" I.P., TAG "RCE 12116", AT ORIGINAL CL TAHQUITZ AVE & FLORIDA AVE/HWY 74 | 40.20 | 1 |
| NAIL & TAG "RCE 12116", | 40.20 | 1 |
| 1" I.P., AT TAHQUITZ AVENUE & FLORIDA AVENUE/HWY 74 | 40.20 | 1 |
| "I.P.,NO TAG, AT CL TAHQUITZ AVENUE, AT N'LY SIDE FLORIDA AVENUE/HWY 74 | 40.20 | 1 |
| STD DISK, IN WELL, STAMPED "REPL SPIKE 1997", AT CL LAS LUNAS ST | 40.25 | 1 |
| SPIKE, DOWN 0.4', AT CL LAS LUNAS STREET & FLORIDA AVENUE/HWY 74 | 40.25 | 1 |
| "I.P.,NO TAG, AT CL LAS TUNAS STREET, AT N'LY SIDE FLORIDA AVENUE/HWY 74 | 40.25 | 1 |
| STD DISK, IN WELL, STAMPED "REPL NAIL 1997", AT GILBERT ST & HWY 74 | 40.30 | 1 |
| NAIL, DOWN 0.2', NO TAG, | 40.30 | 1 |
| "I.P., AT CL GILBERT STREET, AT N'LY SIDE FLORIDA AVENUE/HWY 74 | 40.30 | 1 |
| "I.P., AT CL GILBERT STREET, AT S'LY SIDE FLORIDA AVENUE/HWY 74 | 40.30 | 1 |
| C-NAILS WITH CALTRANS WASHERS AS TIES FOR POINT ON MH, AT RAMONA ST | 40.40 | 1 |
| SPIKE & TAG, CROSS TIES ON MH, AT CL RAMONA ST & CL FLORIDA AVENUE | 40.40 | 1 |
| STD DISK, IN WELL, STAMPED "REPL NAIL 1997", ALESSANDRO ST & HWY 74 | 40.45 | 1 |
| NAIL, AT CL ALESSANDRO STREET & CL FLORIDA AVENUE/HWY 74 | 40.45 | 1 |
| 2" I.P., AT BUENA VISTA STREET & FLORIDA AVENUE/HWY 74 | 40.80 | 1 |
| SPIKE, AT SANTA FE STREET & FLORIDA AVENUE/HWY 74 | 41.10 | 1 |
| SPIKE, AT LAURSEN STREET & FLORIDA AVENUE/HWY 74 | 41.20 | 1 |
| " I.P., DOWN 0.3', AT CL SAN JACINTO STREET & CL FLORIDA AVENUE/HWY 74 | 41.30 | 1 |
| NAIL & FLASH, AT CL SAN JACINTO STREET & CL FLORIDA AVENUE/HWY 74 | 41.30 | 1 |
| SPIKE, AT CL SAN JACINTO STREET, AT S'LY SIDE FLORIDA AVENUE/HWY 74 | 41.30 | 1 |
| 1" I.P., IN WELL, AT CL SAN JACINTO AVE, AT S'LY SIDE FLORIDA AVENUE/HWY 74 | 41.30 | 1 |
| NAIL & FLASH, AT CL GIRARD STREET & CL FLORIDA AVENUE/HWY 74 | 41.60 | 1 |
| SPIKE & TAG | 41.60 | 1 |
| " I.P., IN WELL, AT CL GIRARD STREET, AT N'LY SIDE FLORIDA AVENUE/HWY 74 | 41.60 | 1 |
| " I.P., AT CL GIRARD STREET, AT N'LY SIDE FLORIDA AVENUE/HWY 74 | 41.60 | 1 |
| NAIL & TAG "RCE 12116", | 41.60 | 1 |
| SPIKE, AT CL GIRARD STREET, AT N'LY SIDE FLORIDA AVENUE/HWY 74 | 41.60 | 1 |
| BRASS CAP, FLUSH, "RCE 12116", AT CL GIRARD ST, 50' N'LY OF CL FLORIDA AVE | 41.60 | 1 |
| " I.P., AT CL MAYFLOWER STREET, AT N'LY SIDE FLORIDA AVENUE/HWY 74 | 41.70 | 1 |
| STD DISK, IN WELL, STAMPED "50' N FLA-MYFLR", AT CL MAYFLOWER ST | 41.70 | 1 |
| PK NAIL & ILLEGIBLE TAG, AT CL FLORIDA AVENUE/HWY 74 | 41.70 | 1 |
| 1" I.P., IN WELL, TAG "RCE 12116", AT CL YALE ST & CL FLORIDA AVE/HWY 74 | 41.80 | 1 |
| 1" I.P., NO TAG, | 41.80 | 1 |
| NAIL & FLASH | 41.80 | 1 |
| STD DISK, IN WELL, STAMPED "FLA-COL P.I.", AT CL COLUMBIA ST | 42.10 | 1 |
| BRASS CAP, IN WELL, "RCE 12116", AT CL COLUMBIA ST & CL FLORIDA AVE | 42.10 | 1 |
| 1" I.P.,NO TAG, | 42.10 | 1 |
| " I.P., IN WELL, AT CL COLUMBIA STREET, 50' N'LY OF CL FLORIDA AVE | 42.10 | 1 |
| BRASS CAP, IN WELL, "RCE 12116", AT CL CORNELL ST & CL FLORIDA AVE | 42.35 | 1 |
| " I.P., IN WELL, TAG "RCE 12116", | 42.35 | 1 |
| SPIKE & TAG, "RE 8094", | 42.35 | 1 |
| SPIKE & TAG, "RE 8094", AT EAST TRACT LINE & CL FLORIDA AVE/HWY 74 | 42.40 | 1 |
| 1" I.P., IN WELL, AT CL LOS FLORES DRIVE, 50' N'LY OF CL FLORIDA AVE | 42.50 | 1 |
| 1" I.P., IN WELL, TAG "RCE 12116", AT CL DARTMOUTH ST & FLORIDA AVE/HWY 74 | 42.60 | 1 |
| 1" I.P., TAG "RCE 12116", AT CL DARTMOUTH ST & CL FLORIDA AVE/HWY 74 | 42.60 | 1 |

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

SUMMARY OF QUANTITIES

Q-2

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 8 | 37 |

REGISTERED CIVIL ENGINEER *IAD* DATE 12-3-15

PLANS APPROVAL DATE 12-7-15

REGISTERED PROFESSIONAL ENGINEER
 IYAD NAMI
 No. C74762
 Exp. 12-31-18
 CIVIL

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|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 9 | 37 |

Dilaraman. 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

DILARA H. ZAMAN
No. E18356
Exp. 6-30-16
ELECTRICAL

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

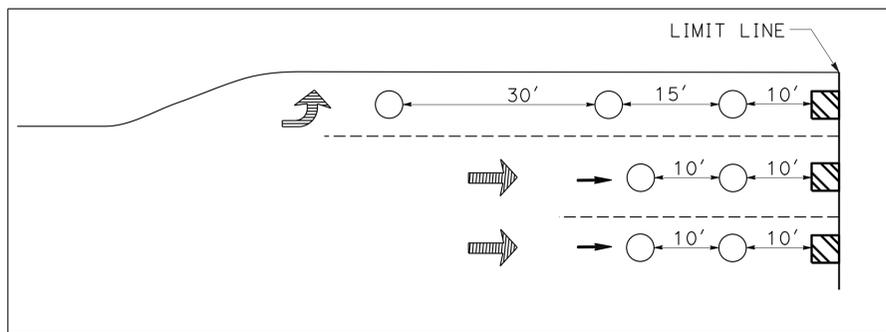
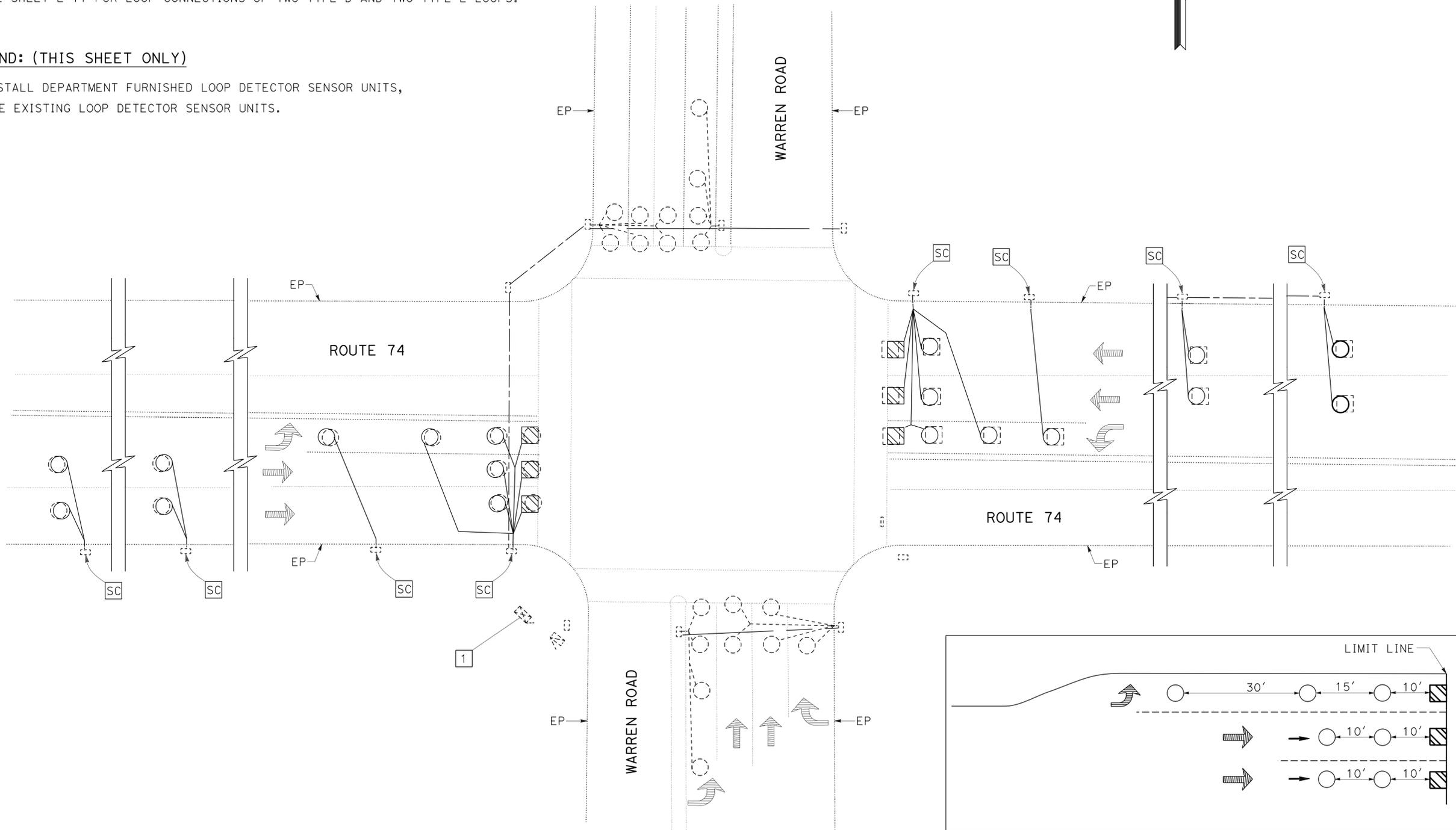
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NOTES: (E-1, E-2 & E-4 THRU E-9)

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST VERIFY ALL LOOP DETECTORS.
2. REPLACE ALL LOOPS DAMAGED BY PAVEMENT DIGOUT.
3. NEW DETECTOR LOOPS MUST BE INSTALLED AT LOCATION OF EXISTING LOOPS.
4. EXISTING LOOPS THAT ARE TO BE REPLACED MUST BE **AB**.
5. SEE SHEET E-11 FOR LOOP CONNECTIONS OF TWO TYPE D AND TWO TYPE E LOOPS.

LEGEND: (THIS SHEET ONLY)

- 1** INSTALL DEPARTMENT FURNISHED LOOP DETECTOR SENSOR UNITS,
- RS** THE EXISTING LOOP DETECTOR SENSOR UNITS.



LOCATION 1

TYPICAL LOOP DETECTOR SETBACKS

INDUCTIVE LOOP DETECTOR (LS)

NO SCALE

E-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | |
|--|-----------------------|----------------|----------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | DESIGNED BY | REVISOR |
| Caltrans ELECTRICAL DESIGN A | DAVID GONZALEZ | DAVID GONZALEZ | DILARA ZAMAN |
| | DAVID GONZALEZ | CHECKED BY | DATE REVISOR |
| | | | DAVID GONZALEZ |

USERNAME => s125726
DGN FILE => 0815000125ua001.dgn



UNIT 2291

PROJECT NUMBER & PHASE

08150001251

LAST REVISION DATE PLOTTED => 11-DEC-2015
12-03-15 TIME PLOTTED => 10:29

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 11 | 37 |

Dilara Zaman 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

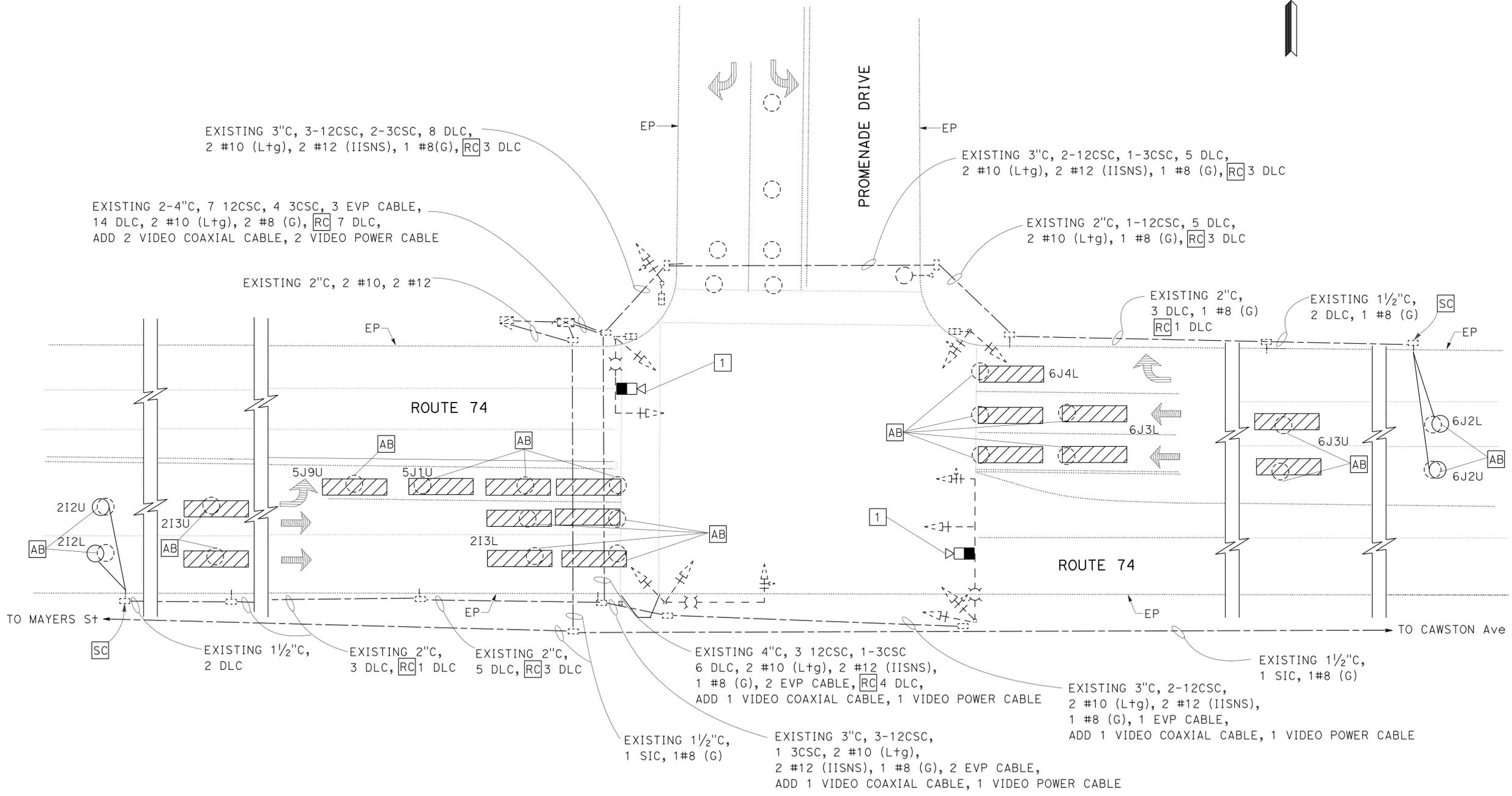
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LEGEND: (THIS SHEET ONLY)

1 INSTALL VIVDS CAMERA AS PER DETAILS ON SHEET RSP ES-7R.

ABBREVIATIONS:

EVP EMERGENCY VEHICLE PRE-EMPTION



LOCATION 1

MODIFY SIGNAL
NO SCALE **E-3**

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | |
|--|-----------------------|--------------|----------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | DESIGNED BY | REVISOR |
| Caltrans ELECTRICAL DESIGN A | DAVID GONZALEZ | DILARA ZAMAN | DAVID GONZALEZ |
| | CHECKED BY | DATE | REVISION |
| | | | |

LAST REVISION DATE PLOTTED => 11-DEC-2015 12-03-15 TIME PLOTTED => 10:29

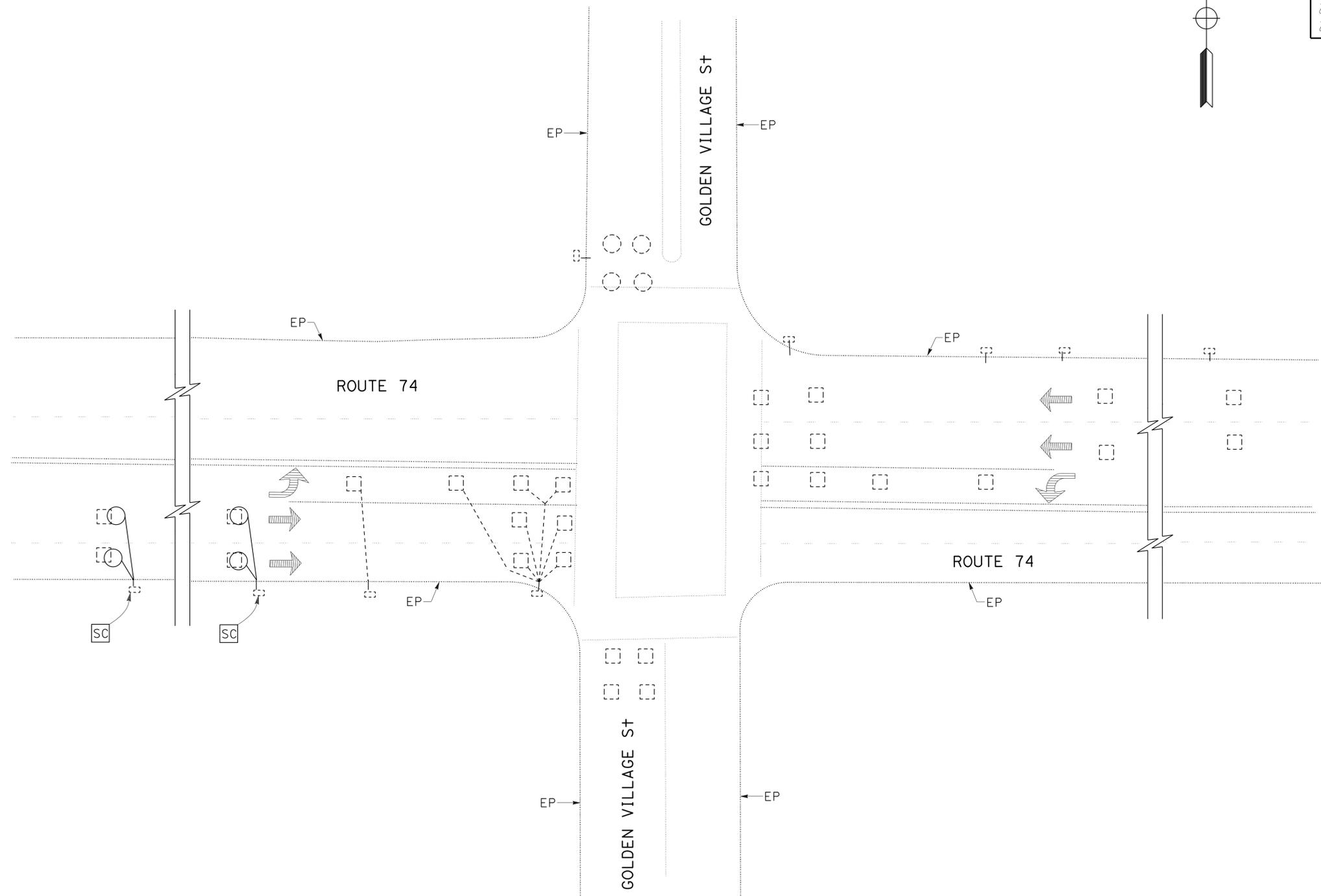
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 08 | Riv | 74 | 36.5/42.6 | 12 | 37 |

Dilara Zaman 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

DILARA H. ZAMAN
No. E18356
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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LOCATION 3

INDUCTIVE LOOP DETECTOR (LS)

NO SCALE

E-4

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | |
|--|-----------------------|------------------------|----------------|
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| Caltrans ELECTRICAL DESIGN A | DAVID GONZALEZ | CHECKED BY | DAVID GONZALEZ |
| | | | |
| | | | |

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 08 | Riv | 74 | 36.5/42.6 | 13 | 37 |

Dilara Zaman 12-3-15
 REGISTERED ELECTRICAL ENGINEER DATE

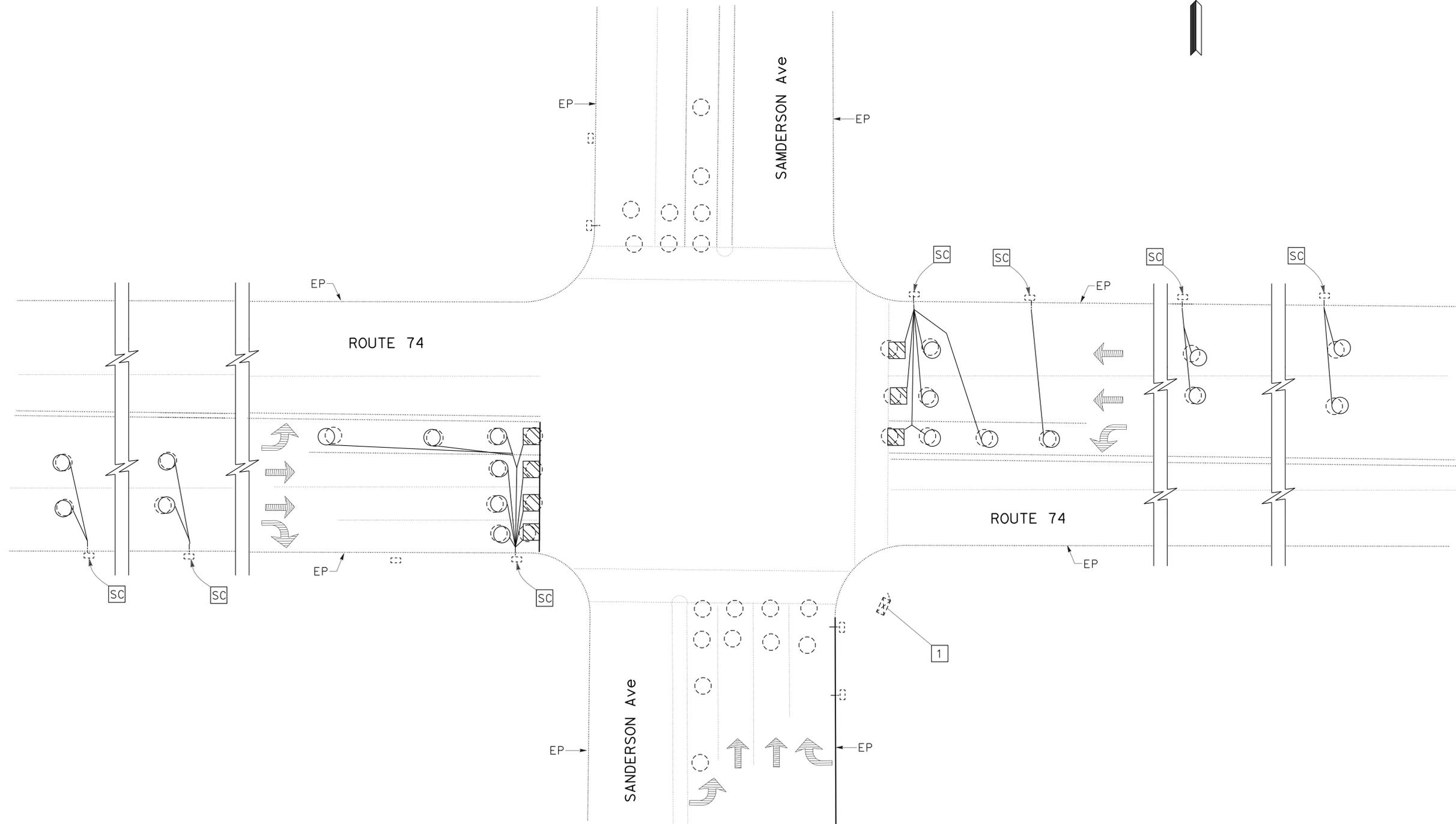
12-7-15
 PLANS APPROVAL DATE

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LEGEND: (SHEETS E-5 THRU E-9)

- 1 INSTALL DEPARTMENT FURNISHED LOOP DETECTOR SENSOR UNITS,
- RS THE EXISTING LOOP DETECTOR SENSOR UNITS.



LOCATION 4

INDUCTIVE LOOP DETECTOR (LS)

NO SCALE

E-5

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | | | |
|--|--|-------------------------------|-----------|-----------|-----------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | REVISIONS | REVISIONS | REVISIONS | REVISIONS | REVISIONS |
| Caltrans ELECTRICAL DESIGN A | | | | | |
| FUNCTIONAL SUPERVISOR DAVID GONZALEZ | CALCULATED-DESIGNED BY DAVID GONZALEZ | DESIGNED BY DAVID GONZALEZ | REVISIONS | REVISIONS | REVISIONS |
| | | | | | |

USERNAME => s125726
 DGN FILE => 0815000125ua005.dgn

RELATIVE BORDER SCALE
 IS IN INCHES



UNIT 2291

PROJECT NUMBER & PHASE

08150001251

BORDER LAST REVISED 7/2/2010

LAST REVISION DATE PLOTTED => 11-DEC-2015
 12-03-15 TIME PLOTTED => 10:29

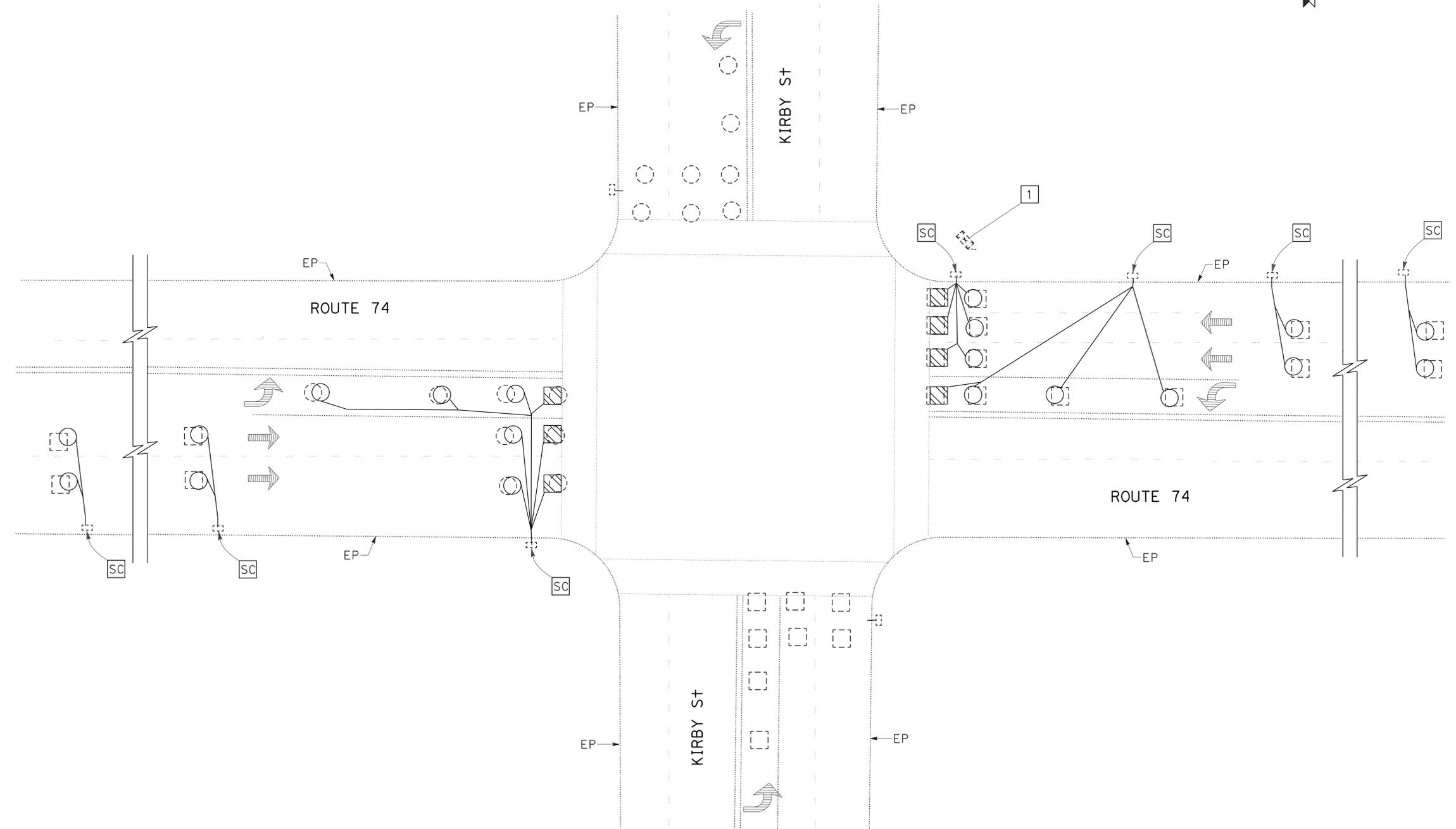
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|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 14 | 37 |

Dilara Zaman 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

DILARA H. ZAMAN
No. E18356
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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LOCATION 5

INDUCTIVE LOOP DETECTOR (LS)

NO SCALE

E-6

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | |
|--|-----------------------|------------------------|----------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | REVISOR |
| Caltrans ELECTRICAL DESIGN A | DAVID GONZALEZ | CHECKED BY | DAVID GONZALEZ |
| | | | DATE REVISOR |
| | | | DATE REVISOR |

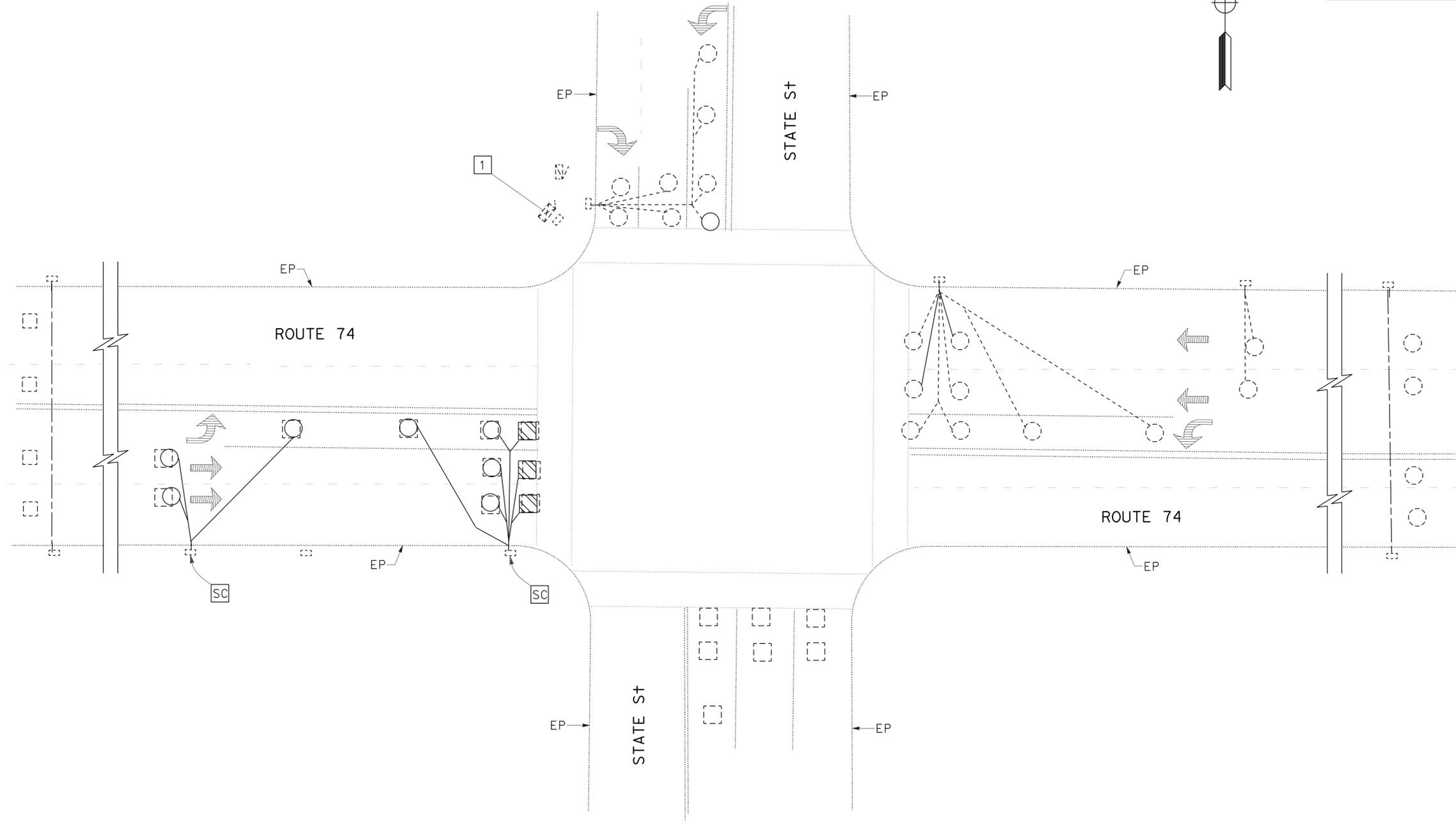
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 08 | Riv | 74 | 36.5/42.6 | 15 | 37 |

Dilarazaman 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DILARA
H. ZAMAN
No. E18356
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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LOCATION 6

INDUCTIVE LOOP DETECTOR (LS)

NO SCALE

E-7

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | |
|--|-----------------------|----------------|----------------|
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| Caltrans ELECTRICAL DESIGN A | DAVID GONZALEZ | DAVID GONZALEZ | DILARA ZAMAN |
| | | CHECKED BY | DATE REVISED |
| | | | DAVID GONZALEZ |

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
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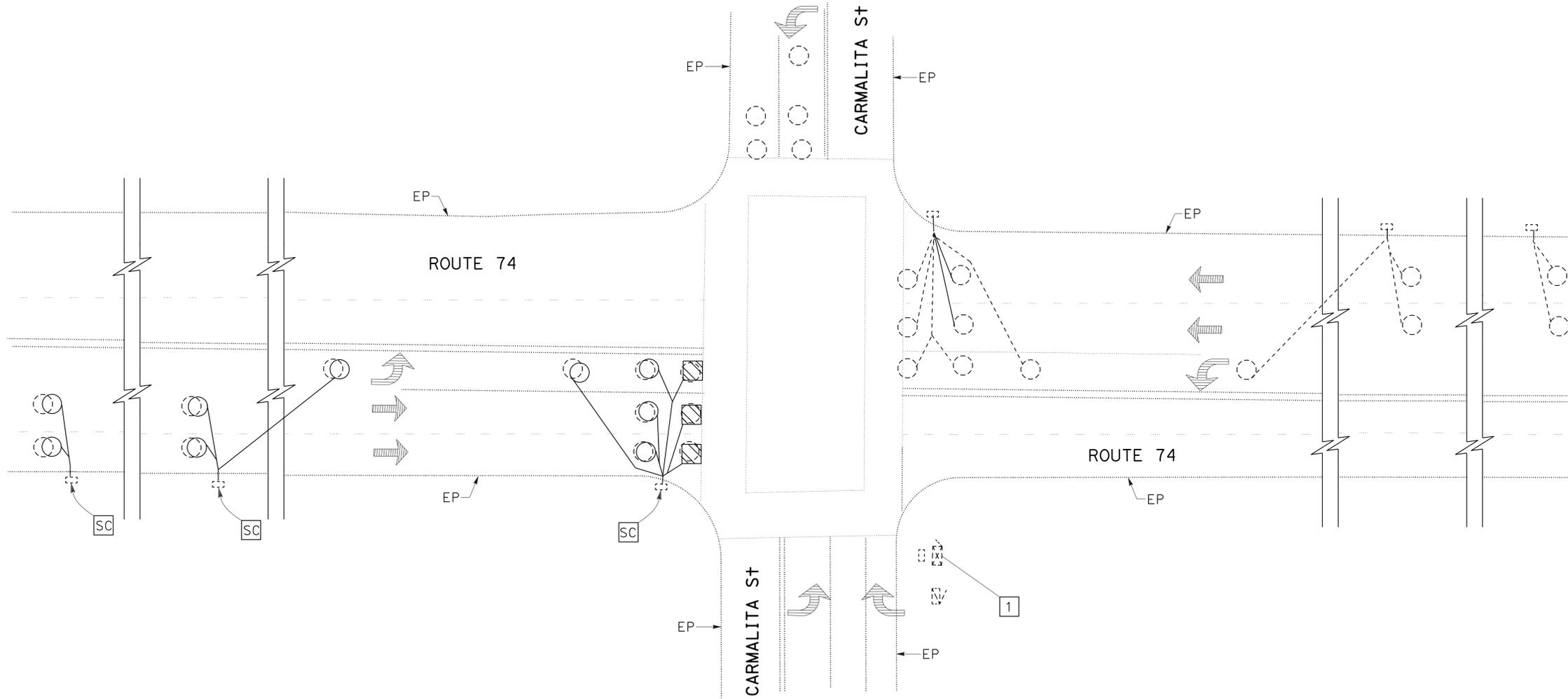
Dilara Zaman 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

DILARA H. ZAMAN
No. E18356
Exp. 6-30-16
ELECTRICAL

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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LOCATION 7

INDUCTIVE LOOP DETECTOR (LS)

NO SCALE

E-8

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | |
|--|-----------------------|------------------------|----------------|
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| Caltrans ELECTRICAL DESIGN A | DAVID GONZALEZ | CHECKED BY | DAVID GONZALEZ |
| | | | DATE REVISION |

BORDER LAST REVISED 7/2/2010

USERNAME => s125726
DGN FILE => 0815000125ua008.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT 2291

PROJECT NUMBER & PHASE

08150001251

LAST REVISION | DATE PLOTTED => 11-DEC-2015
12-03-15 | TIME PLOTTED => 10:29

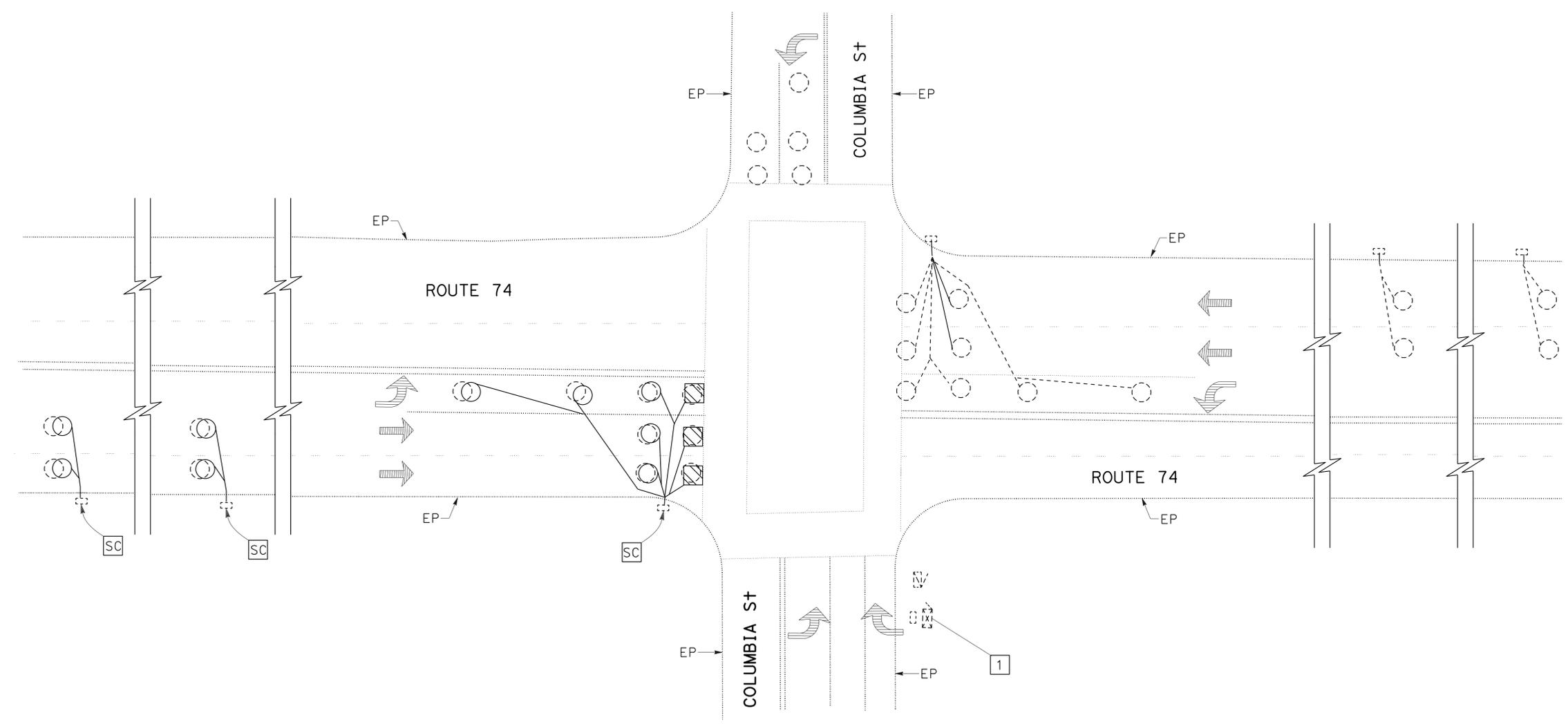
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 08 | Riv | 74 | 36.5/42.6 | 17 | 37 |

Dilara Zaman, 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

DILARA H. ZAMAN
No. E18356
Exp. 6-30-16
ELECTRICAL

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LOCATION 8

INDUCTIVE LOOP DETECTOR (LS)
NO SCALE **E-9**

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR ELECTRICAL WORK ONLY

| | | | |
|--|-----------------------|------------------------|----------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED/DESIGNED BY | REVISOR BY |
| Caltrans ELECTRICAL DESIGN A | DAVID GONZALEZ | DAVID GONZALEZ | DAVID GONZALEZ |
| | | CHECKED BY | DATE REVISED |
| | | | |

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 18 | 37 |

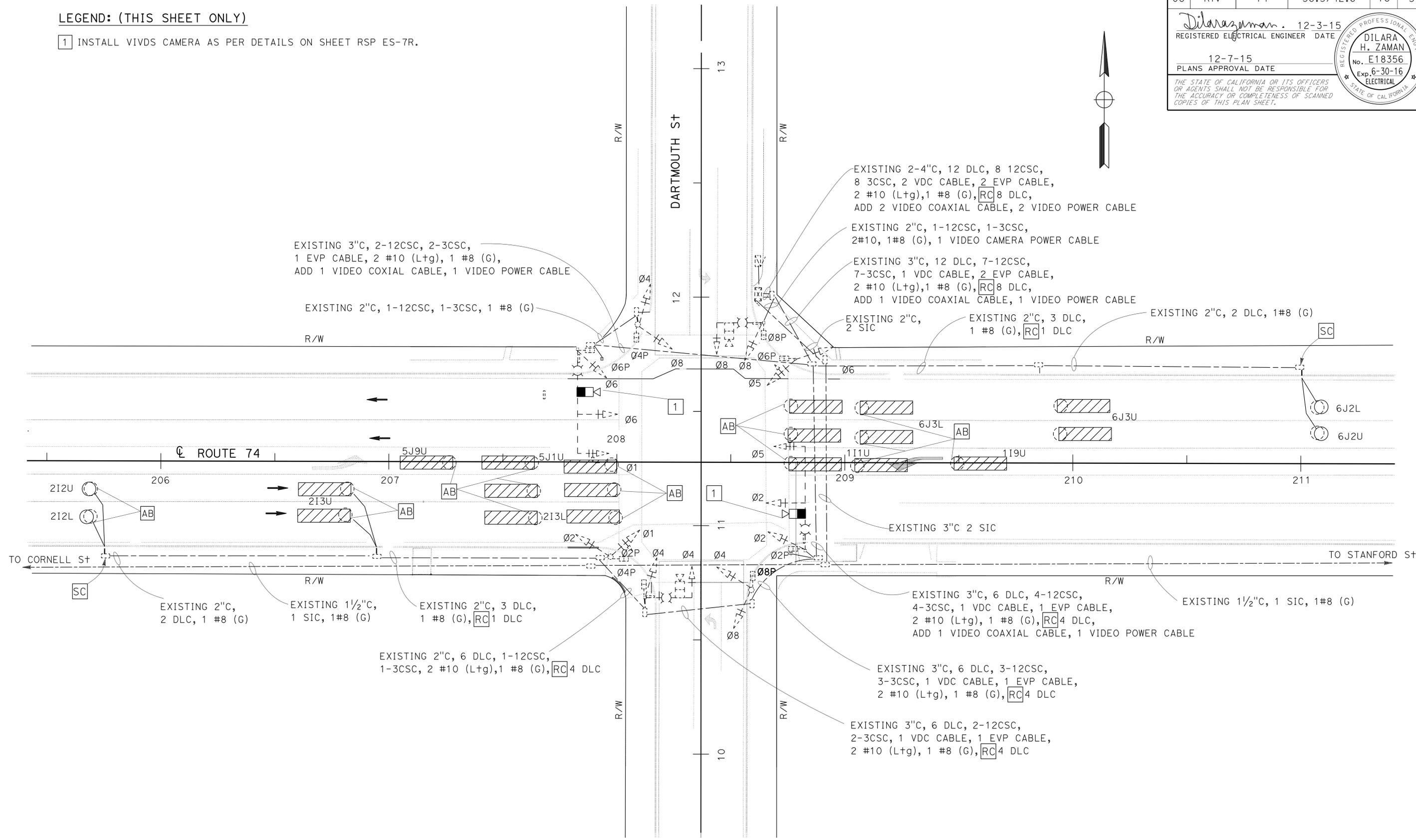
Dilara Zaman, 12-3-15
 REGISTERED ELECTRICAL ENGINEER DATE
 12-7-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 DILARA H. ZAMAN
 No. E18356
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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LEGEND: (THIS SHEET ONLY)

1 INSTALL VIVDS CAMERA AS PER DETAILS ON SHEET RSP ES-7R.



LOCATION 2

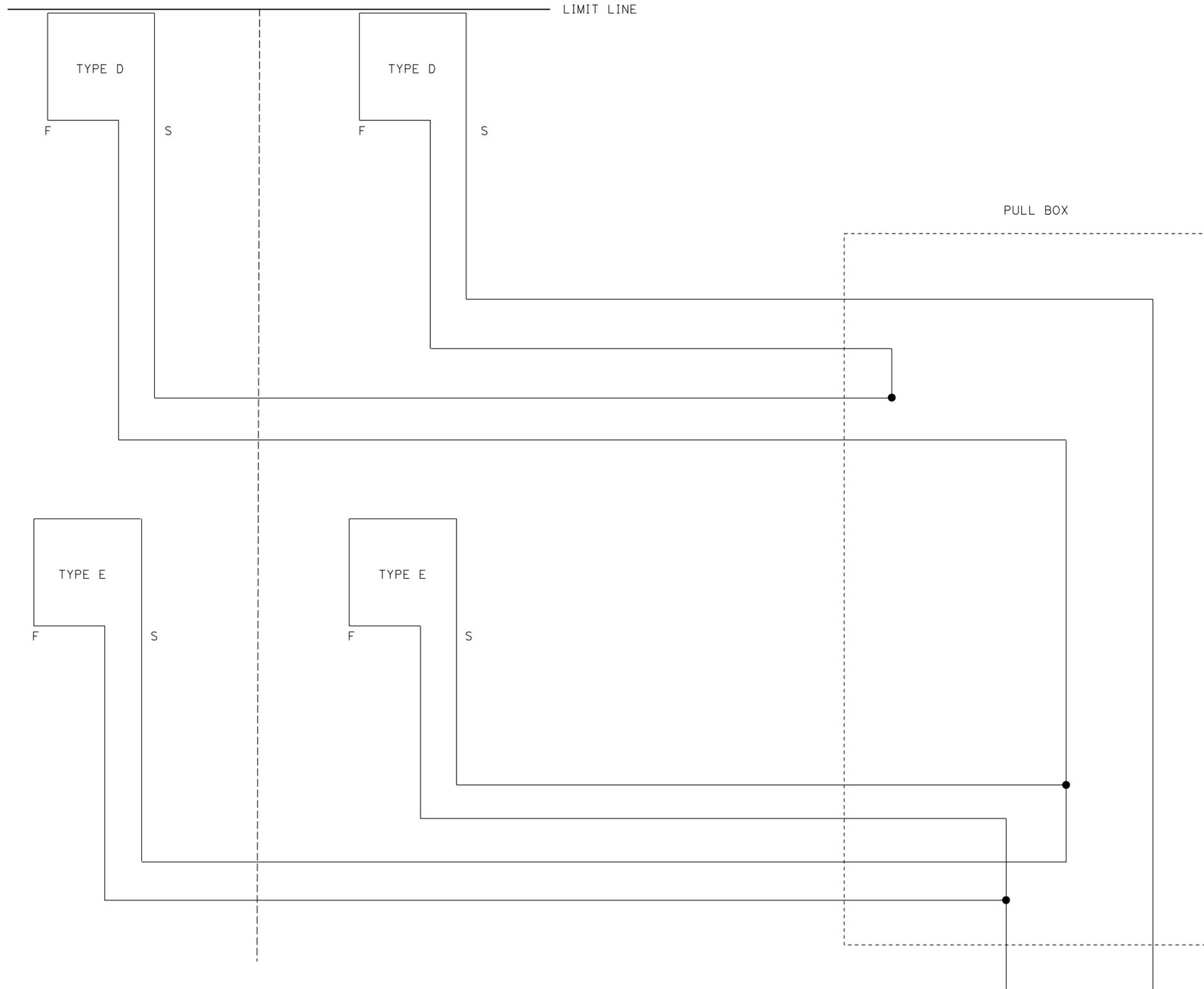
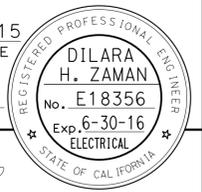
MODIFY SIGNAL
 SCALE: 1" = 20' **E-10**

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| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 08 | Riv | 74 | 36.5/42.6 | 19 | 37 |

Dilara Zaman 12-3-15
 REGISTERED ELECTRICAL ENGINEER DATE
 12-7-15
 PLANS APPROVAL DATE

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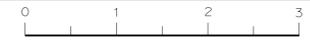


LOOP CONNECTIONS FOR TWO D AND TWO E LOOPS

ELECTRICAL DETAILS E-11

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

| | | |
|--|----------------|------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | REVISOR | DATE |
| Caltrans ELECTRICAL DESIGN A | DILARA ZAMAN | |
| FUNCTIONAL SUPERVISOR | DAVID GONZALEZ | |
| CALCULATED/DESIGNED BY | CHECKED BY | |
| | DAVID GONZALEZ | |
| REVISOR | DATE | |
| DAVID GONZALEZ | | |



| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 20 | 37 |

Dilara Zaman 12-3-15
REGISTERED ELECTRICAL ENGINEER DATE

12-7-15
PLANS APPROVAL DATE

DILARA H. ZAMAN
No. E18356
Exp. 6-30-16
ELECTRICAL

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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

NOTE:

1. THE QUANTITIES SHOWN IN THE TABLE ARE NOT SEPARATE PAY ITEMS, FOR INFORMATION ONLY. FOR COMPLETE ELECTRICAL WORK, SEE ELECTRICAL PLAN SHEETS.

INDUCTIVE LOOP DETECTOR (LS)

| SHEET No. | TYPE E LOOPS | TYPE D LOOPS |
|--------------|--------------|--------------|
| | EA | EA |
| E-1 | 18 | 6 |
| E-2 | 26 | 6 |
| E-4 | 4 | — |
| E-5 | 19 | 7 |
| E-6 | 19 | 7 |
| E-7 | 7 | 3 |
| E-8 | 9 | 3 |
| E-9 | 9 | 3 |
| TOTAL | 111 | 35 |

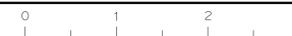
MODIFY SIGNAL

| SHEET No. | TYPE E LOOPS | TYPE D LOOPS | VIDEO CAMERA | VIDEO COAXIAL CABLE | VIDEO POWER CABLE |
|--------------|--------------|--------------|--------------|---------------------|-------------------|
| | EA | EA | EA | LF | LF |
| E-3 | 4 | — | 2 | 500 | 500 |
| E-10 | 4 | — | 2 | 500 | 500 |
| TOTAL | 8 | — | 4 | 1000 | 1000 |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A
 FUNCTIONAL SUPERVISOR DAVID GONZALEZ
 CALCULATED/DESIGNED BY CHECKED BY
 DILARA ZAMAN DAVID GONZALEZ
 REVISED BY DATE REVISED

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

ELECTRICAL QUANTITIES E-12



| | |
|------------|--|
| | 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 |
| P, PL | PLATE |
| P/L | PROPERTY LINE |
| PM | POST MILE, TIME FROM NOON TO MIDNIGHT |
| PN | PAVING NOTCH |
| POC | POINT OF HORIZONTAL CURVE |
| POT | POINT OF TANGENT |
| POVC | POINT OF VERTICAL CURVE |
| PP | PIPE PILE, PLASTIC PIPE, POWER POLE |
| PPL | PREFORMED PERMEABLE LINER |
| PPP | PERFORATED PLASTIC PIPE |
| PRC | POINT OF REVERSE CURVE |
| PRF | PAVEMENT REINFORCING FABRIC |
| PRVC | POINT OF REVERSE VERTICAL CURVE |
| PS&E | PLANS, SPECIFICATIONS AND ESTIMATES |
| PS, P/S | PRESTRESSED |
| PSP | PERFORATED STEEL PIPE |
| PT | POINT OF TANGENCY |
| PVC | POLYVINYL CHLORIDE |
| Pvmt | PAVEMENT |
| | Q |
| Qty | QUANTITY |
| | R |
| R | RADIUS |
| R & D | REMOVE AND DISPOSE |
| R & S | REMOVE AND SALVAGE |
| R/C | RATE OF CHANGE |
| RCA | REINFORCED CONCRETE ARCH |
| RCB | REINFORCED CONCRETE BOX |
| RCP | REINFORCED CONCRETE PIPE |
| RCPA | REINFORCED CONCRETE PIPE ARCH |
| Rd | ROAD |
| Reinf | REINFORCED, REINFORCEMENT, REINFORCING |
| Rel | RELOCATE |
| Repl | REPLACEMENT |
| Ret | RETAINING |
| Rev | REVISED, REVISION |
| Rdwy | ROADWAY |
| RHMA | RUBBERIZED HOT MIX ASPHALT |
| Riv | RIVER |
| RM | ROAD-MIXED |
| RP | RADIUS POINT, REFERENCE POINT |
| RR | RAILROAD |
| RSP | ROCK SLOPE PROTECTION, REVISED STANDARD PLAN |
| Rt | RIGHT |
| Rte | ROUTE |
| RW | REDWOOD, RETAINING WALL |
| R/W | RIGHT OF WAY |
| Rwy | RAILWAY |

| | |
|-------|----------------------------------|
| | S |
| S | SOUTH, SUPPLEMENT |
| SAE | STRUCTURE APPROACH EMBANKMENT |
| Salv | SALVAGE |
| SAPP | STRUCTURAL ALUMINUM PLATE PIPE |
| SB | SOUTHBOUND |
| SC | SAND CUSHION |
| SCSP | SLOTTED CORRUGATED STEEL PIPE |
| SD | STORM DRAIN |
| Sec | SECOND, SECTION |
| Sep | SEPARATION |
| SG | SUBGRADE |
| Shld | SHOULDER |
| Sht | SHEET |
| Sim | SIMILAR |
| ± | STATION LINE |
| SM | SELECTED MATERIAL |
| Spec | SPECIAL, SPECIFICATIONS |
| SPP | SLOTTED PLASTIC PIPE |
| SS | SLOPE STAKE |
| SSBM | STRAP AND SADDLE BRACKET METHOD |
| SSD | STRUCTURAL SECTION DRAIN |
| SSPA | STRUCTURAL STEEL PLATE ARCH |
| SSPP | STRUCTURAL STEEL PLATE PIPE |
| SSPPA | STRUCTURAL STEEL PLATE PIPE ARCH |
| SSRP | STEEL SPIRAL RIB PIPE |
| St | STREET |
| Sta | STATION |
| STBB | SINGLE THRIE BEAM BARRIER |
| Std | STANDARD |
| Str | STRUCTURE |
| Surf | SURFACING |
| SW | SIDEWALK, SOUND WALL |
| Swr | SEWER |
| Sym | SYMMETRICAL |
| S4S | SURFACE 4 SIDES |
| | T |
| T | SEMI-TANGENT |
| Tan | TANGENT |
| TBB | THRIE BEAM BARRIER |
| Tbr | TIMBER |
| TC | TOP OF CURB |
| TCB | TRAFFIC CONTROL BOX |
| TCE | TEMPORARY CONSTRUCTION EASEMENT |
| 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 |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 08 | Riv | 74 | 36.5/42.6 | 21 | 37 |

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 12-7-15

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

TABLE A

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

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

TABLE B

| SYMBOL USED | DEFINITIONS |
|--------------------------|------------------------|
| ksi | KIPS PER SQUARE INCH |
| ksf | KIPS PER SQUARE FOOT |
| psi | POUNDS PER SQUARE INCH |
| psf | POUNDS PER SQUARE FOOT |
| lb/ft ³ , pcf | POUNDS PER CUBIC FOOT |
| tsf | TONS PER SQUARE FOOT |
| mph, MPH * | MILES PER HOUR |
| ∅ | NOMINAL DIAMETER |
| oz | OUNCE |
| lb | POUND |
| 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.

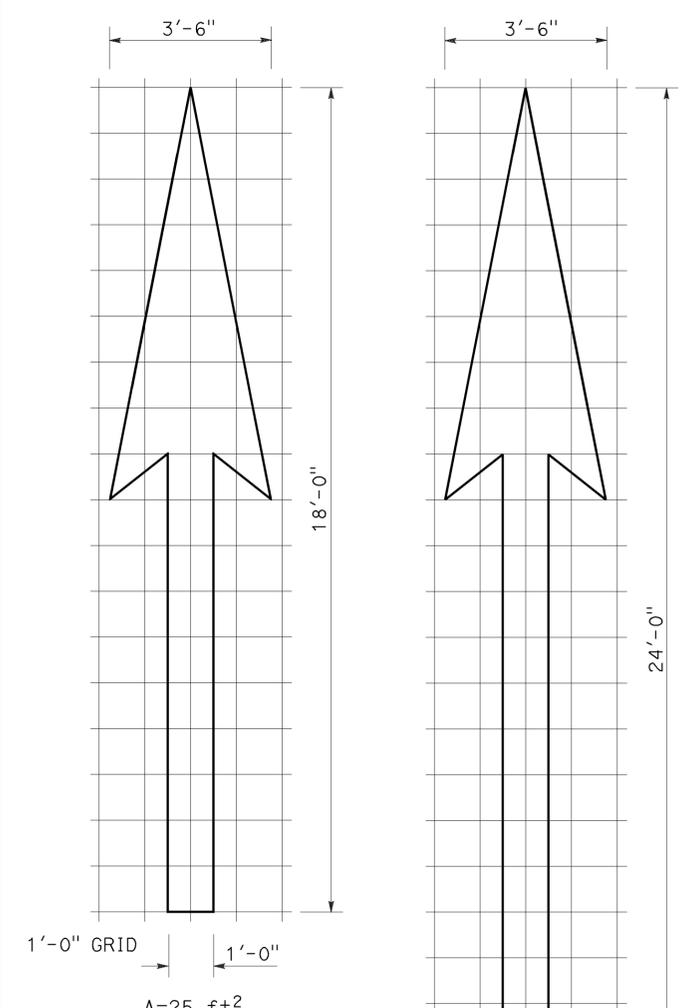
2010 REVISED STANDARD PLAN RSP A10B

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 22 | 37 |

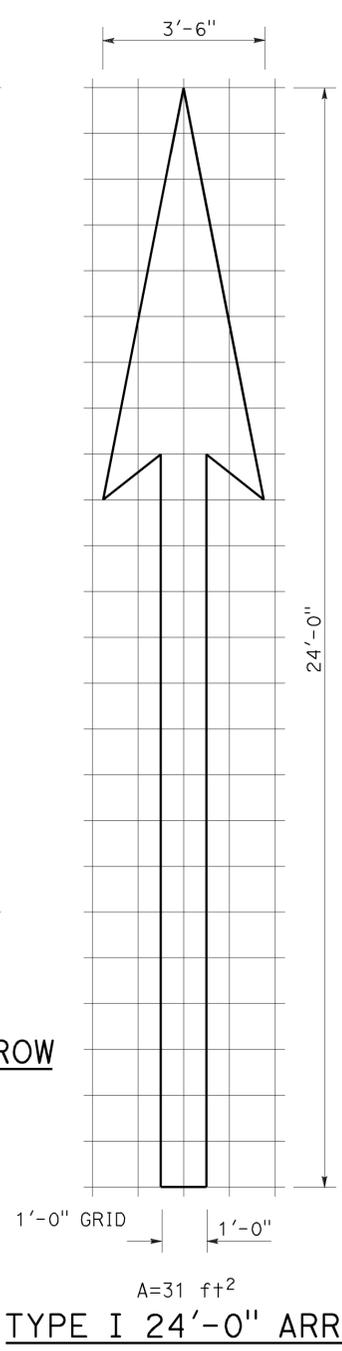
Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

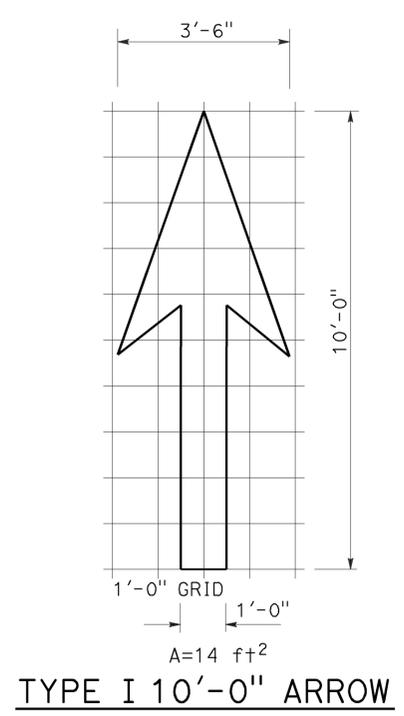
TO ACCOMPANY PLANS DATED 12-7-15



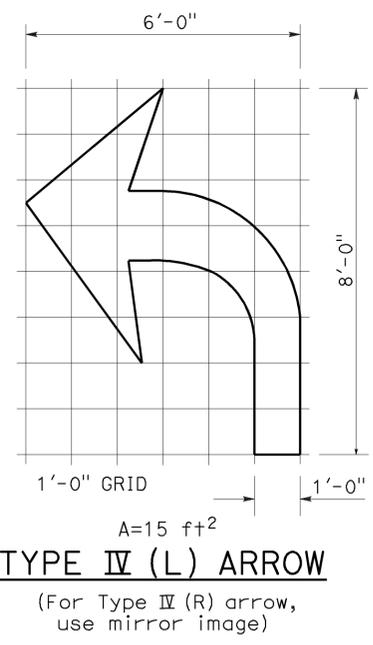
TYPE I 18'-0" ARROW



TYPE I 24'-0" ARROW

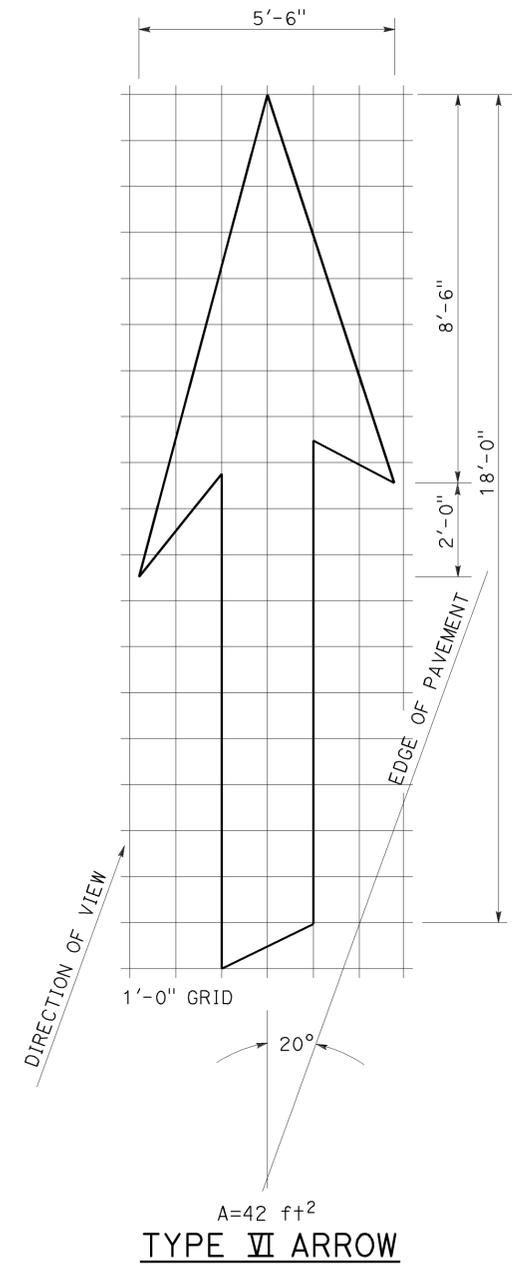


TYPE I 10'-0" ARROW



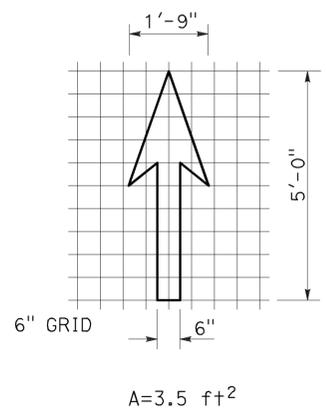
TYPE IV (L) ARROW

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

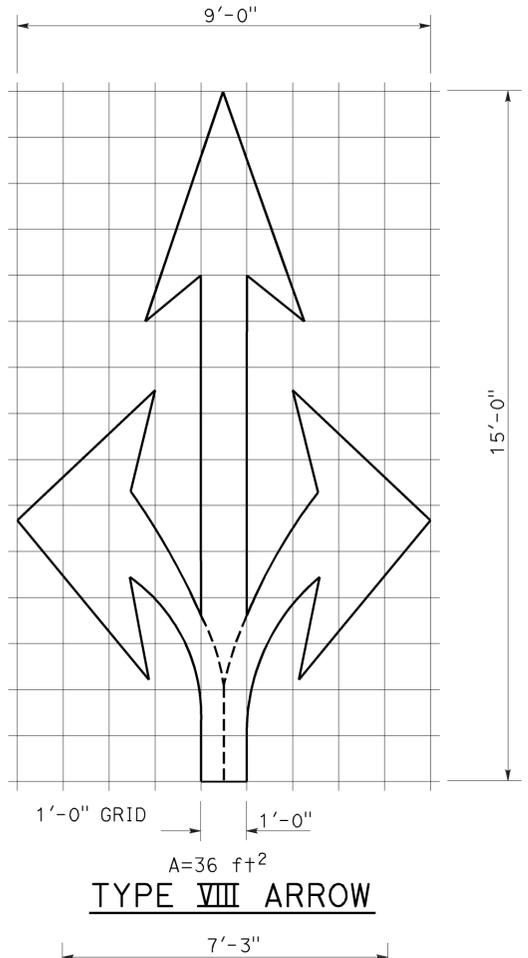


TYPE VI ARROW

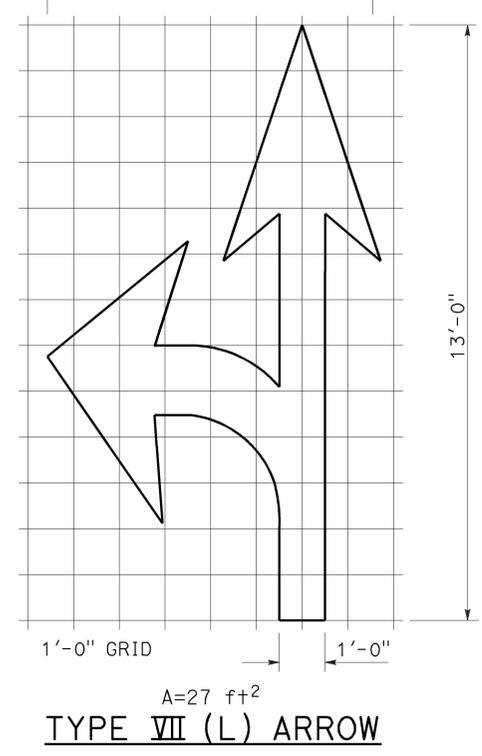
Right lane drop arrow
(For left lane, use mirror image)



BIKE LANE ARROW

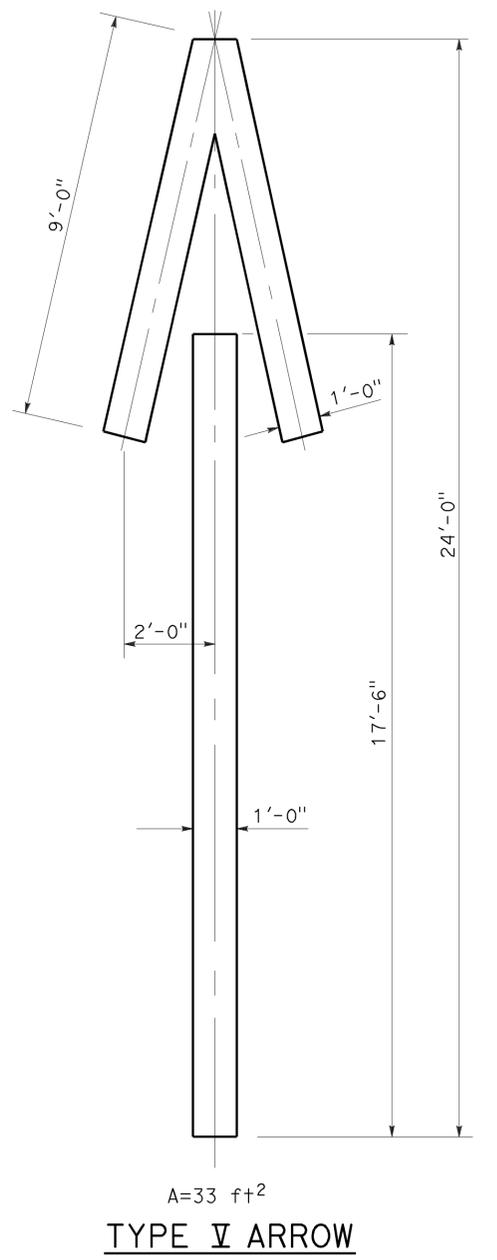


TYPE VIII ARROW



TYPE VII (L) ARROW

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



TYPE V ARROW

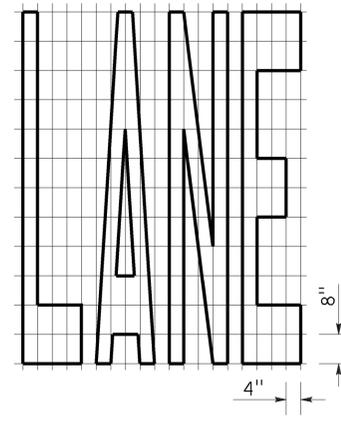
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
ARROWS**
NO SCALE

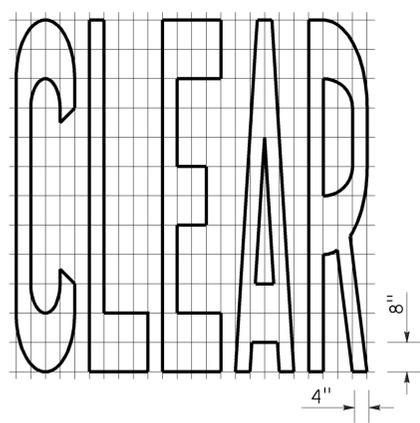
NOTE:
Minor variations in dimensions may be accepted by the Engineer.

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

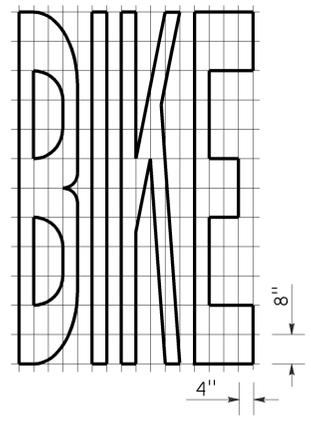
TO ACCOMPANY PLANS DATED 12-7-15



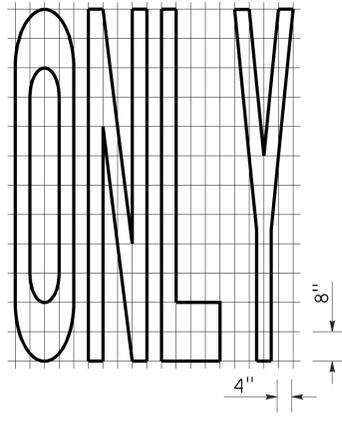
A=24 ft²



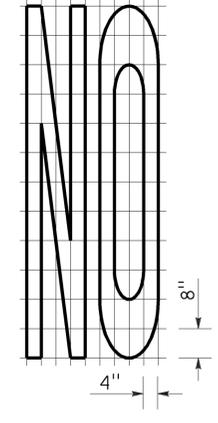
A=27 ft²



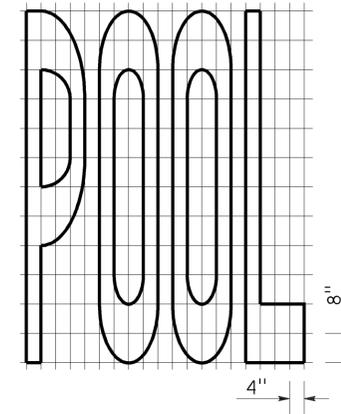
A=21 ft²



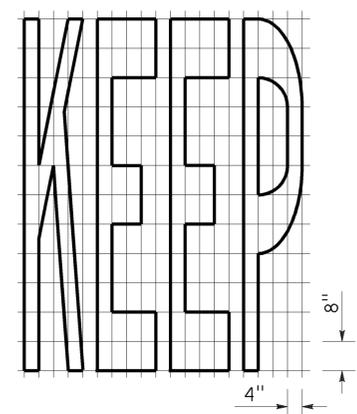
A=22 ft²



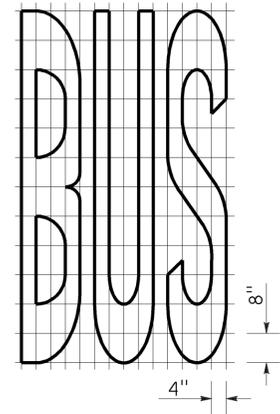
A=14 ft²



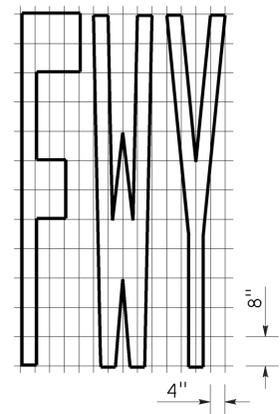
A=23 ft²



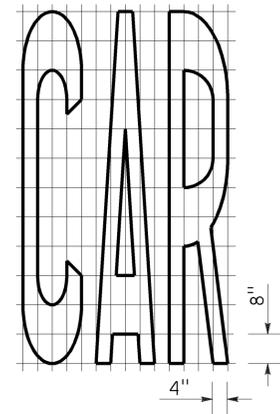
A=24 ft²



A=20 ft²

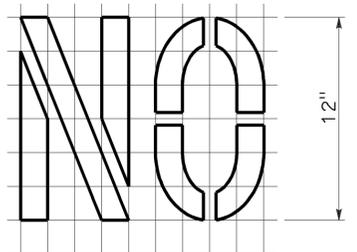


A=16 ft²



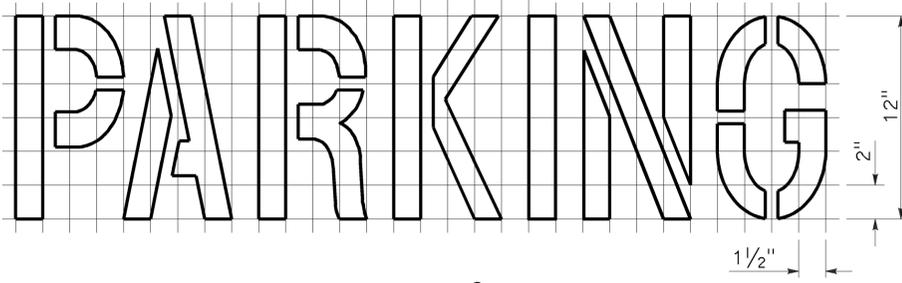
A=17 ft²

| 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 |



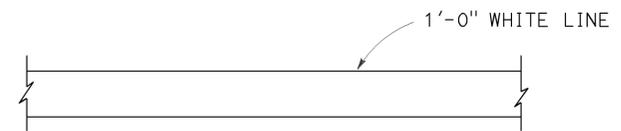
A=2 ft²

See Notes 6 and 7



A=2 ft²

See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

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

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

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

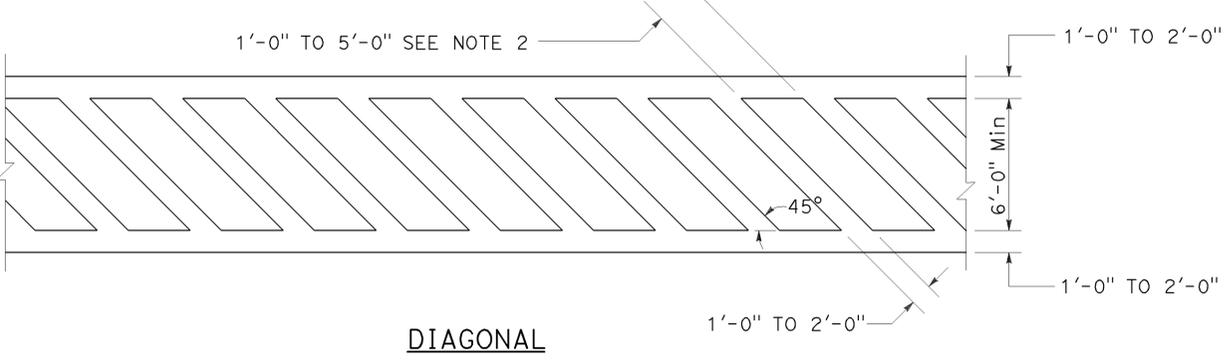
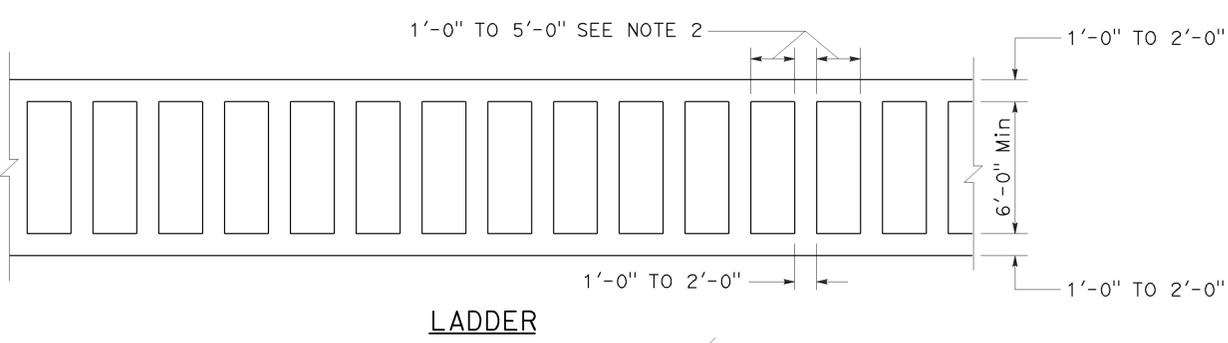
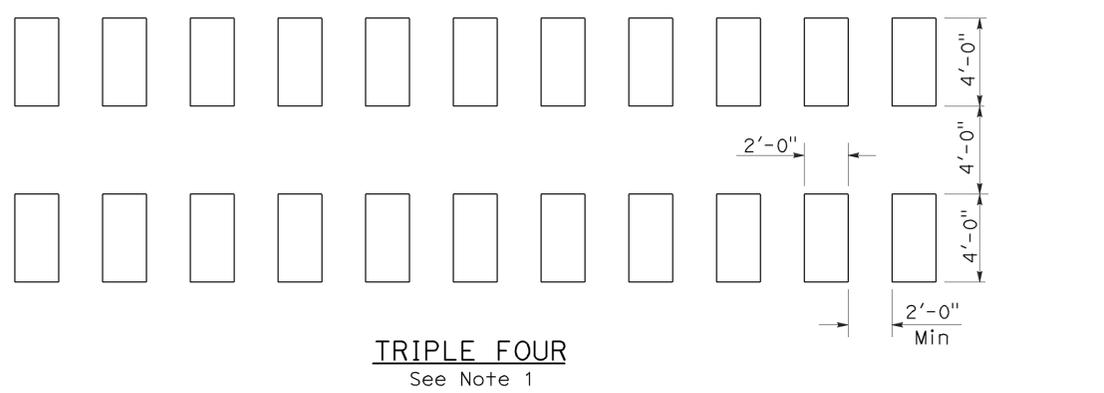
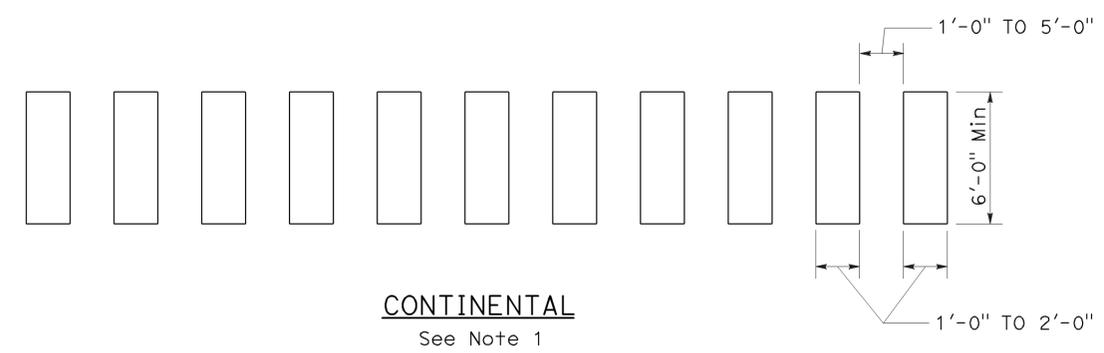
2010 REVISED STANDARD PLAN RSP A24E

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 08 | Riv | 74 | 36.5/42.6 | 24 | 37 |

Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 July 20, 2012
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



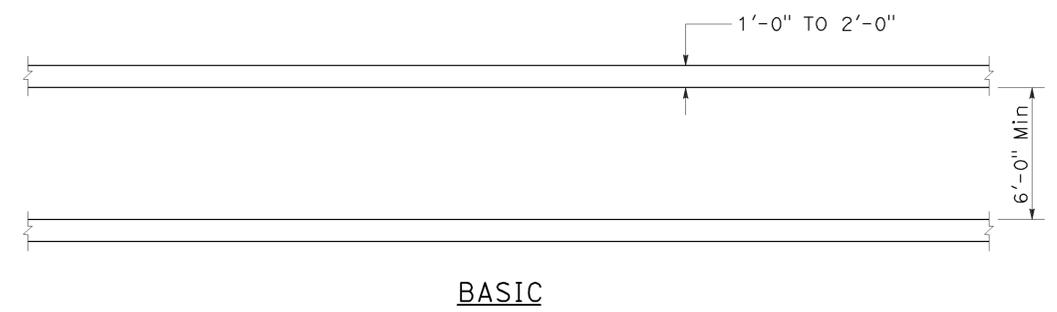
TO ACCOMPANY PLANS DATED 12-7-15



HIGHER VISIBILITY CROSSWALKS

NOTES:

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.



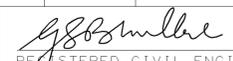
BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
CROSSWALKS**

NO SCALE
RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED 2010.

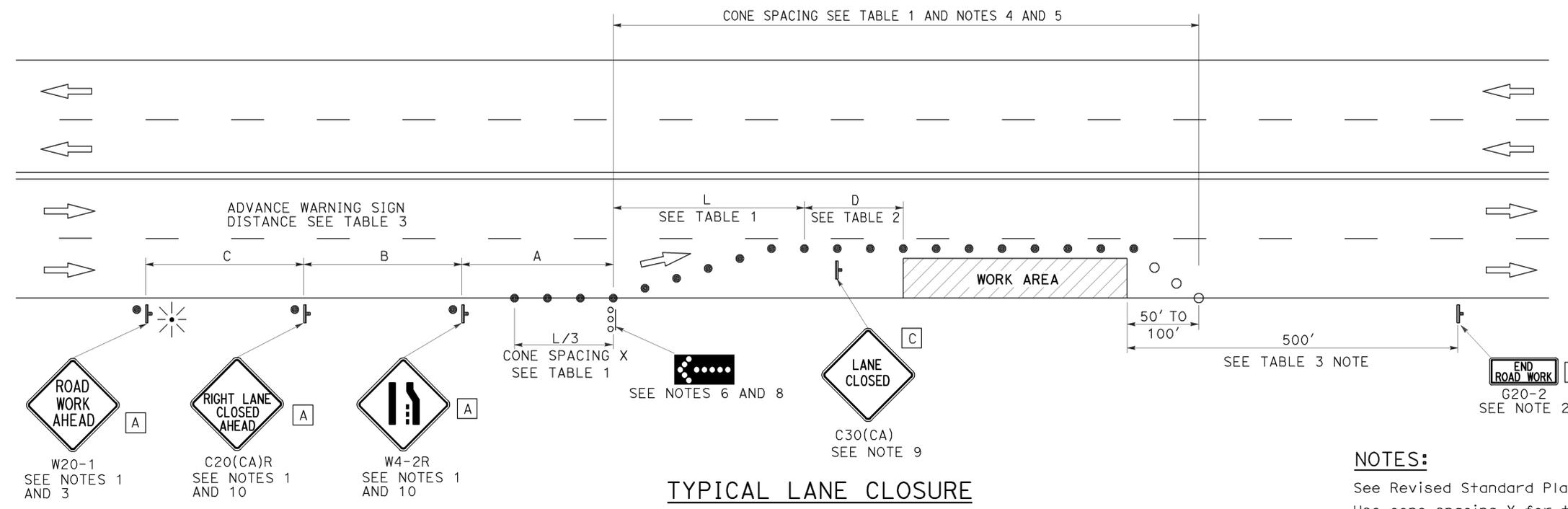
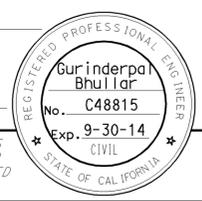
2010 REVISED STANDARD PLAN RSP A24F

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 25 | 37 |


 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 12-7-15



TYPICAL LANE CLOSURE

NOTES:

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

NOTES:

- Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
- 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.
- Flashing arrow sign shall be either Type I or Type II.
- For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

LEGEND

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

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 MULTILANE CONVENTIONAL
 HIGHWAYS**

NO SCALE

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

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

NOTES:

See Revised Standard Plan RSP T9 for tables.

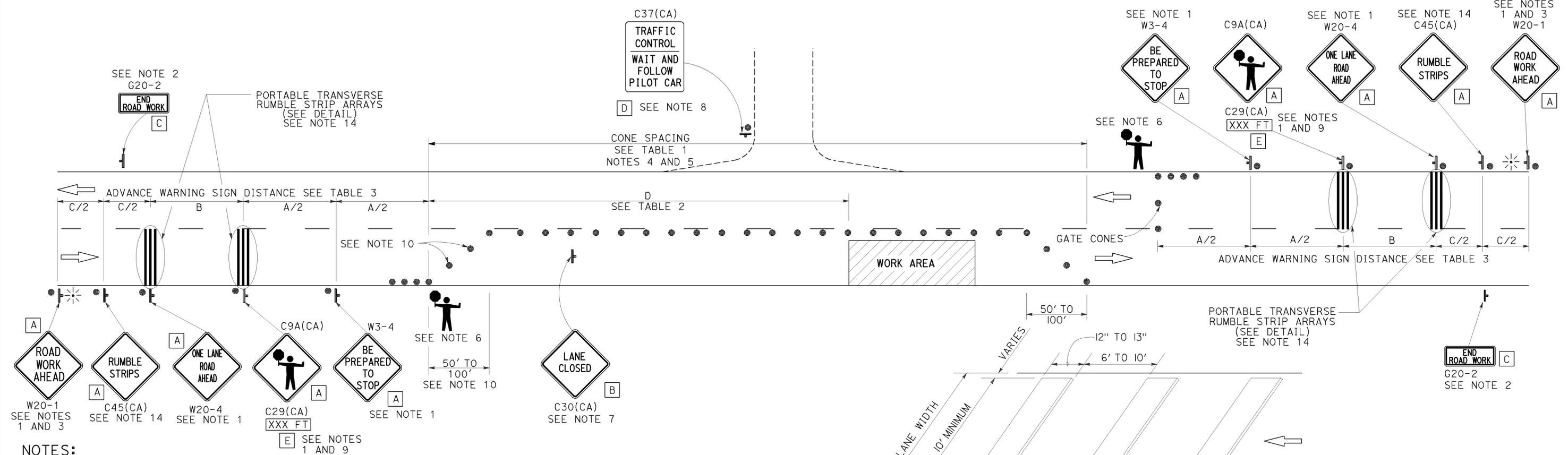
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

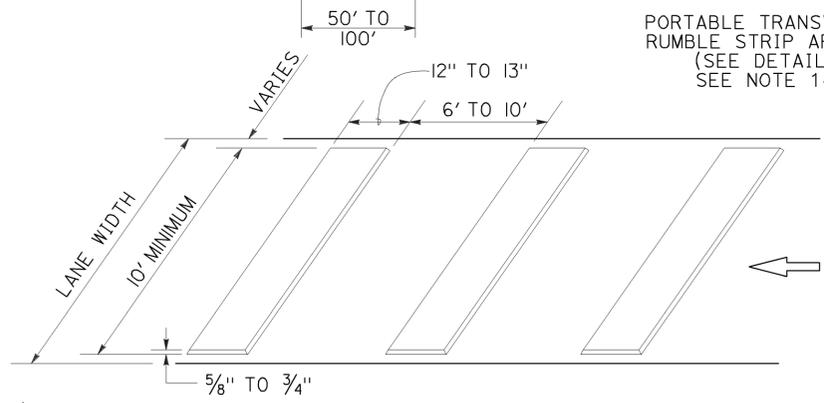
TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 12-7-15



- NOTES:**
- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
 - If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
 - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
 - Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
 - Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.

- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign.
- Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
- The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
- If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
 - Work duration occupies a location for four hours or less
 - Posted speed limit is below 45 MPH
 - Work is of emergency nature
 - Work zone is in snow or icy weather conditions



SIGN PANEL SIZE (Min)

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

LEGEND

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

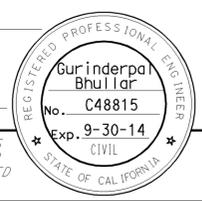
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

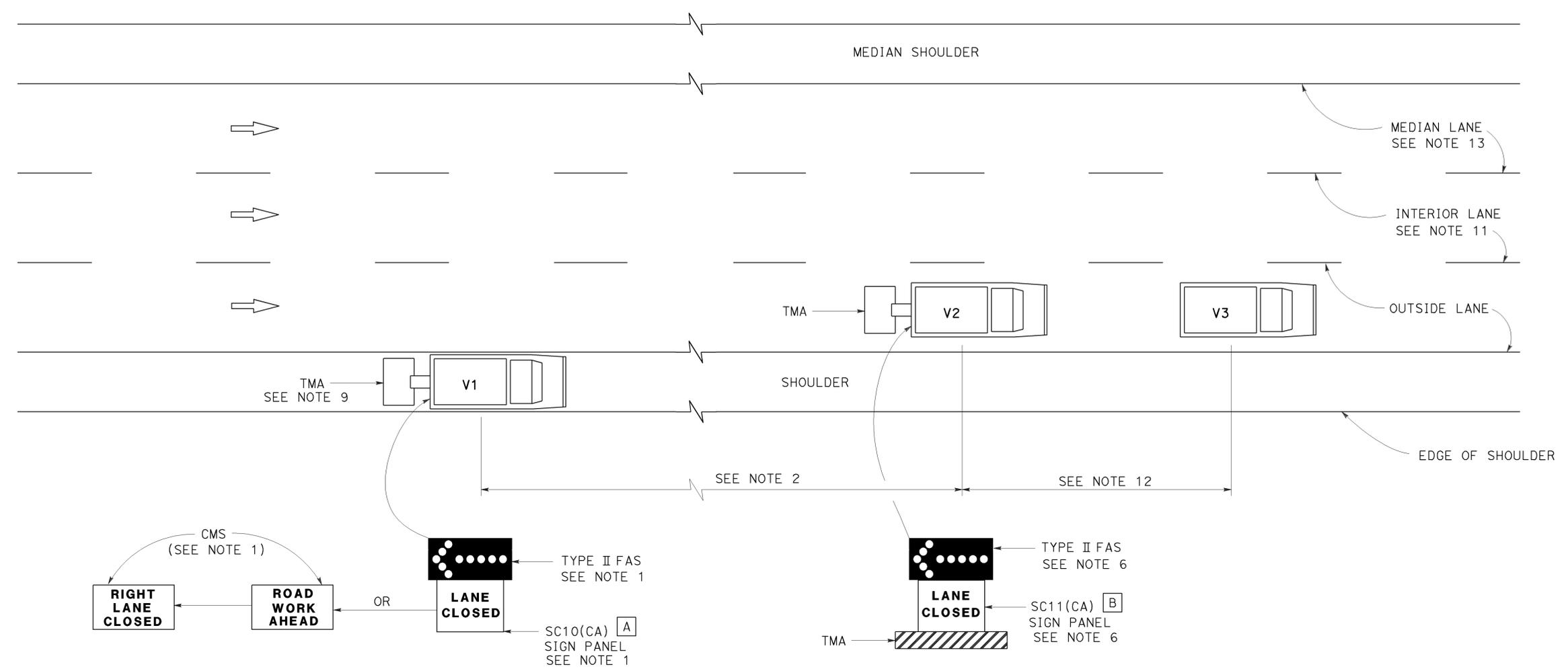
NO SCALE

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

2010 REVISED STANDARD PLAN RSP T13



TO ACCOMPANY PLANS DATED 12-7-15



SIGN PANEL SIZE (Min)

- A 66" x 36"
- B 54" x 42"

LEGEND

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

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR MOVING LANE CLOSURE
ON MULTILANE HIGHWAYS**

NO SCALE

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

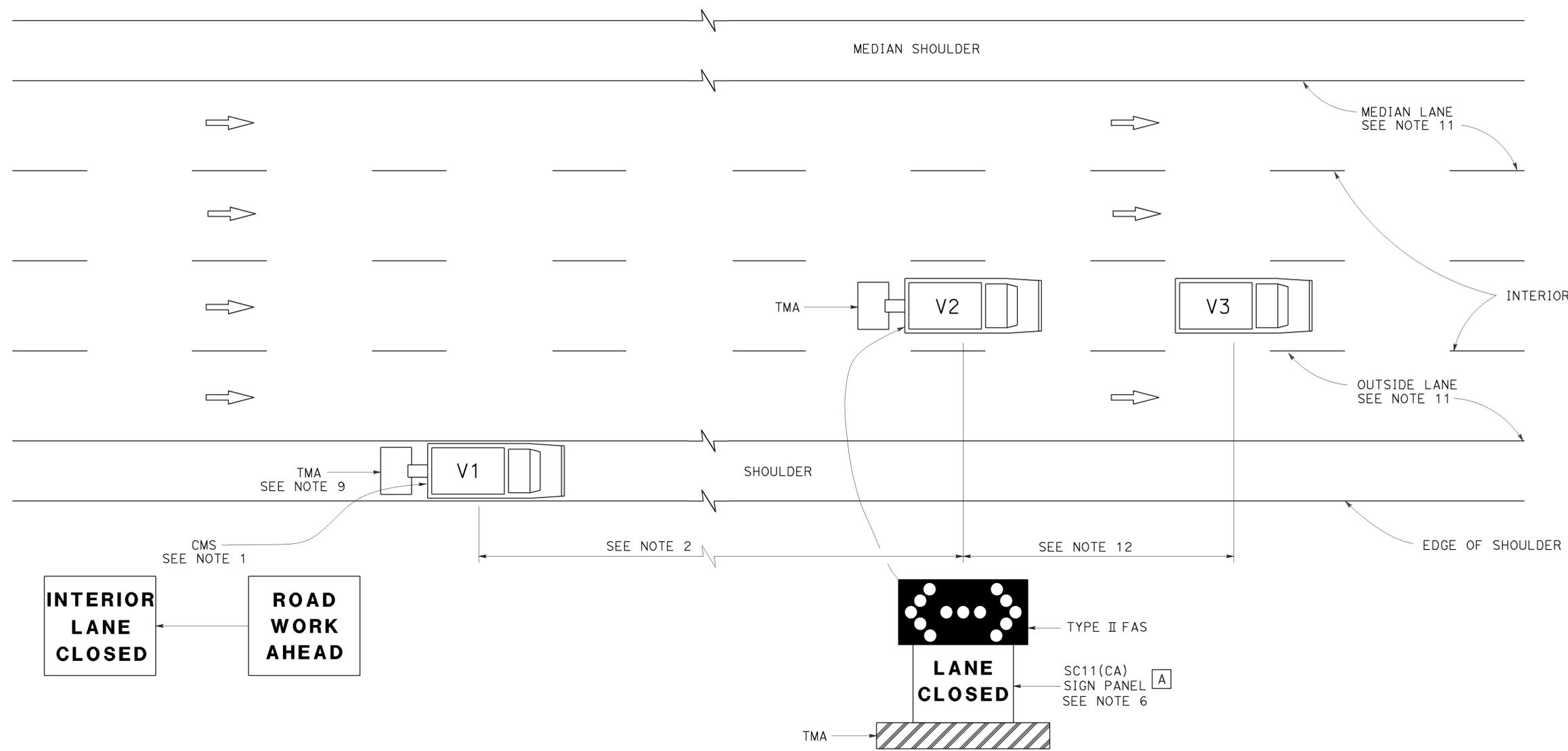
REVISED STANDARD PLAN RSP T15

2010 REVISED STANDARD PLAN RSP T15

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 28 | 37 |

Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 12-7-15



SIGN PANEL SIZE (Min)

A 54" x 42"

LEGEND

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

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

NOTES:

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

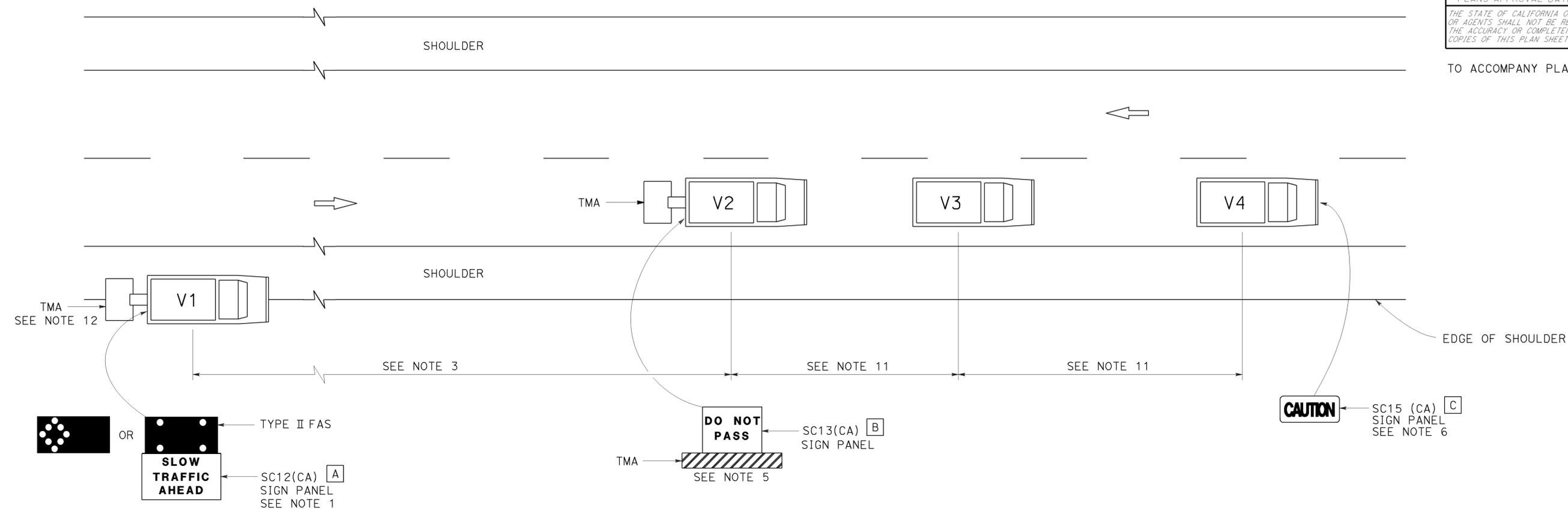
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON MULTILANE HIGHWAYS**
 NO SCALE

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

REVISED STANDARD PLAN RSP T16

2010 REVISED STANDARD PLAN RSP T16

TO ACCOMPANY PLANS DATED 12-7-15



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 |
| Ctid | 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 |
| 08 | Riv | 74 | 36.5/42.6 | 30 | 37 |

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 12-7-15

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



TO ACCOMPANY PLANS DATED 12-7-15

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

| | | |
|--|-------------------------|--|
| | TYPE H SERVICE, 28'-10" | TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE |
|--|-------------------------|--|

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 |

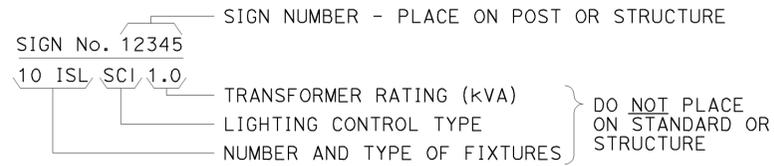
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

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.

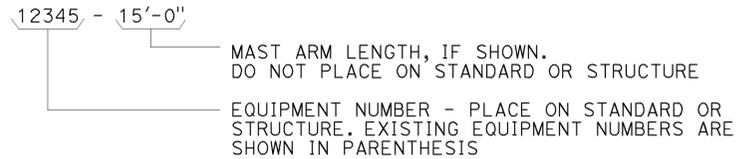
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

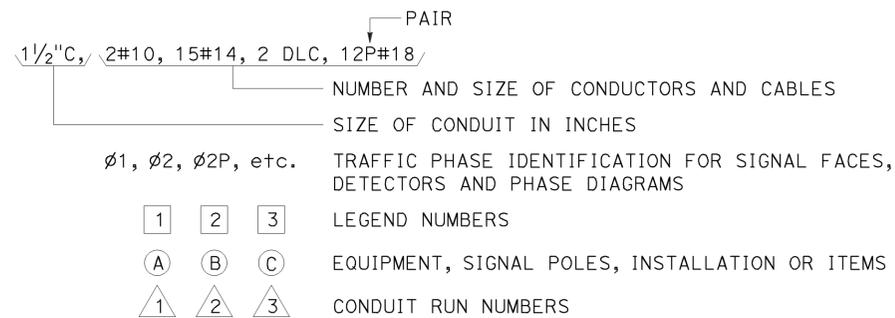
ILLUMINATED SIGN IDENTIFICATION NUMBER:



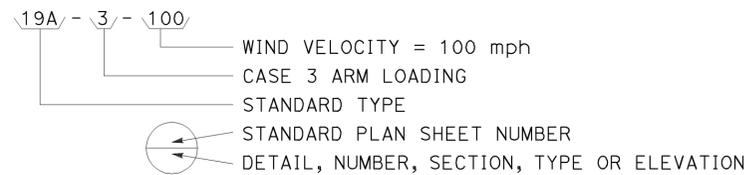
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



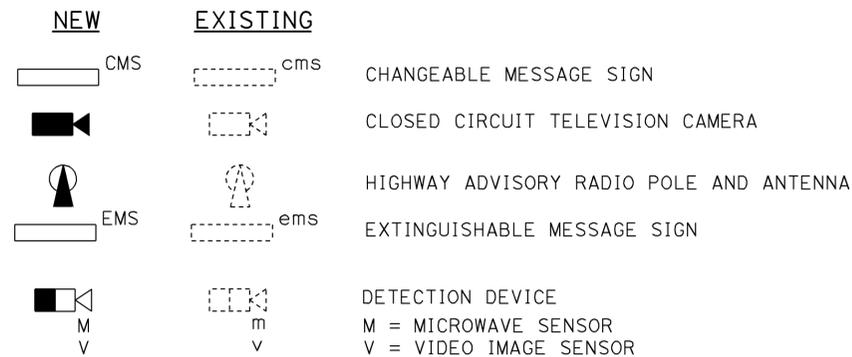
CONDUIT AND CONDUCTOR IDENTIFICATION:



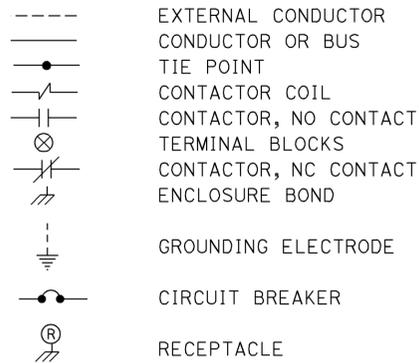
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



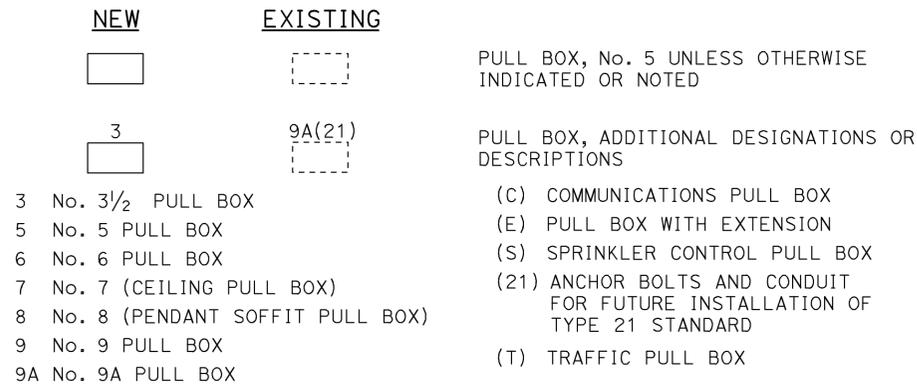
MISCELLANEOUS EQUIPMENT



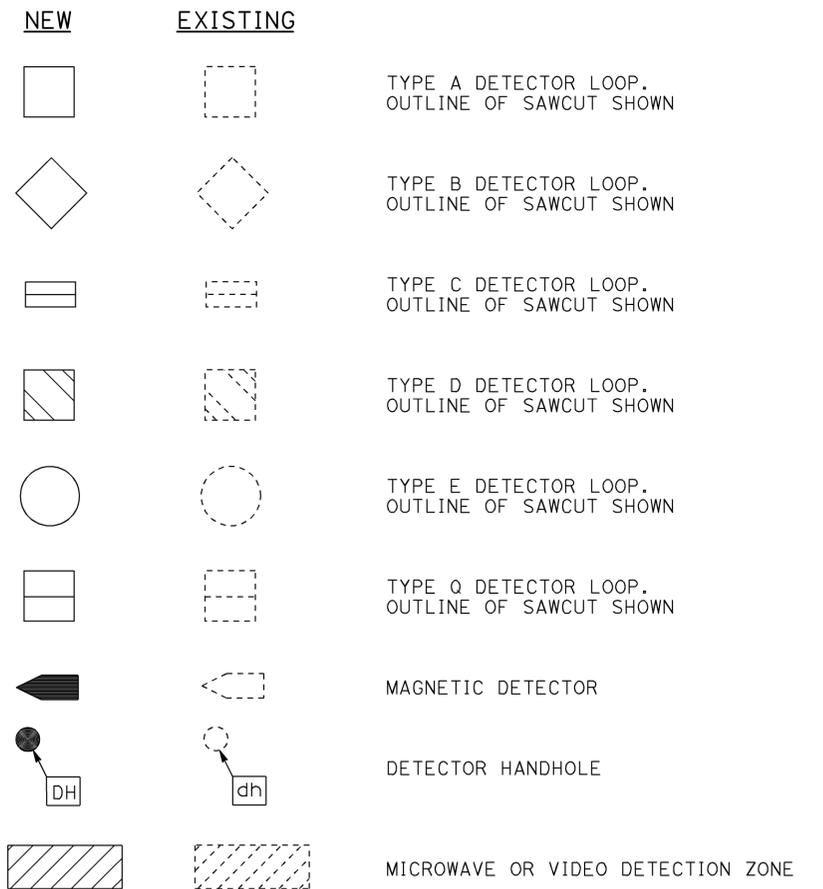
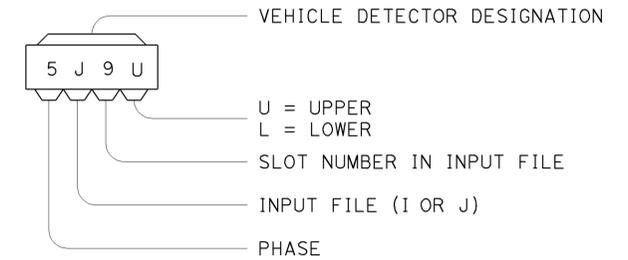
WIRING DIAGRAM LEGEND



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

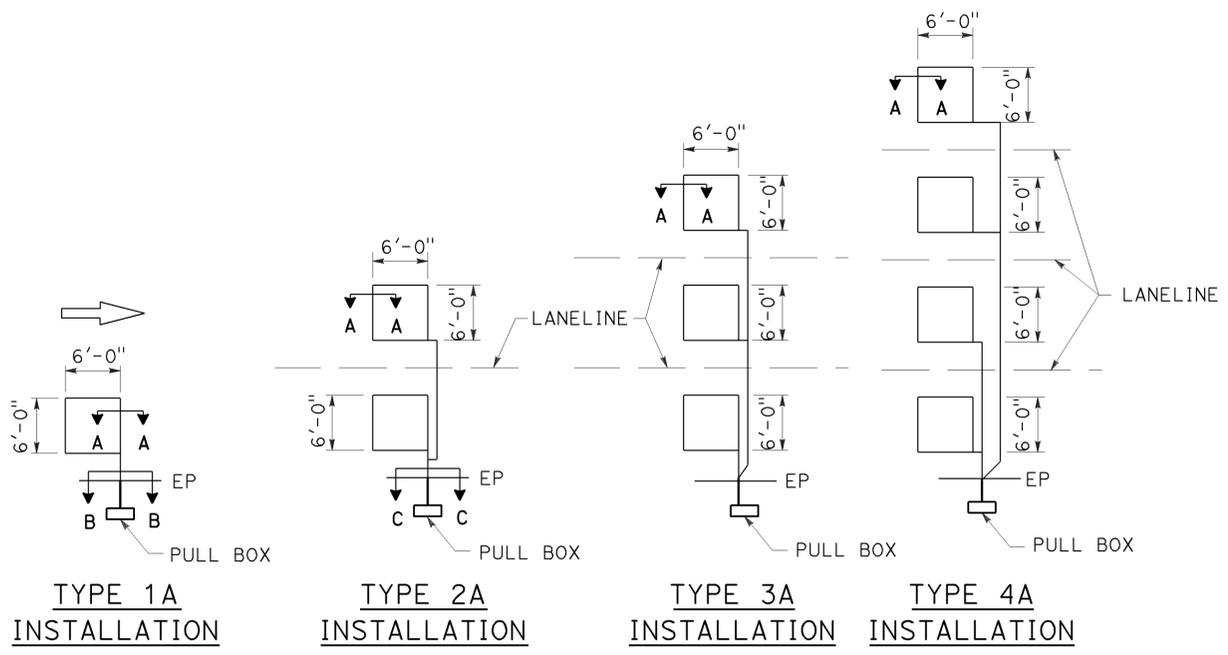
2010 REVISED STANDARD PLAN RSP ES-1C

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 33 | 37 |

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

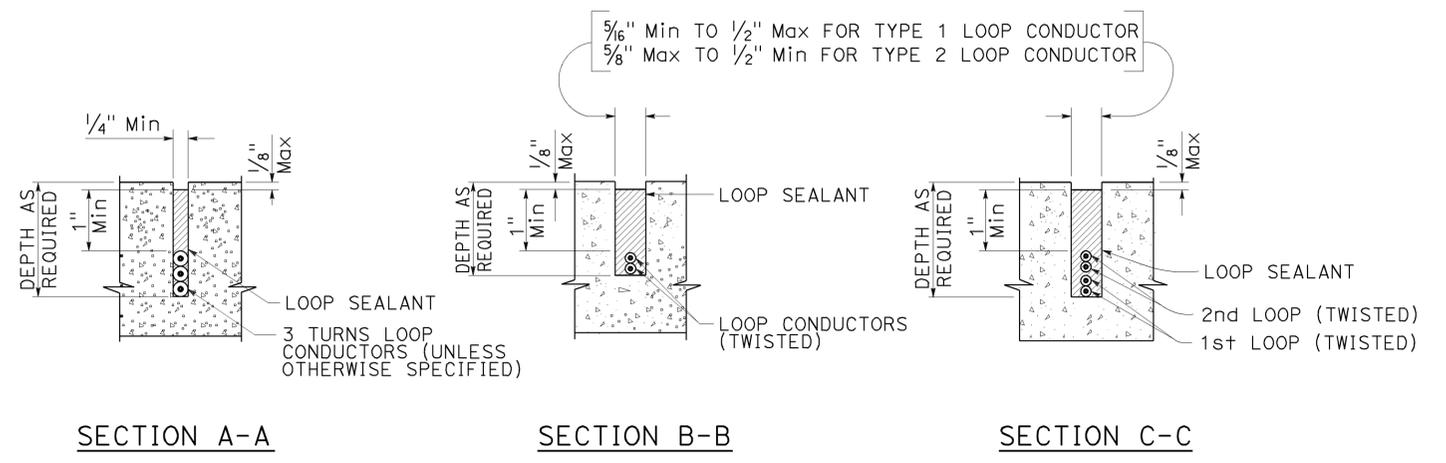


TO ACCOMPANY PLANS DATED 12-7-15

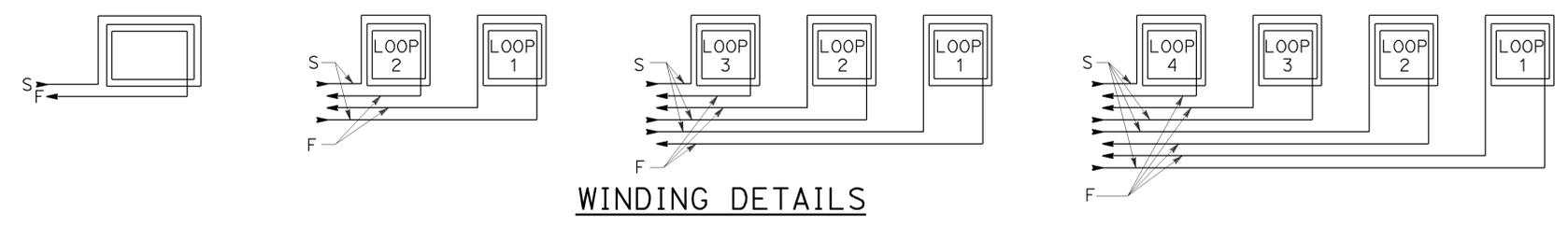


SAWCUT DETAILS

- Type A loop detector configurations illustrated
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans.

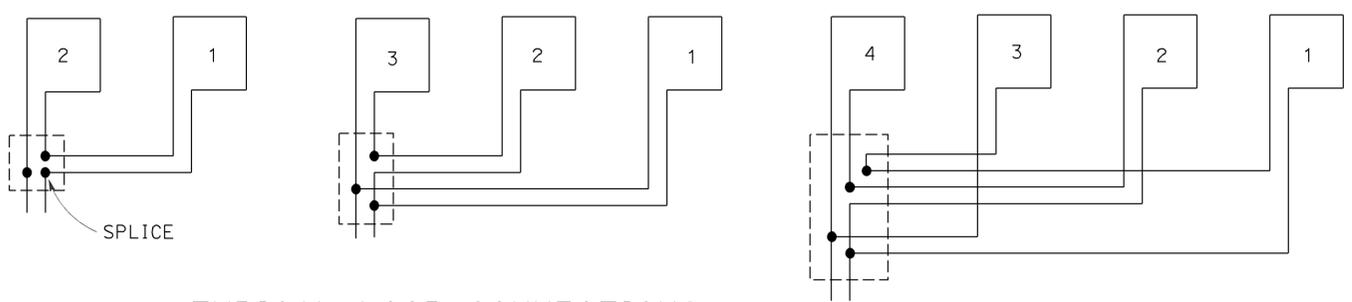


SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:
 S - START
 F - FINISH



TYPICAL LOOP CONNECTIONS
 Dashed lines represent the pull box

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LOOP DETECTORS)**
 NO SCALE

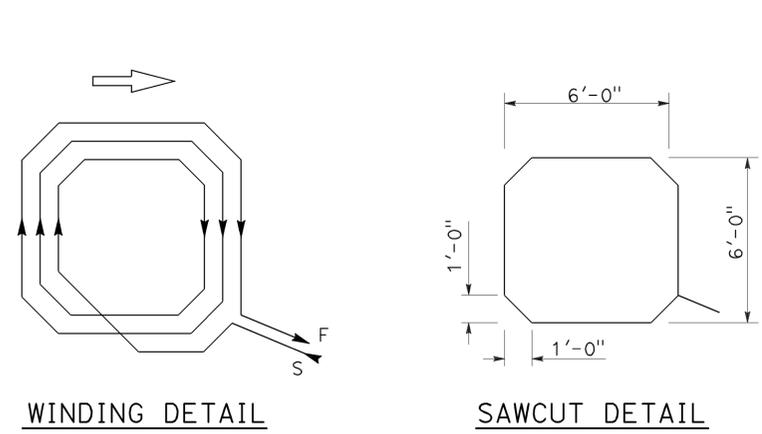
RSP ES-5A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-5A DATED MAY 20, 2011 - PAGE 448 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5A

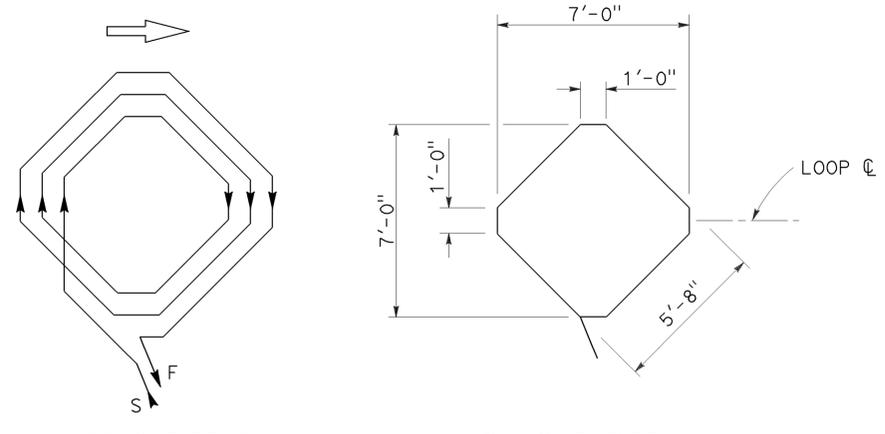
2010 REVISED STANDARD PLAN RSP ES-5A

| | | | | | |
|--|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 34 | 37 |
| <i>Theresa Gabriel</i> REGISTERED ELECTRICAL ENGINEER July 19, 2013 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> | | | | | |
| REGISTERED PROFESSIONAL ENGINEER Theresa Aziz Gabriel No. E15129 Exp. 6-30-14 ELECTRICAL STATE OF CALIFORNIA | | | | | |

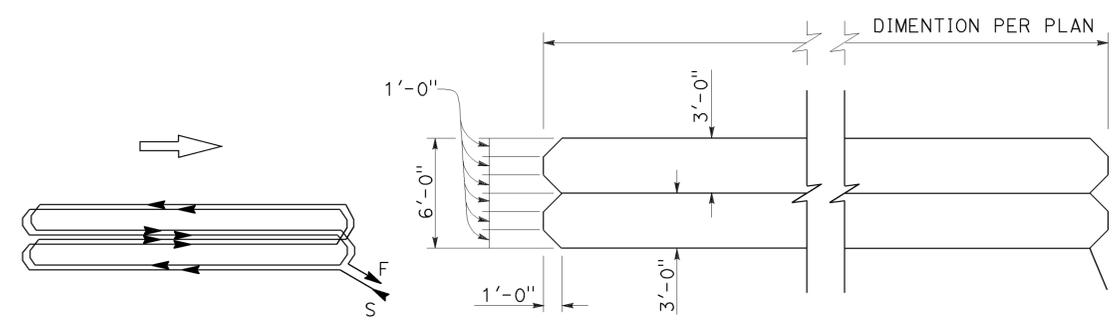
TO ACCOMPANY PLANS DATED 12-7-15



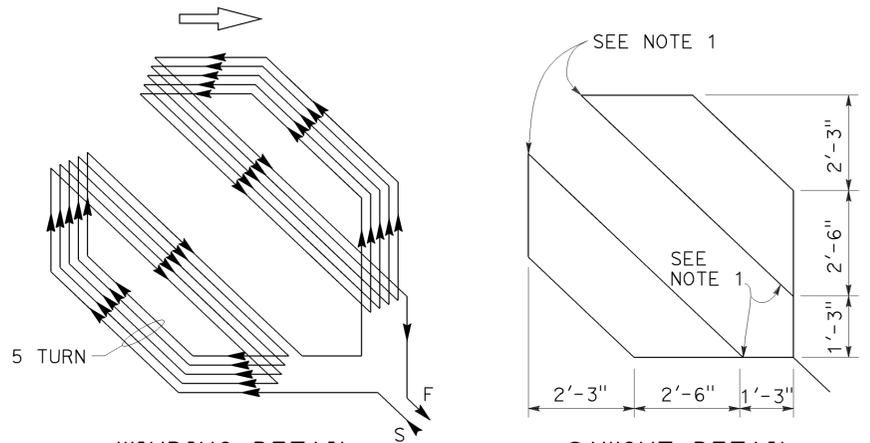
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



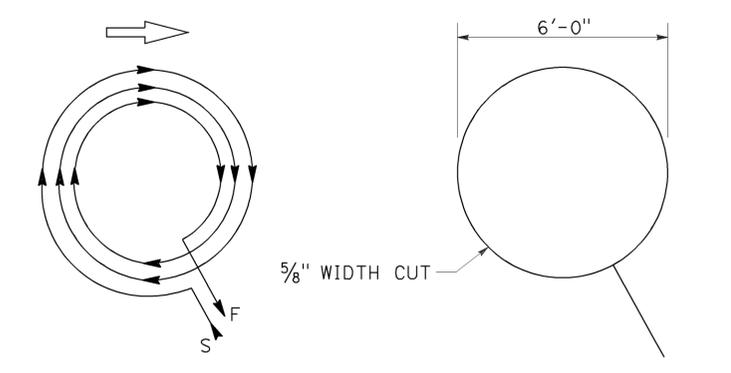
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



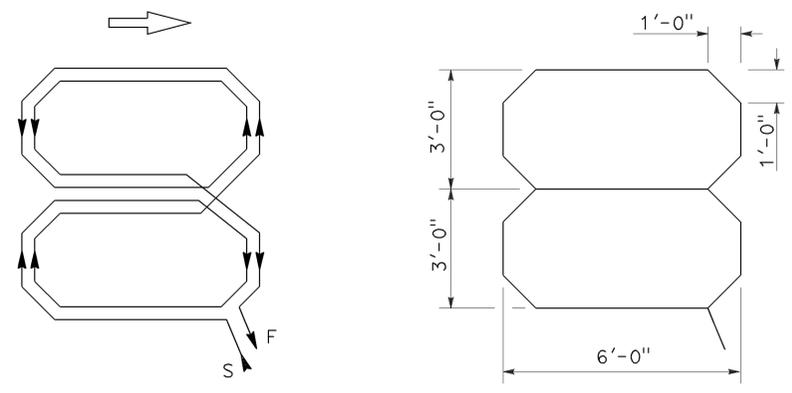
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



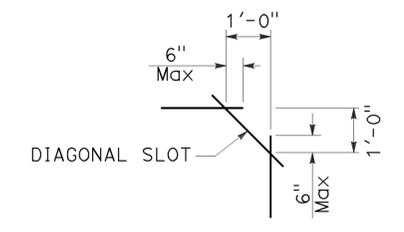
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



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

- 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.

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.

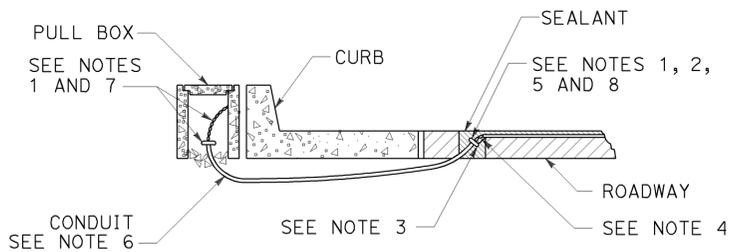
2010 REVISED STANDARD PLAN RSP ES-5B

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 35 | 37 |

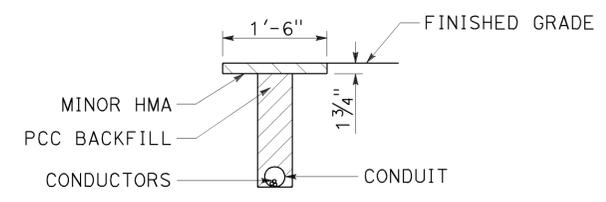
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

TO ACCOMPANY PLANS DATED 12-7-15

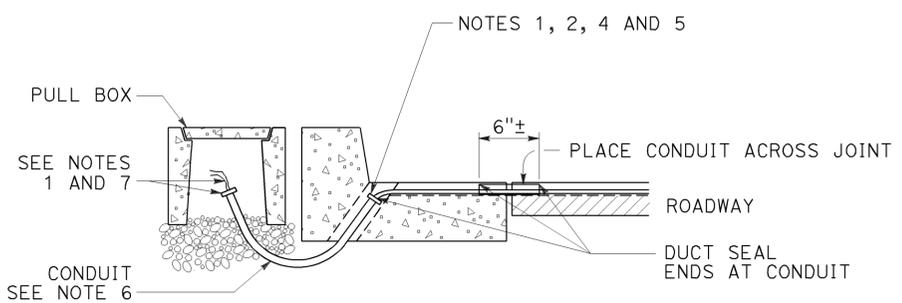


TYPE A
CURB TERMINATION DETAIL

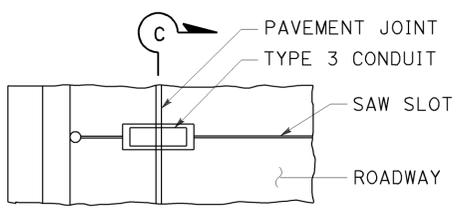


"T" TRENCH
DETAIL T

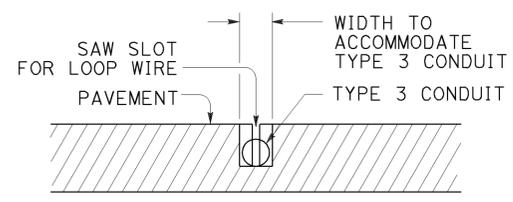
5/16" x 1 1/2" SCREW (BRASS, STAINLESS STEEL OR OTHER NON-CORRODING MATERIAL)



CROSS SECTION

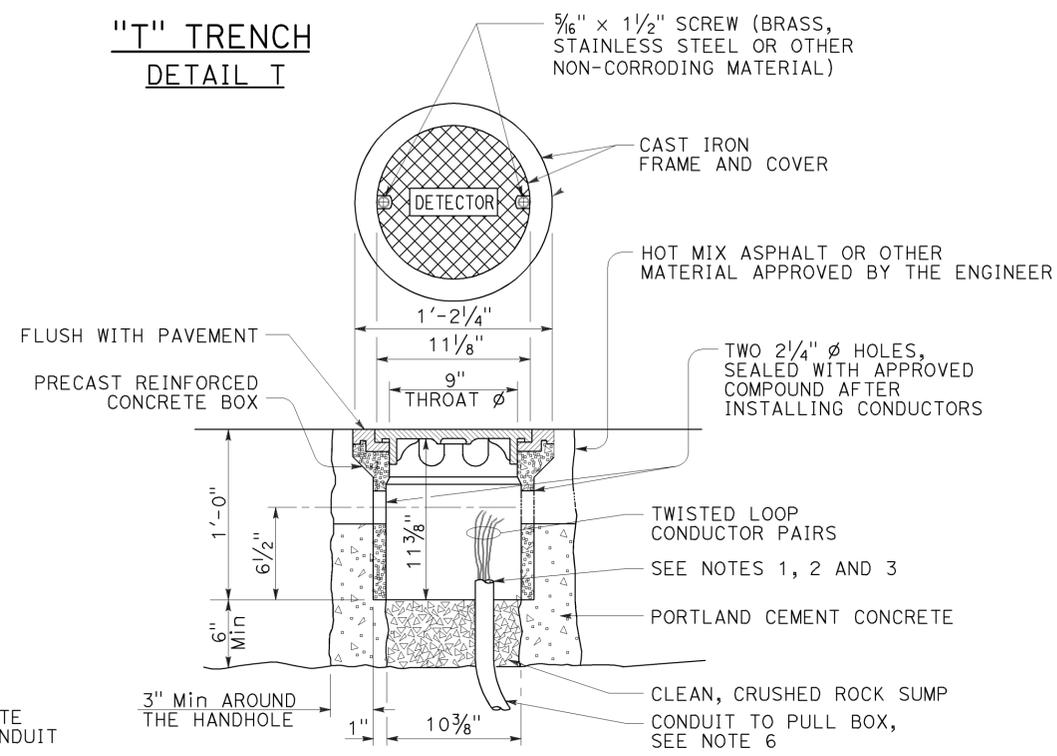


PLAN VIEW

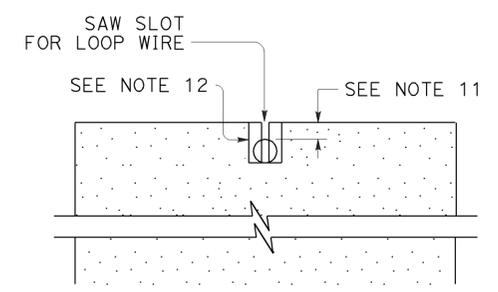


SECTION C-C

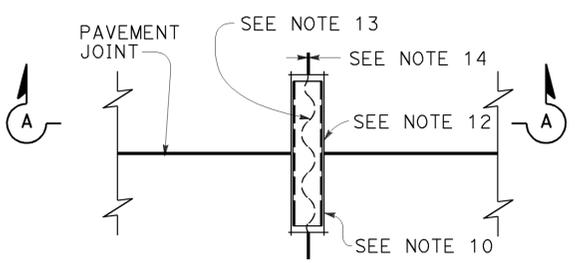
TYPE B
CURB TERMINATION DETAIL



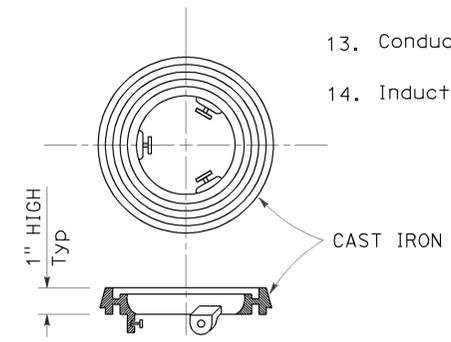
DETECTOR HANDHOLE DETAIL



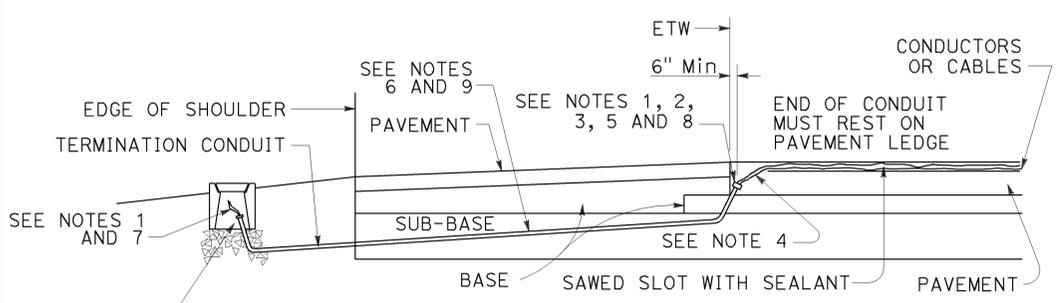
SECTION A-A



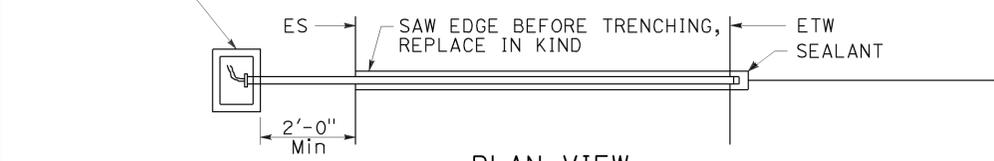
PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT



LOCKING GRADE RING



CROSS SECTION



PLAN VIEW
SHOULDER TERMINATION DETAILS

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

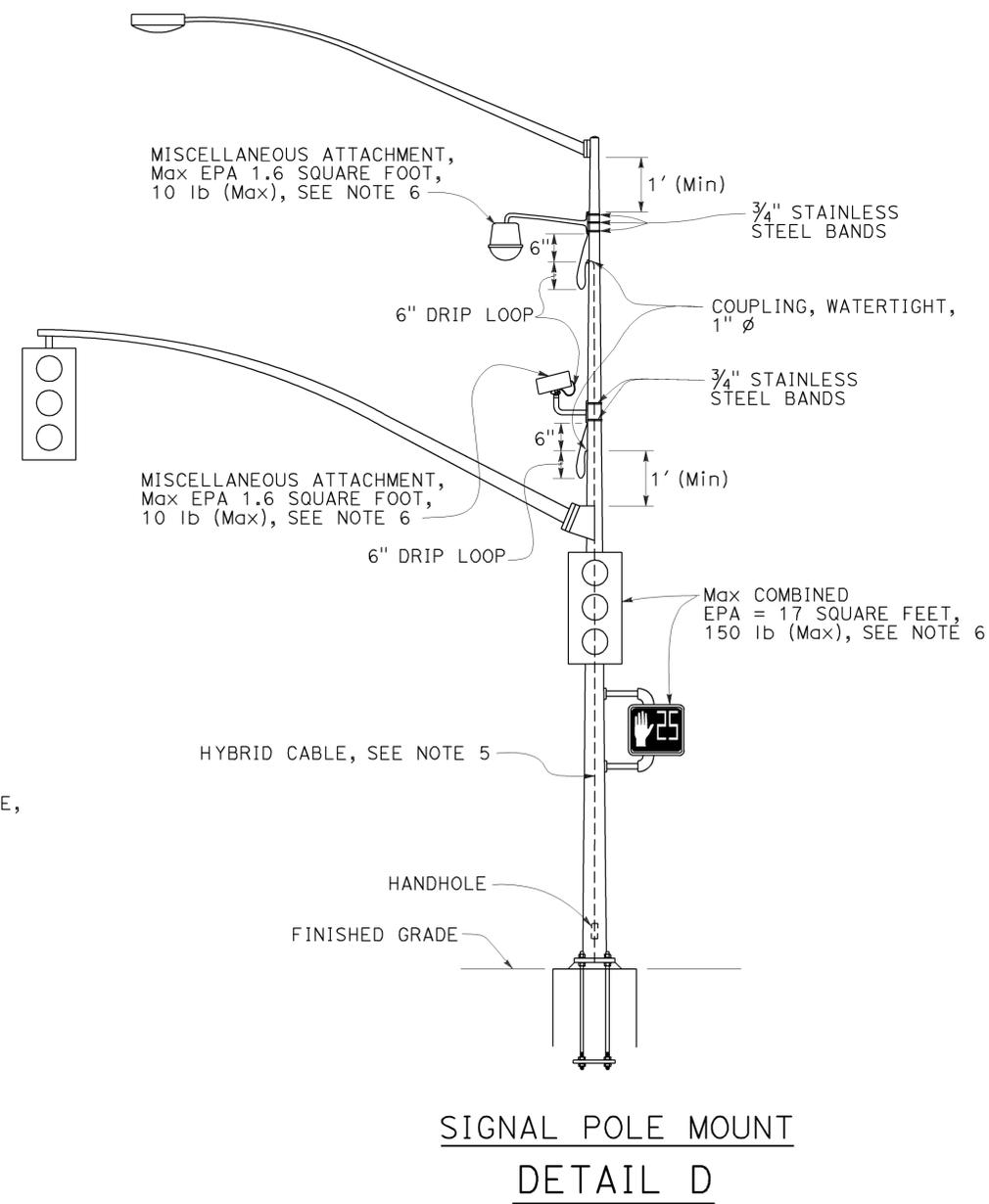
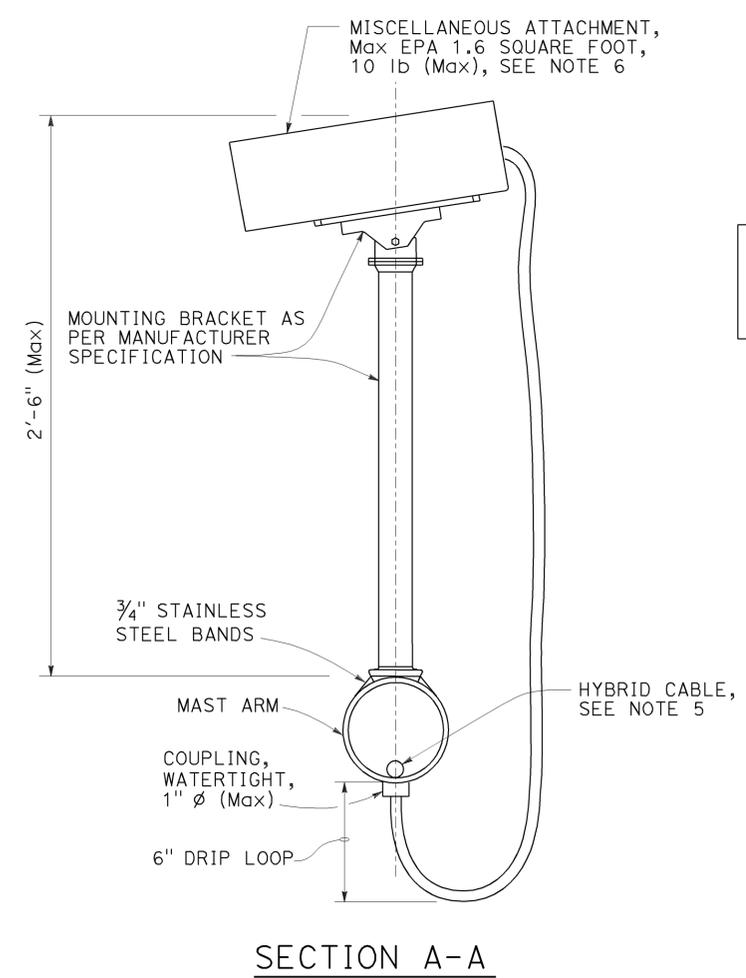
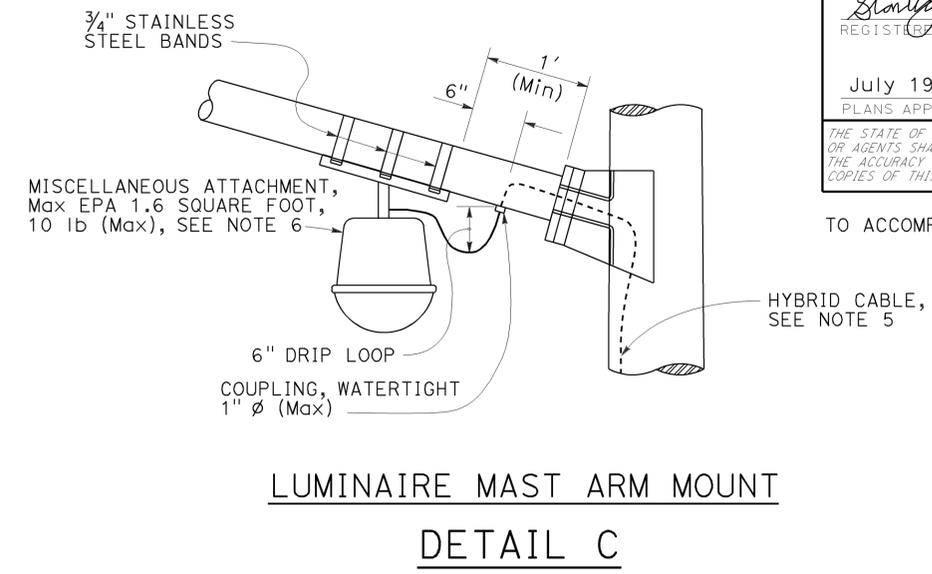
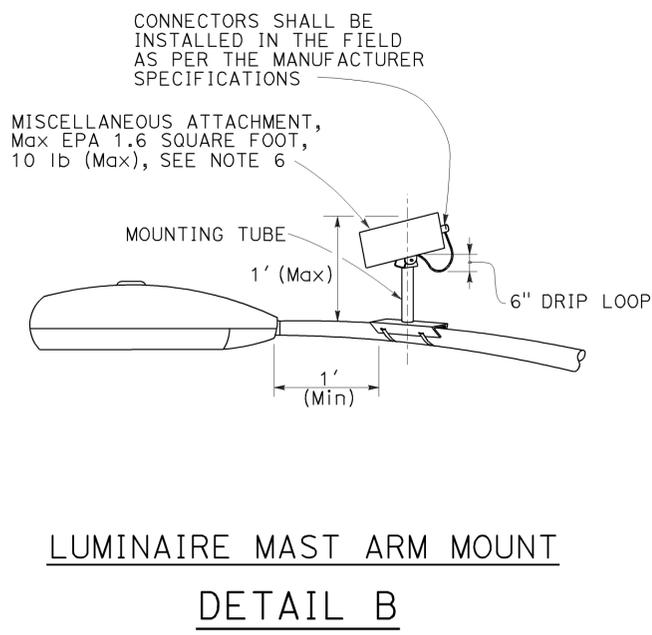
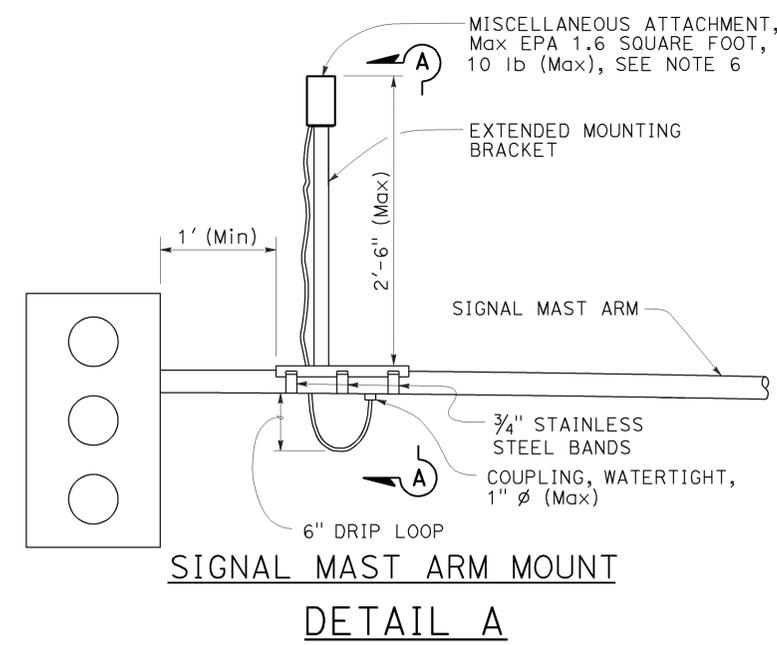
2010 REVISED STANDARD PLAN RSP ES-5D

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 08 | Riv | 74 | 36.5/42.6 | 36 | 37 |

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 12-7-15

2010 REVISED STANDARD PLAN RSP ES-7R



NOTES:

1. Exact mounting location of miscellaneous attachment and bracket shall be approved by the Engineer per manufacturer's recommendation.
2. Location of cable entrances on signal pole shall be a minimum of 1' from any flange or base plate.
3. Hybrid cable entrances on signal pole shall be drilled for weathertight coupling as required.
4. Hybrid cable shall have a drip loop at the entrance into signal pole, luminaire mast arm and signal mast arm.
5. A single hybrid cable shall run continuous and shall not be twisted from the miscellaneous attachment to the controller cabinet. No splices shall be allowed.
6. Use the manufacturer's Effective Projected Area (EPA) for miscellaneous attachment. The maximum EPA for each miscellaneous attachment shall be 1.6 square feet.
7. Maximum of two miscellaneous attachments per traffic signal structure.
8. Maximum of one miscellaneous attachment per mast arm.
9. Miscellaneous attachment shall be mounted using clamping devices.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING,
MISCELLANEOUS ATTACHMENT)**

NO SCALE

RSP ES-7R DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-7R DATED MAY 20, 2011 - PAGE 479 OF THE STANDARD PLANS BOOK DATED 2010.

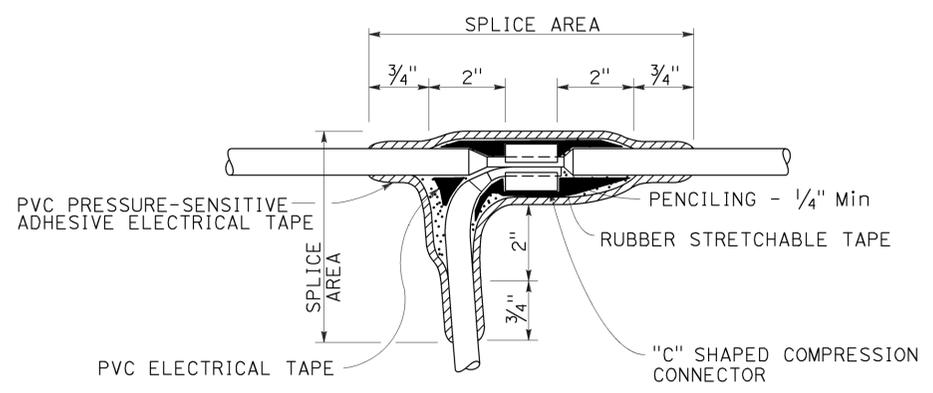
REVISED STANDARD PLAN RSP ES-7R

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 08 | Riv | 74 | 36.5/42.6 | 37 | 37 |

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE

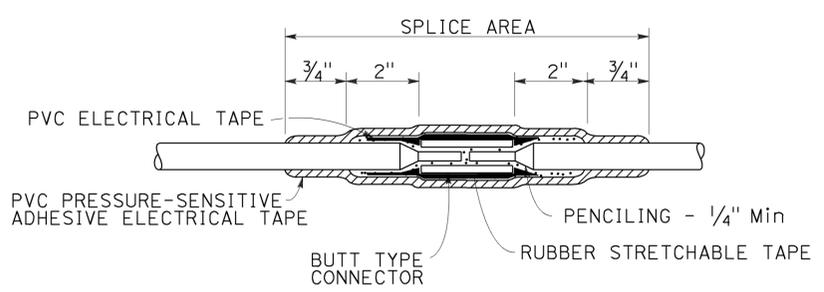
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TO ACCOMPANY PLANS DATED 12-7-15



TYPE C SPLICE

See Note 3

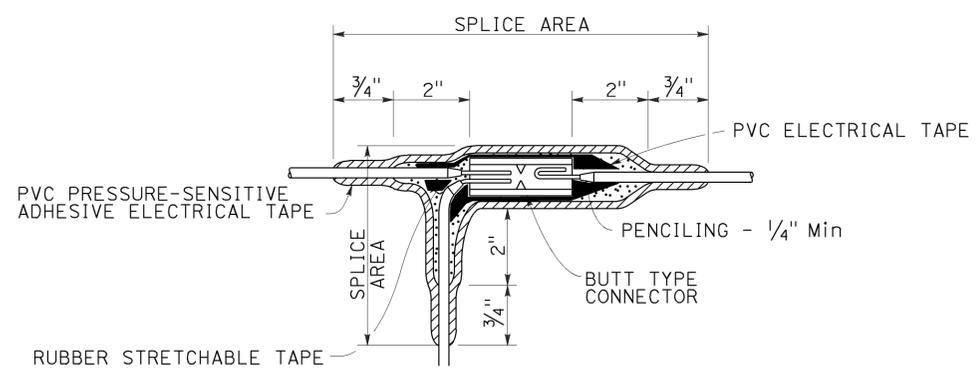


TYPE S SPLICE

See Note 4

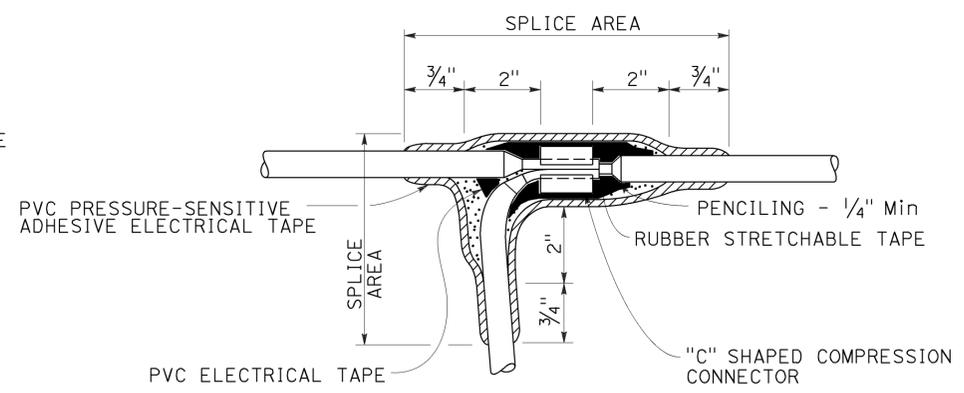
NOTES:

1. Dimensions are minimum.
2. Rubber tapes shall be rolled after application.
3. Between 1 free-end and 1 through conductor.
4. Between 2 free-end conductors.
5. Between 3 free-end conductors.



TYPE ST SPLICE

See Note 5



TYPE T SPLICE

See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SPLICING DETAILS)**

NO SCALE

RSP ES-13A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-13A DATED MAY 20, 2011 - PAGE 491 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-13A

2010 REVISED STANDARD PLAN RSP ES-13A