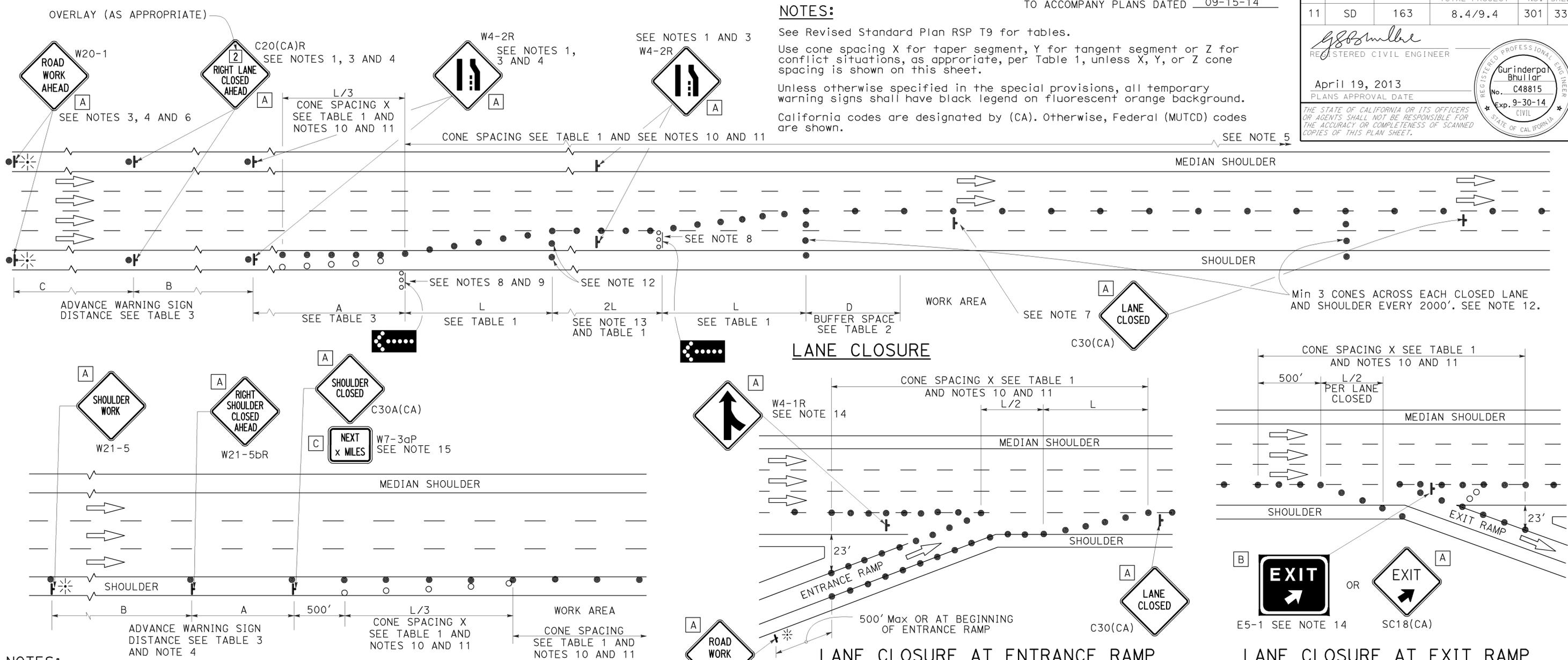


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	301	332

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.

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



- NOTES:**
- 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 closures.
 - Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 - Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
- 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) "NEXT x MILES" sign for the first advance warning sign.
 - Place a C30(CA) sign every 2000' throughout length of lane closure.
 - One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
 - A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
 - 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.

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

LEGEND

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

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	302	332

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

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.

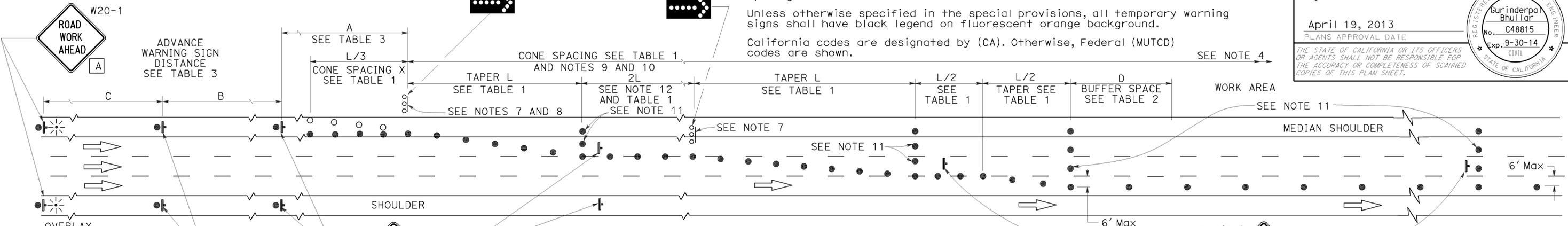
NOTES: See Revised Standard Plan RSP T9 for tables.

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.

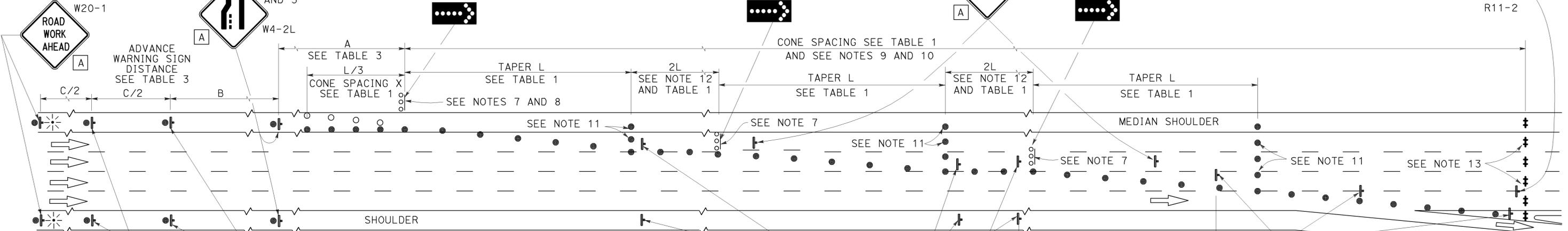
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

SEE NOTES 3 AND 5



LANE CLOSURE WITH PARTIAL SHOULDER USE

SEE NOTES 3 AND 5



COMPLETE CLOSURE

NOTES:

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- 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.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- 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.
- 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.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

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

LEGEND

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURES ON
 FREEWAYS AND EXPRESSWAYS**

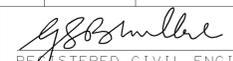
NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10A

2010 REVISED STANDARD PLAN RSP T10A

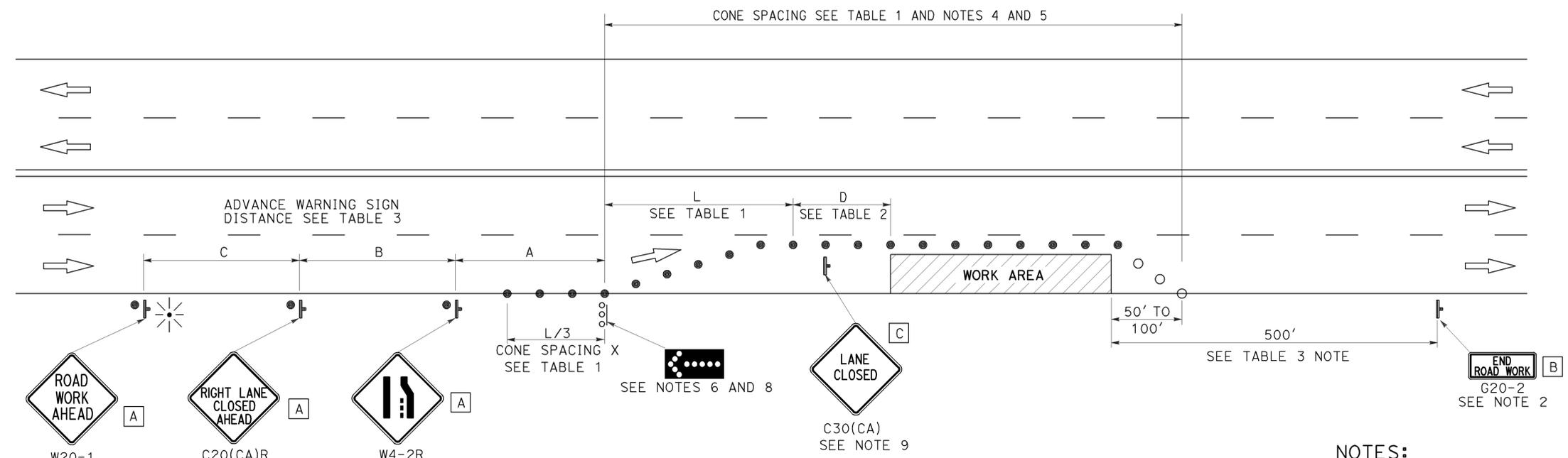
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	303	332


 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 09-15-14



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

TO ACCOMPANY PLANS DATED 09-15-14

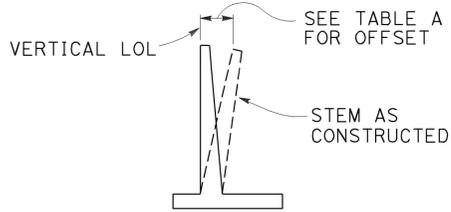
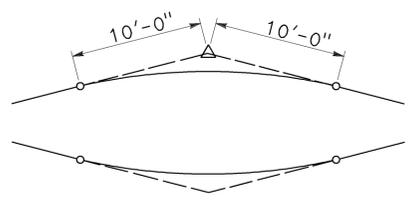


TABLE A

H	OFFSET
4'-12'	H/200
14'-16'	H/160
18'-20'	H/140
22'-24'	H/130
26'-36'	2 1/2"

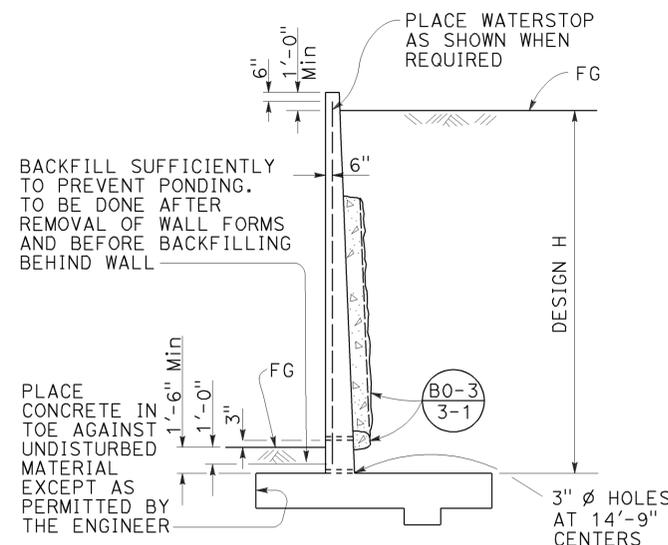
APPROXIMATE WALL OFFSET VALUES

Values for offsetting forms to be determined by the Engineer.



20'-0" VC AT TOP OF WALL SLOPE CHANGE

Where shown on the plans

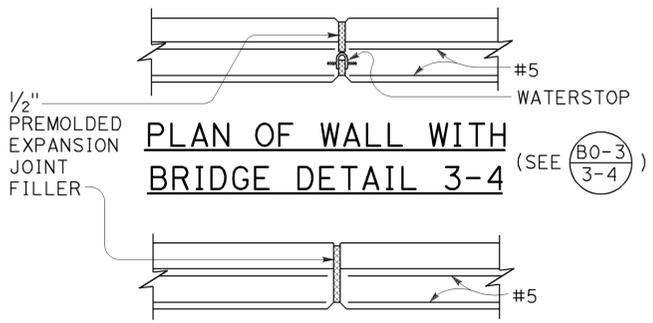


DESIGN AND DRAINAGE

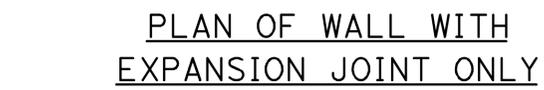
BACKFILL SUFFICIENTLY TO PREVENT PONDING. TO BE DONE AFTER REMOVAL OF WALL FORMS AND BEFORE BACKFILLING BEHIND WALL.

PLACE CONCRETE IN TOE AGAINST UNDISTURBED MATERIAL EXCEPT AS PERMITTED BY THE ENGINEER.

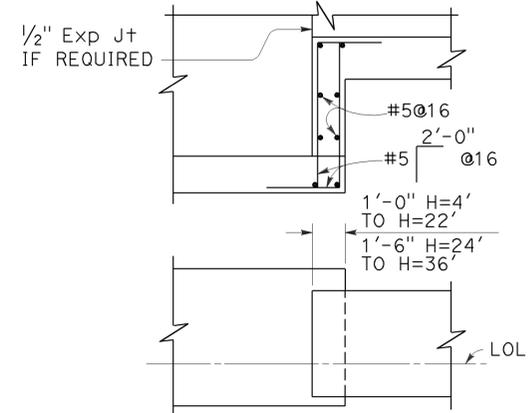
PLACE WATERSTOP AS SHOWN WHEN REQUIRED



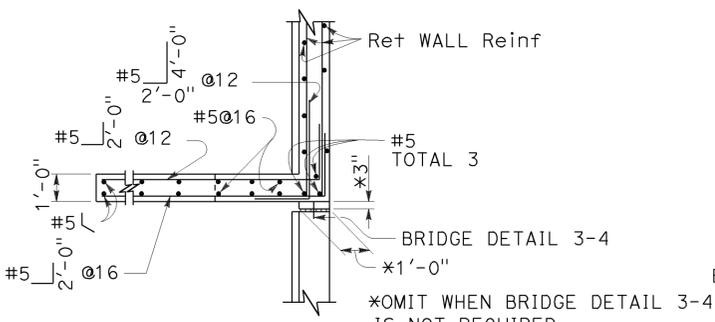
PLAN OF WALL WITH BRIDGE DETAIL 3-4



PLAN OF WALL WITH EXPANSION JOINT ONLY

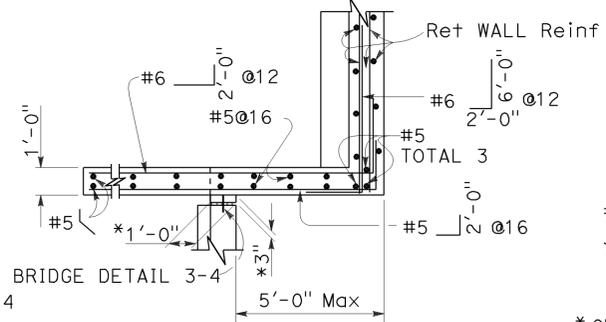


FOOTING STEP



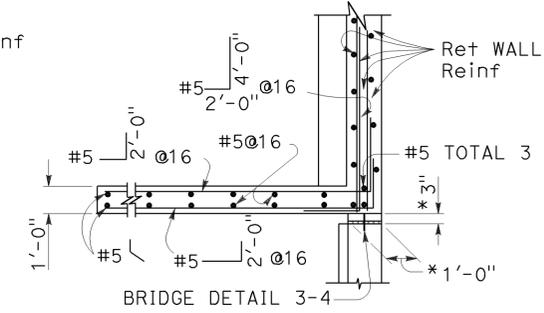
PLAN

(For return wall Type "A")



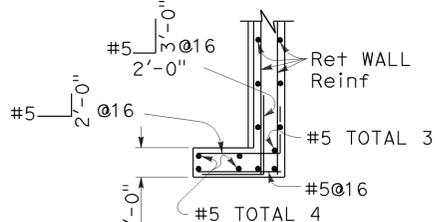
PLAN

(For return wall Type "B")



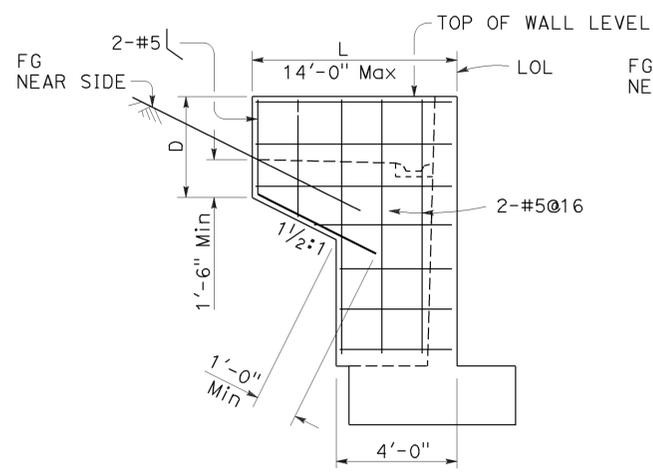
PLAN

(For return wall Type "C")



PLAN

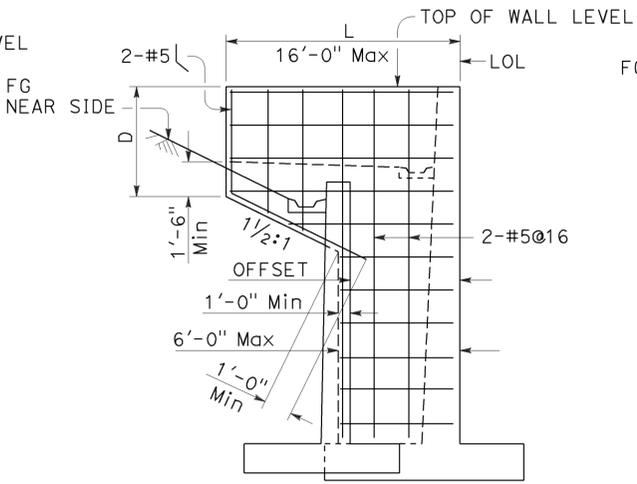
(For return wall Type "D")



ELEVATION

RETURN WALL TYPE "A"

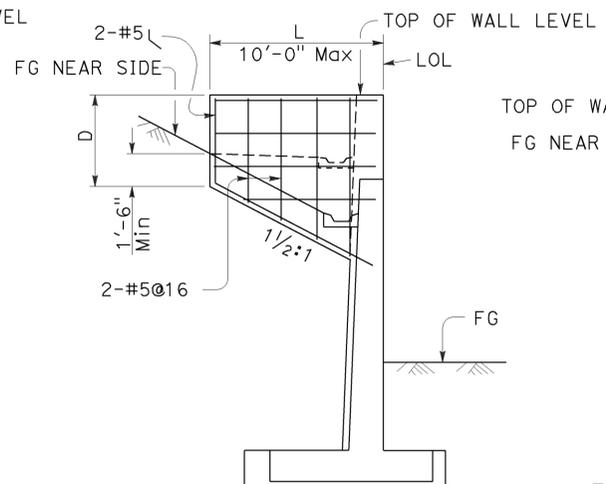
Use where H=8' or less



ELEVATION

RETURN WALL TYPE "B"

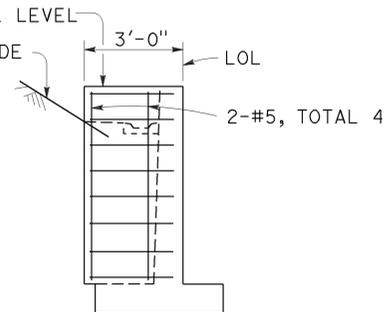
Use where H=10' or more on offset walls



ELEVATION

RETURN WALL TYPE "C"

Use where H=10' or more on straight walls



ELEVATION

RETURN WALL TYPE "D"

Use where H=6' or less

DESIGN CONDITIONS:

Design "H" may be exceeded by 6" before going to the next size. Special footing design is required where foundation material is incapable of supporting bearing stress listed in table

Return wall not required unless shown elsewhere

DESIGN NOTES:

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments

LIVE LOAD: Surcharge on level ground surface

SOIL: $\phi = 34^\circ$
 $\gamma = 120$ pcf

REINFORCED CONCRETE: $f_y = 60,000$ psi
 $f_c' = 3,600$ psi

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

RETAINING WALL DETAILS No. 1

NO SCALE

RSP B3-5 DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN B3-5 DATED MAY 20, 2011 - PAGE 277 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B3-5

2010 REVISED STANDARD PLAN RSP B3-5

2010 REVISED STANDARD PLAN RSP B3-7B

SYMBOLS:

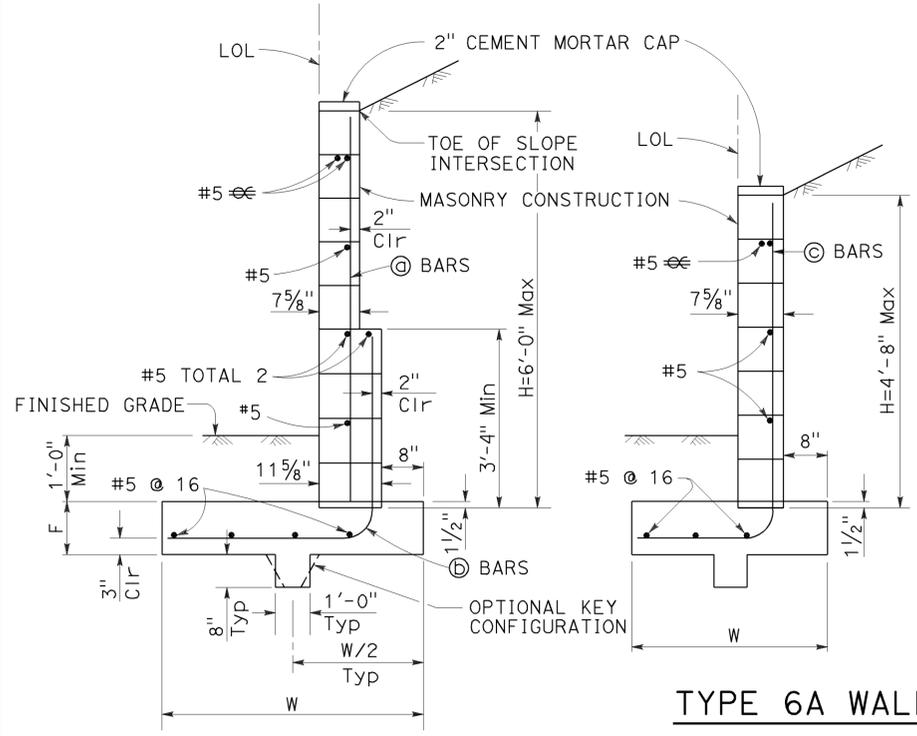
Ser - service limit state 1
 Str - strength limit state 1
 Ext - extreme event limit state I
 B' - effective footing width (ft)
 q_o - net bearing stress (ksf), OG assumed to be FG at toe
 q_o - gross uniform bearing stress (ksf)

DESIGN NOTES:

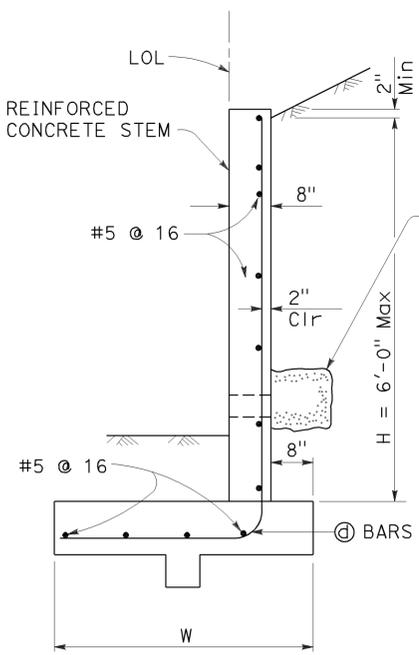
TO ACCOMPANY PLANS DATED 09-15-14
 DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments
 Building Code Requirements for Masonry Structures (TMS 402-08/ACI 530-08/ASCE 5-08)
 LS: 240 psf surcharge on level ground surface as limited by Guard Railing location
 SEISMIC: k_h = 0.2
 k_v = 0.0
 SOIL: φ = 34°
 γ = 120 pcf
 REINFORCED CONCRETE: f'c = 3,600 psi
 fy = 60,000 psi
 REINFORCED MASONRY: fm' = 1,500 psi
 fy = 60,000 psi
 LOAD COMBINATIONS AND LIMIT STATES:
 Service I Q = 1.00DC+1.00EV+1.00EH+1.00LS
 Strength I Q = αDC+βEV+ηEH+1.75LS
 Extreme I Q = 1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE

Where:

Q: Force Effects
 α: 1.25 or 0.90, Whichever Controls Design
 β: 1.35 or 1.00, Whichever Controls Design
 η: 1.50 or 0.90, Whichever Controls Design
 DC: Dead Load of Structure Components
 EH: Horizontal Earth Fill Pressure
 EV: Vertical Earth Pressure from Earth Fill Weight
 LS: Live Load Surcharge
 EQE: Seismic Earth Pressure
 EQD: Soil and Structural and Nonstructural Components Inertia



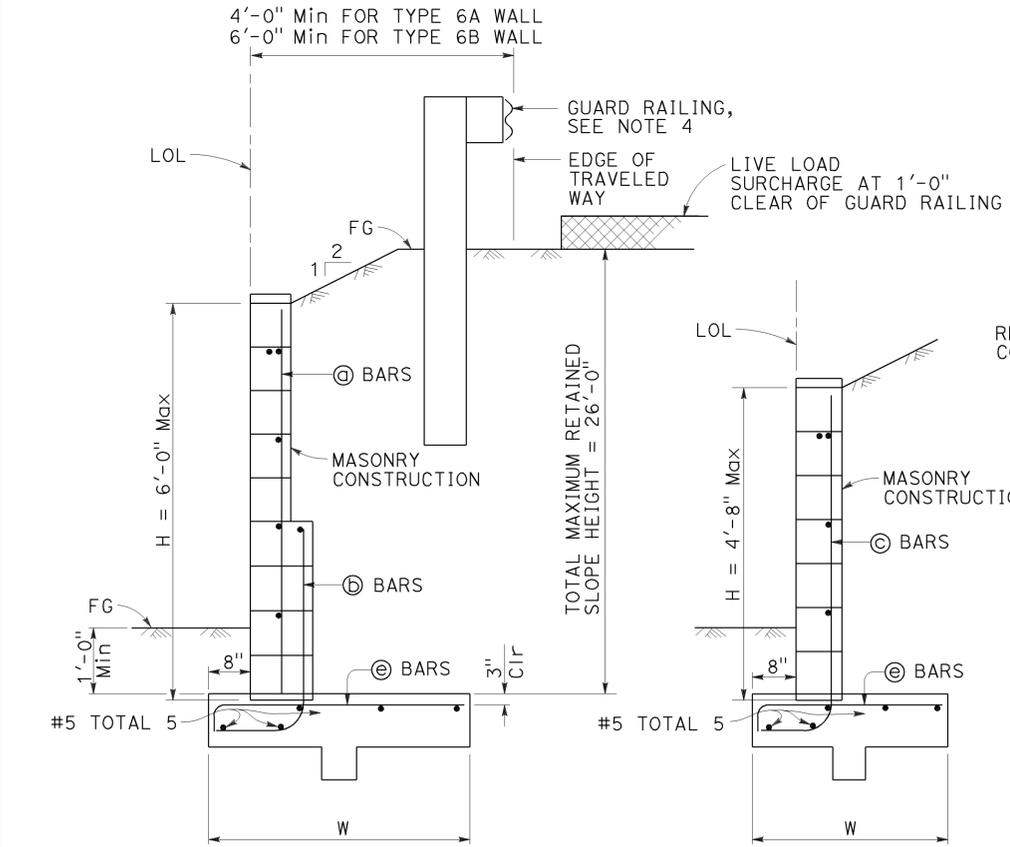
TYPE 6A WALL



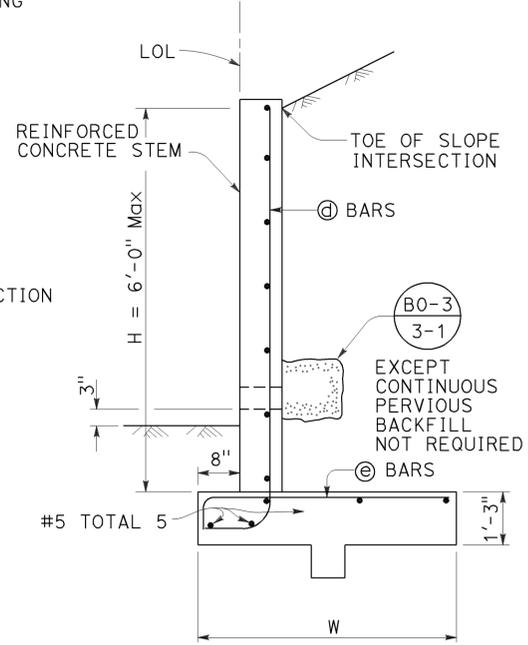
(B0-3)
 3-1
 EXCEPT CONTINUOUS PERVIOUS BACKFILL NOT REQUIRED

NOTES:

- For details not shown at "6B", see "6A", similarly, for details not shown at "6A", see "6B".
- Design loading for both Type "6A" and "6B" is as shown at "6B".
- Type 6 retaining wall shall be limited to use for walls of Design H of 6'-0" or less.
- Where traffic is adjacent to the top of wall, guard railing should be set back from the top front face of wall at least 4'-0" or 6'-0", dependent on wall type.
- For reinforced concrete wall stem joint details, see (B0-3) 3-3 and (B0-3) 3-4.
- No splices are allowed on @, ⊕, ⊙, and ⊗ bars.
- See "Retaining Wall Type 6 Details" sheet for Elevation View and Footing Step Details.



TYPE 6B WALL



(B0-3)
 3-1
 EXCEPT CONTINUOUS PERVIOUS BACKFILL NOT REQUIRED

TYPE 6A WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

DESIGN H	3'-4"	4'-0"	4'-8"	5'-4"	6'-0"
W	3'-8"	4'-1"	4'-8"	5'-3"	6'-9"
F	1'-0"	1'-0"	1'-2"	1'-3"	1'-4"
⊕ BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
⊙ BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
⊗ BARS	#5 @ 16	#5 @ 16	#5 @ 16	NONE	NONE
⊘ BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16	#6 @ 16
Ser: B', q _o	3.4, 0.3	3.8, 0.3	4.3, 0.3	4.9, 0.4	6.0, 0.4
Str: B', q _o	3.3, 0.7	3.6, 0.7	4.1, 0.8	4.7, 0.8	5.7, 0.9
Ext: B', q _o	1.3, 1.9	1.4, 2.0	1.7, 2.1	1.9, 2.2	3.9, 1.4

TYPE 6B WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

DESIGN H	3'-4"	4'-0"	4'-8"	5'-4"	6'-0"
W	4'-6"	5'-1"	5'-7"	6'-2"	6'-9"
⊕ BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
⊙ BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
⊗ BARS	#5 @ 16	#5 @ 16	#5 @ 16	NONE	NONE
⊘ BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16	#6 @ 16
⊙ BARS	#5 @ 16	#5 @ 16	#6 @ 16	#6 @ 16	#7 @ 16
Ser: B', q _o	3.3, 0.6	3.7, 0.8	4.0, 0.9	4.5, 1.0	4.1, 1.4
Str: B', q _o	1.9, 1.4	2.3, 1.6	2.5, 1.8	2.8, 1.9	1.8, 3.6
Ext: B', q _o	1.5, 2.8	1.8, 3.1	1.9, 3.6	2.1, 3.8	2.4, 3.9

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
RETAINING WALL TYPE 6 (CASE 2)
 NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	306	332

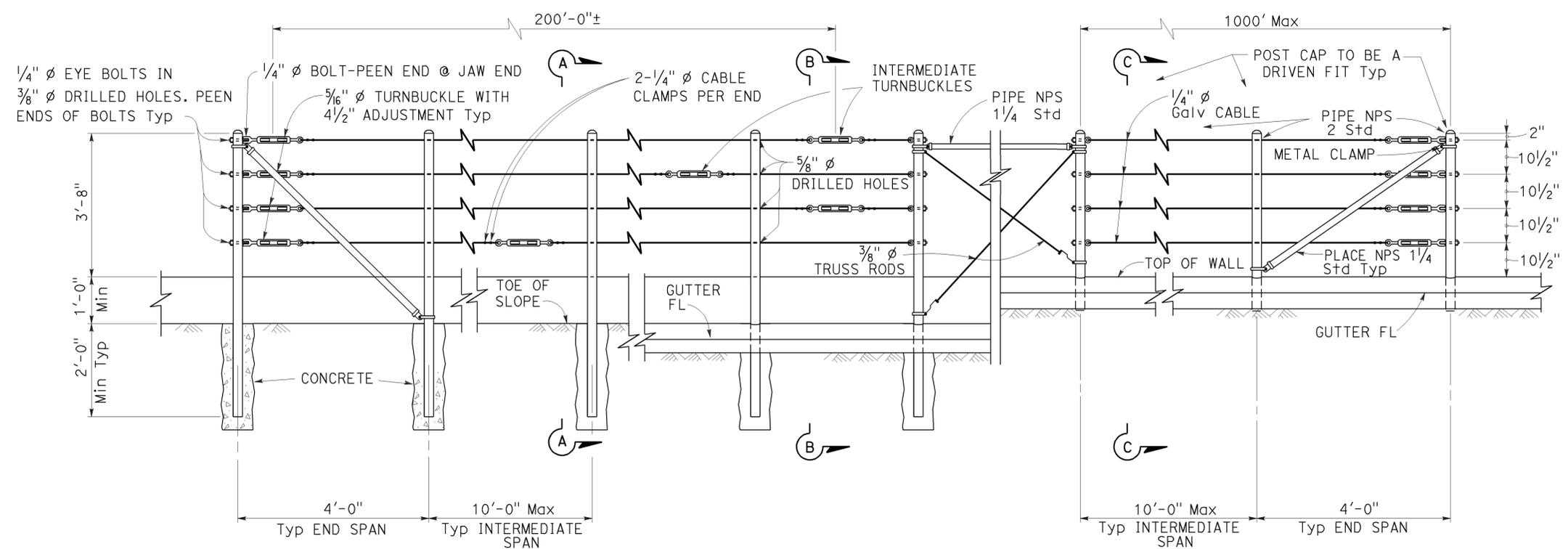
REGISTERED CIVIL ENGINEER

October 21, 2011
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 09-15-14

REGISTERED PROFESSIONAL ENGINEER
Tillat Satter
No. C42892
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

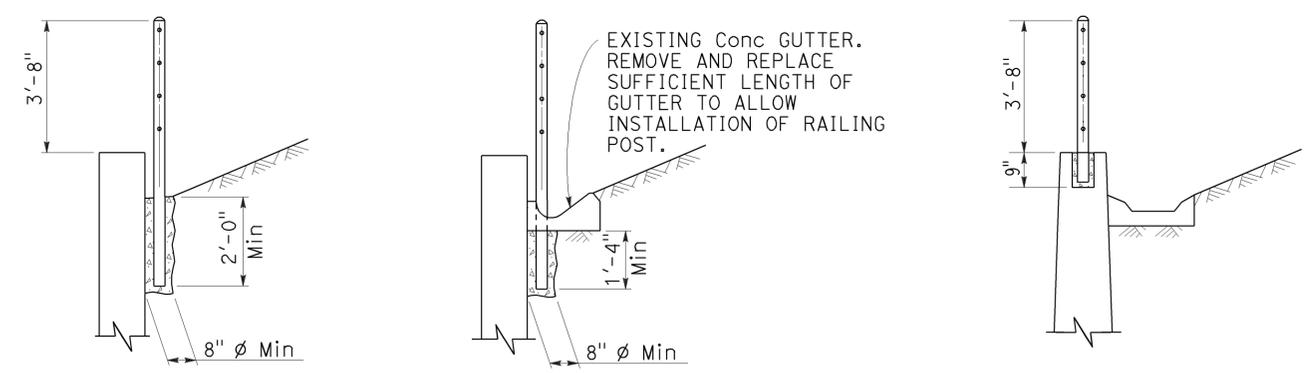


EXISTING WALL (WITHOUT GUTTER) Existing
RETAINING WALL (WITH GUTTER) Existing
RETAINING WALL (WITH GUTTER) New construction

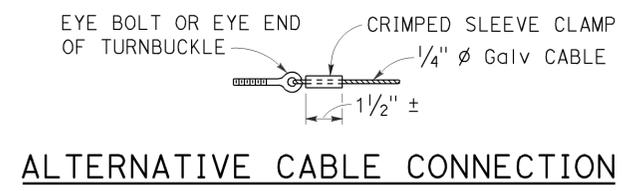
ELEVATION

NOTES:

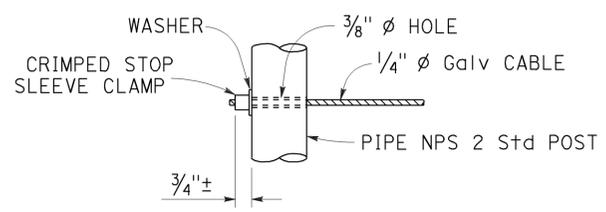
1. Maximum distance between turnbuckles shall be 200'-0"±.
2. Intermediate turnbuckles to be placed in adjacent spans.
3. Cable shall not be spliced between intermediate turnbuckles and end posts.
4. Posts to be vertical.
5. Alignment of holes in posts may vary to conform to slope of top of retaining wall.
6. The Contractor shall verify all dependent dimensions in the field before ordering or fabricating any material.
7. Line posts shall be braced horizontally and trussed diagonally in both directions at intervals not to exceed 1000'.
8. Post pockets to be centered in top of wall.
9. Typical end spans, braced in both directions, shall be constructed at changes in line where the angle of deflection is 15° or more.
10. Provide thimbles at all cable loops.



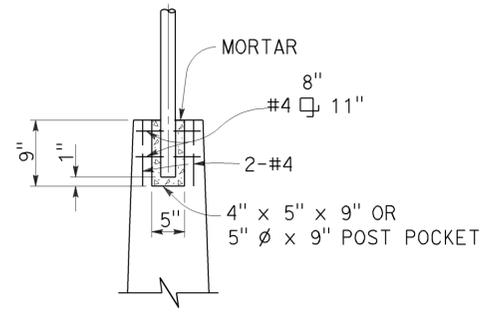
SECTION A-A Existing
SECTION B-B Existing
SECTION C-C New construction



ALTERNATIVE CABLE CONNECTION



ALTERNATIVE DEAD END ANCHORAGE



POST POCKET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CABLE RAILING

NO SCALE

RSP B11-47 DATED OCTOBER 21, 2011 SUPERSEDES STANDARD PLAN B11-47 DATED MAY 20, 2011 - PAGE 293 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B11-47

2010 REVISED STANDARD PLAN RSP B11-47

NOTES:

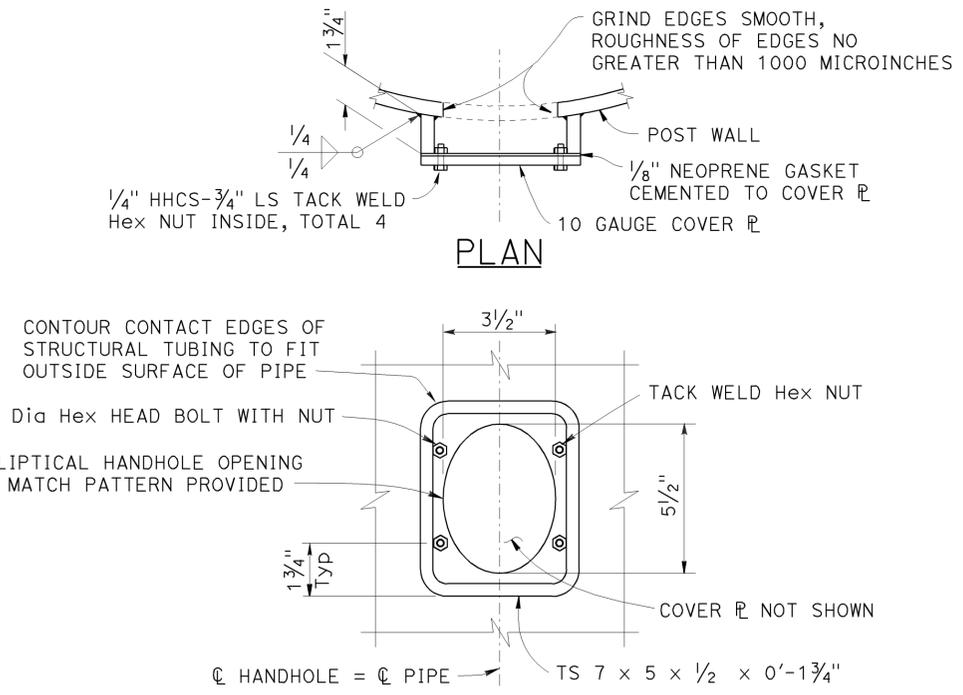
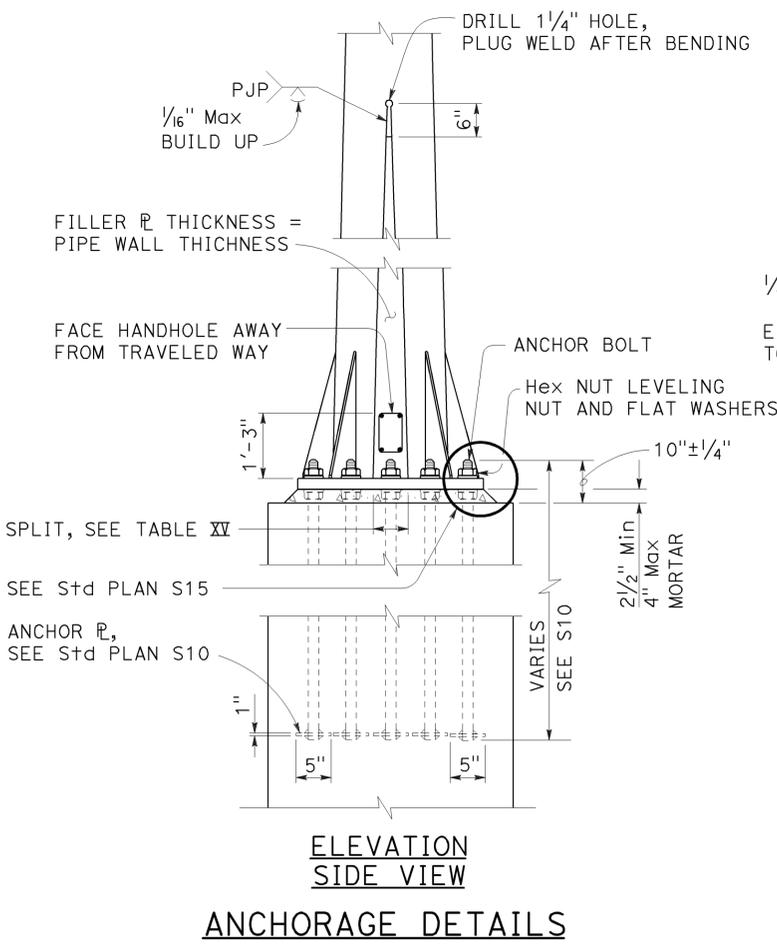
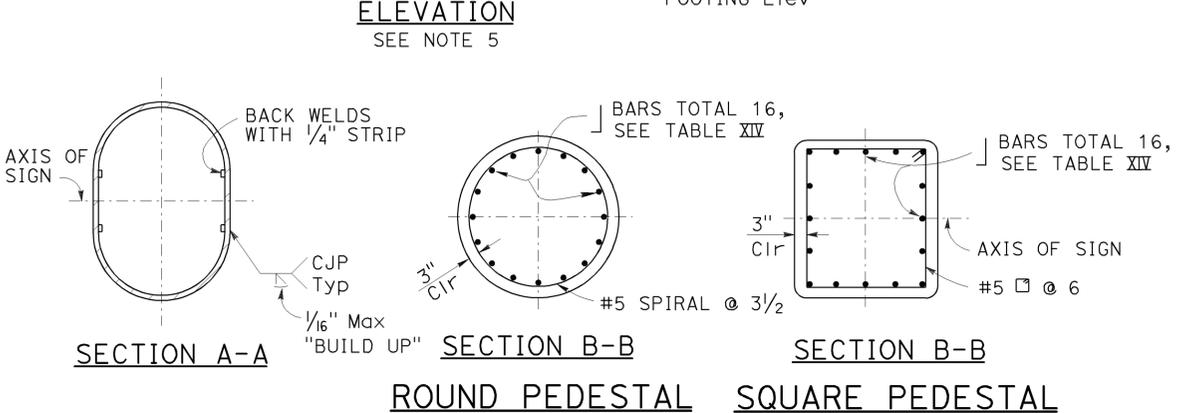
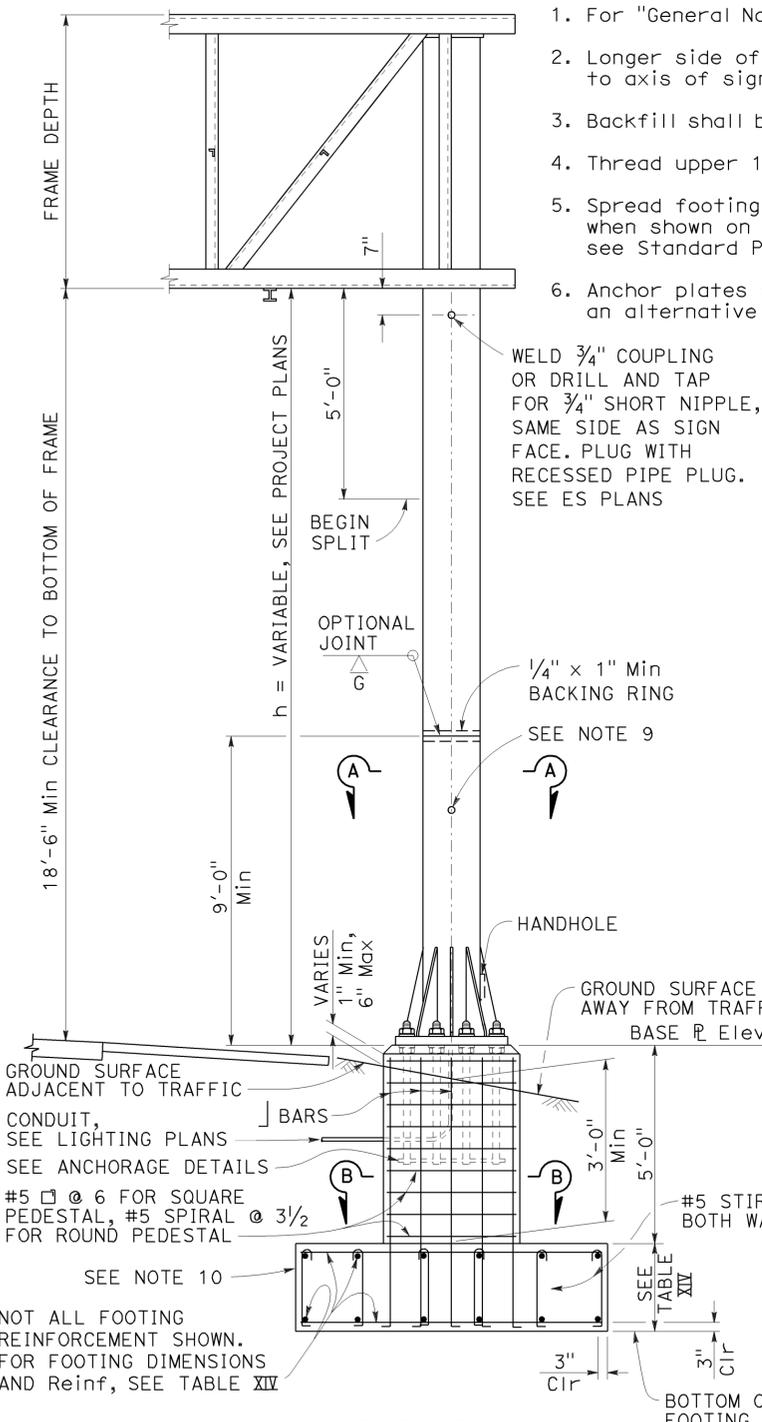
- For "General Notes", see Revised Standard Plan RSP S1.
- Longer side of post and footing (longitudinal) shall be normal to axis of sign.
- Backfill shall be in place prior to erection of post.
- Thread upper 10" of anchor bolts and galvanize upper 1'-0".
- Spread footing with square pedestal shown, use pile foundation when shown on the Project Plans. For pile foundation details, see Standard Plan S15.
- Anchor plates may be retained with Hex nut or formed head as an alternative to details shown.

- When foundation is located on a steep slope with exposed face of concrete adjacent to traffic, see "Detail C" on Standard Plan S15.
- Slope protection required when indicated on Project Plans.
- Weld coupling or drill and tap for 1/2" C chase nipple, perpendicular to sign panel axis away from approaching traffic. Plug with recessed pipe plug. See Standard Plan ES-15C.
- Excavate to neat lines and place concrete against undisturbed material.

TO ACCOMPANY PLANS DATED 09-15-14

TABLE XIV

POST TYPE	PIPE			ROUND PEDESTAL					SQUARE PEDESTAL					SPREAD FOOTING						
	NPS	THICKNESS	SPLIT	PEDESTAL SIZE Dia	VERTICAL J-BARS		SPIRAL		PEDESTAL SIZE SQUARE	VERTICAL J-BARS		HOOP		(SEE NOTE 2)						
					EQUALLY SPACED TOTAL	BAR SIZE	BAR SIZE	PITCH		EQUALLY SPACED TOTAL	BAR SIZE	# OF BARS EA FACE	BAR SIZE	SPACING	WIDTH		LONGITUDINAL		FOOTING STIRRUPS	
I-S	14	1/2"	5"	5'-3"	16	#10	#5	3 1/2"	5'-3"	16	#10	5	#5	6"	7'-0" x 13'-0" x 2'-6"	14-#6	14-#7	10-#9	10-#9	#5 @ 12
II-S	16		6"												7'-0" x 13'-0" x 2'-6"	14-#6	14-#7	10-#9	10-#9	
III-S	18		7"												7'-0" x 13'-0" x 2'-6"	14-#6	14-#7	11-#9	11-#9	
IV-S	20		8"												8'-0" x 14'-0" x 2'-6"	15-#7	15-#7	12-#9	12-#11	
V-S	24		8"	5'-9"		#11			5'-9"		#11				8'-0" x 16'-0" x 3'-0"	17-#7	17-#7	12-#9	12-#11	
VI-S	24	3 1/32"	10"	5'-9"		#11			5'-9"		#11				9'-0" x 17'-0" x 3'-0"	18-#7	18-#7	12-#9	12-#11	
VII-S	24	3 1/32"	10"	5'-9"		#11			5'-9"		#11				10'-0" x 18'-0" x 3'-0"	19-#7	19-#7	13-#9	13-#11	



TYPICAL DETAILS OF HANDHOLE AND COVER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**OVERHEAD SIGNS-TRUSS
TWO POST TYPE
POST TYPES I-S THROUGH VII-S**

NO SCALE

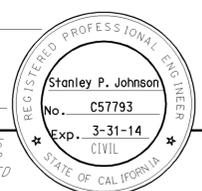
RSP S9 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN S9 DATED MAY 20, 2011 - PAGE 342 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP S9

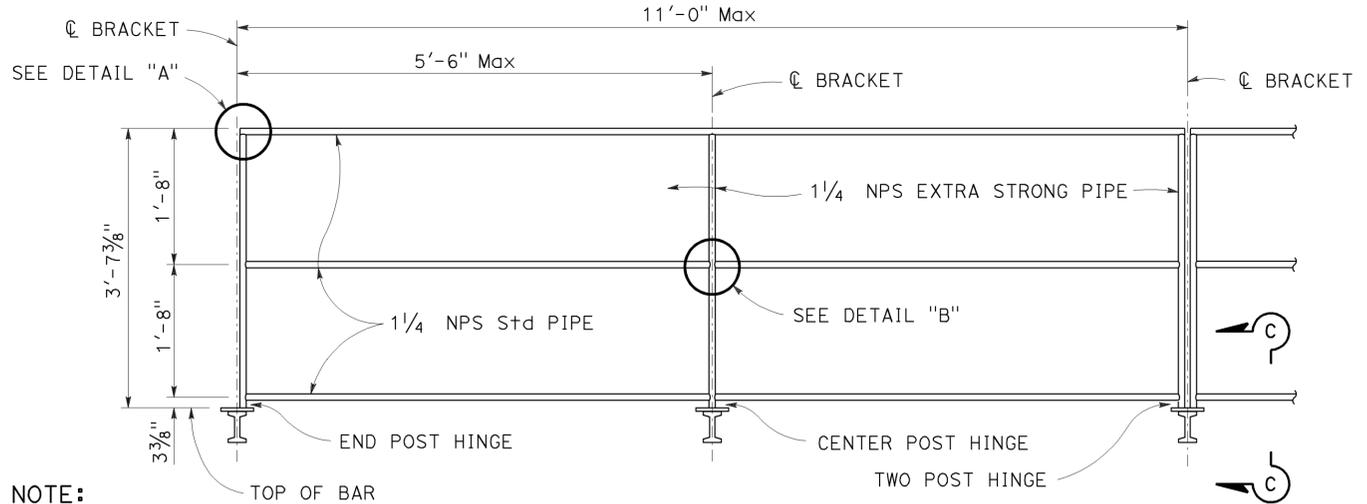
2010 REVISED STANDARD PLAN RSP S9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	308	332

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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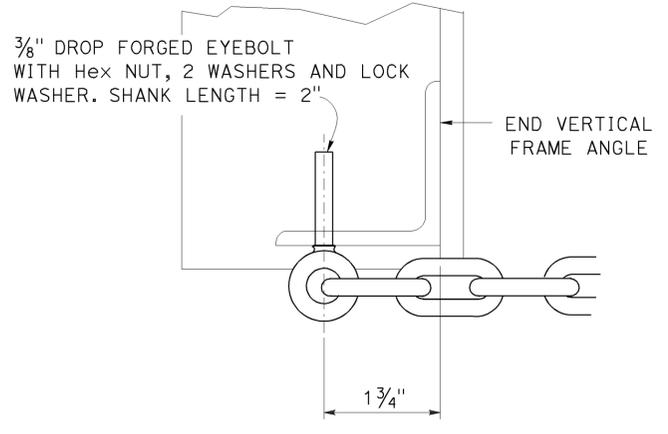
TO ACCOMPANY PLANS DATED 09-15-14



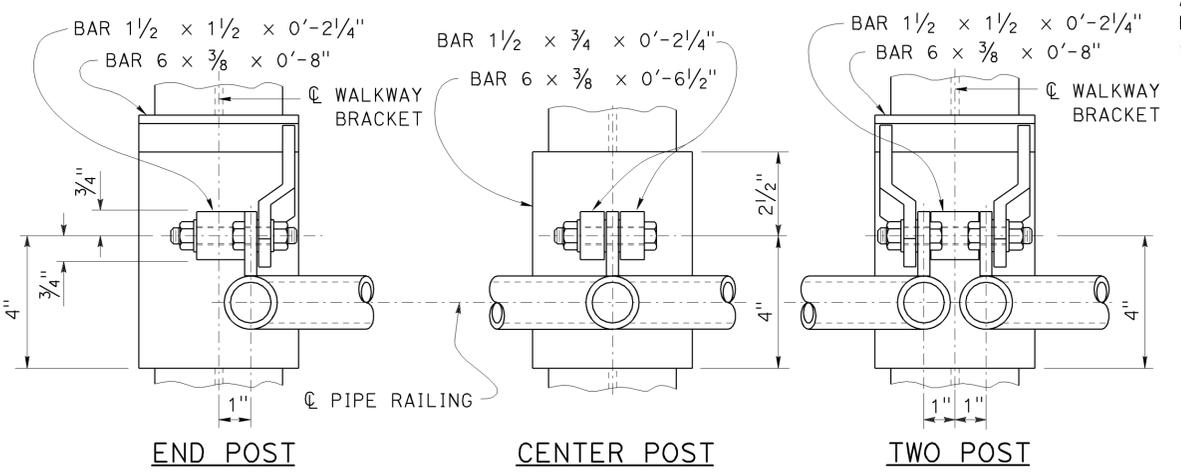
SAFETY RAILING ELEVATION

NOTE:
Chain assembly behind (see detail this page)

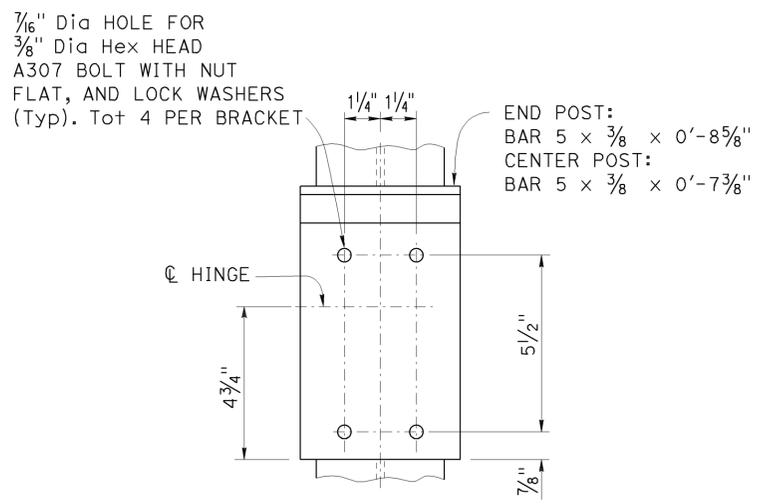
NOTE:
See Standard Plans S101 and S105 and S109 for walkway bracket spacing.



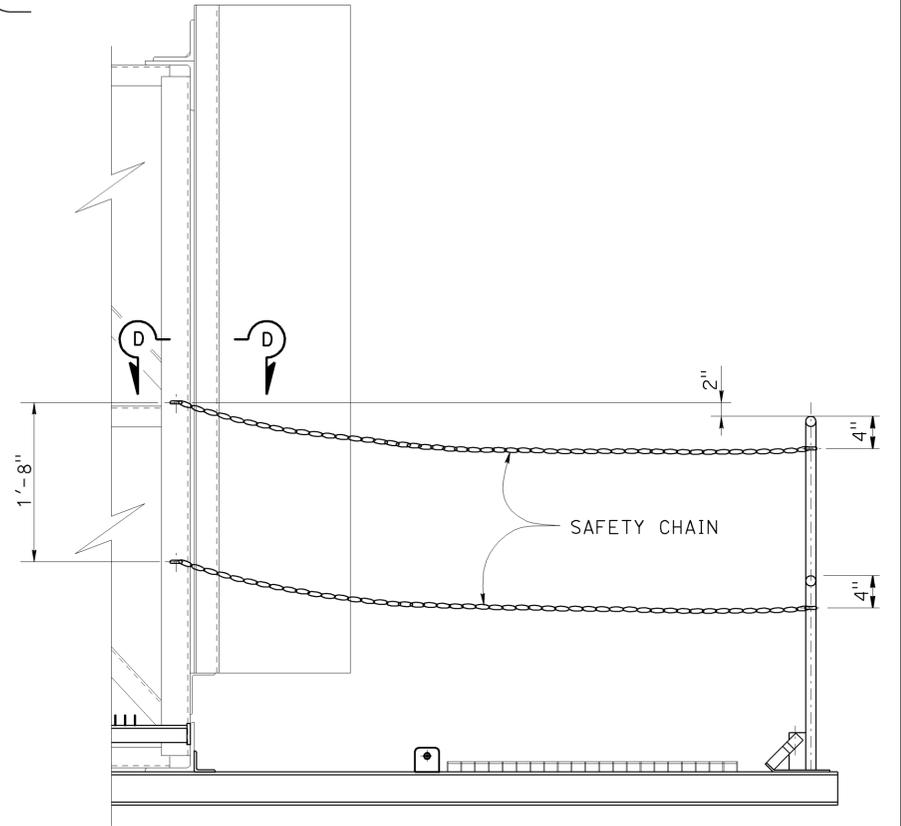
SECTION D-D



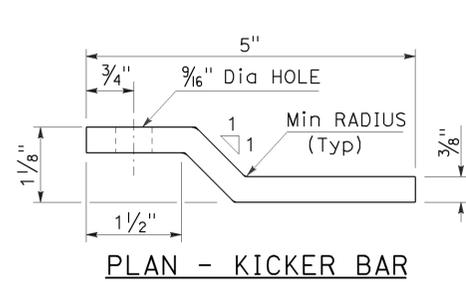
WELDED HINGE - PLAN



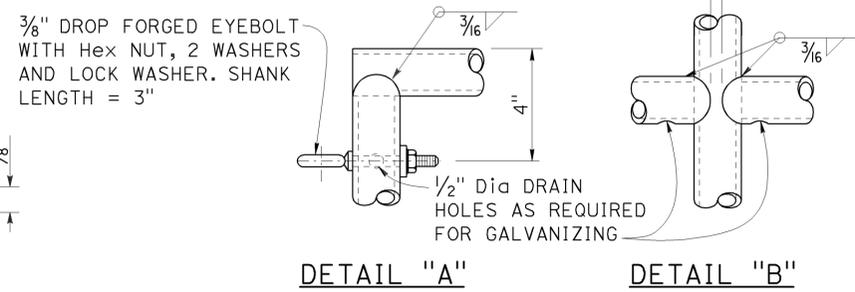
TYPICAL BOLTED (ALTERNATIVE) HINGED CONNECTION



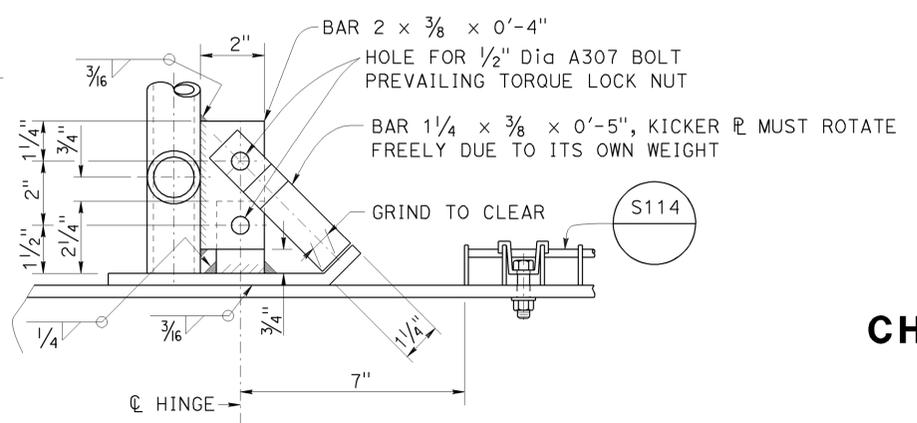
CHAIN ASSEMBLY



PLAN - KICKER BAR



NOTE:
Alternative venting methods may be used if approved by the Engineer.



SECTION C-C ELEVATION VIEW

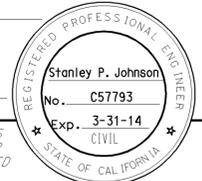
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**OVERHEAD SIGN-TRUSS
 SINGLE POST TYPE
 WALKWAY SAFETY
 RAILING DETAILS
 CHANGEABLE MESSAGE SIGNS
 MODEL 500 AND 510**
 NO SCALE

RSP S140 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN S140 DATED MAY 20, 2011 - PAGE 422 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP S140

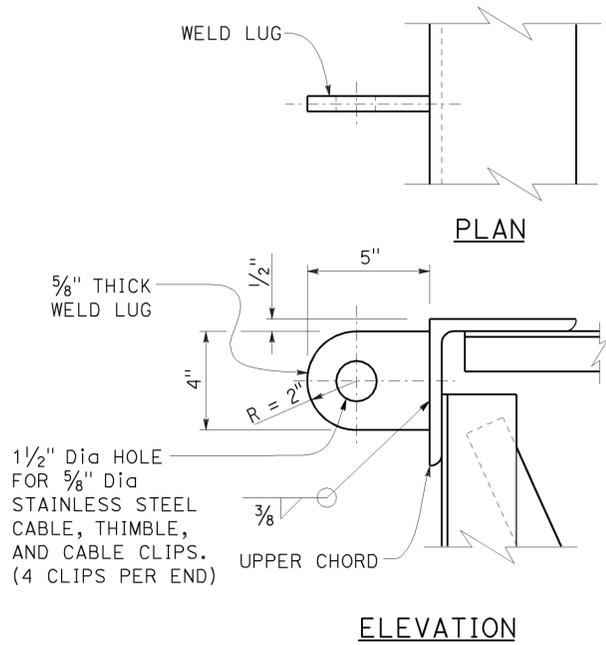
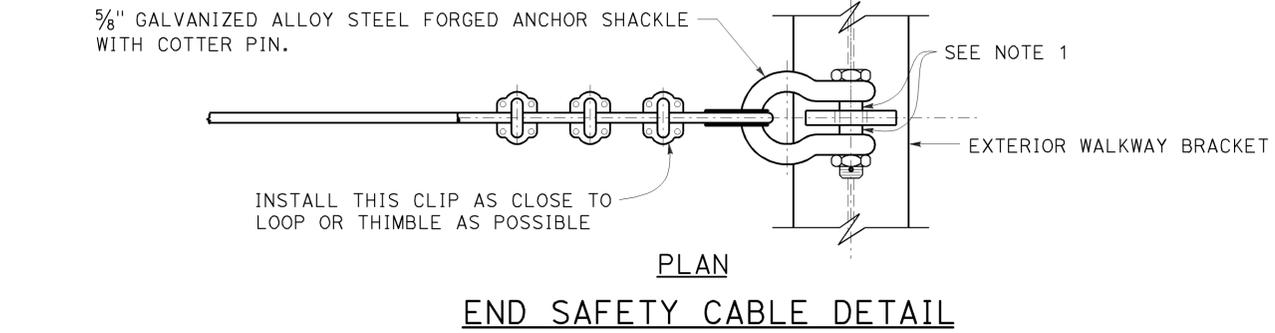
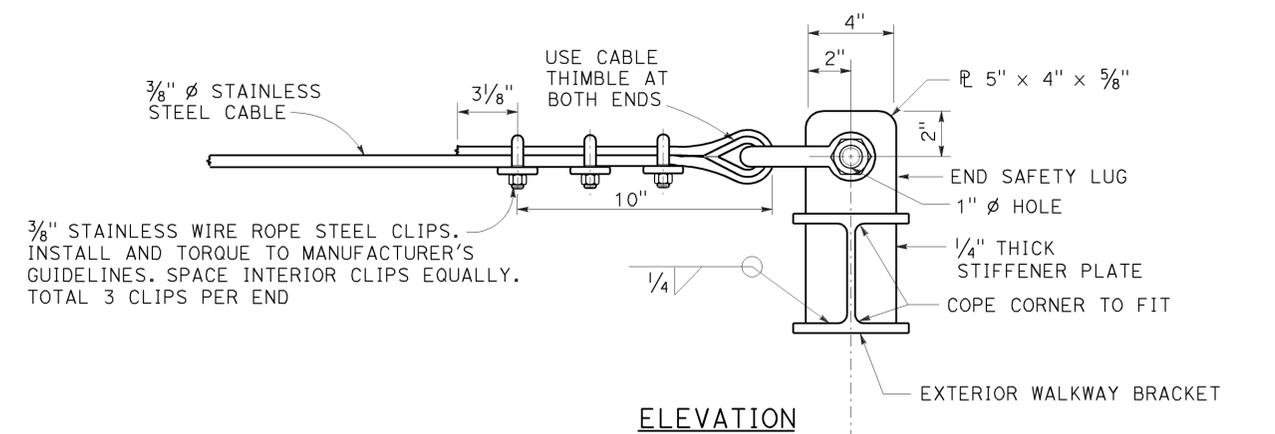
2010 REVISED STANDARD PLAN RSP S140

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	309	332


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 09-15-14

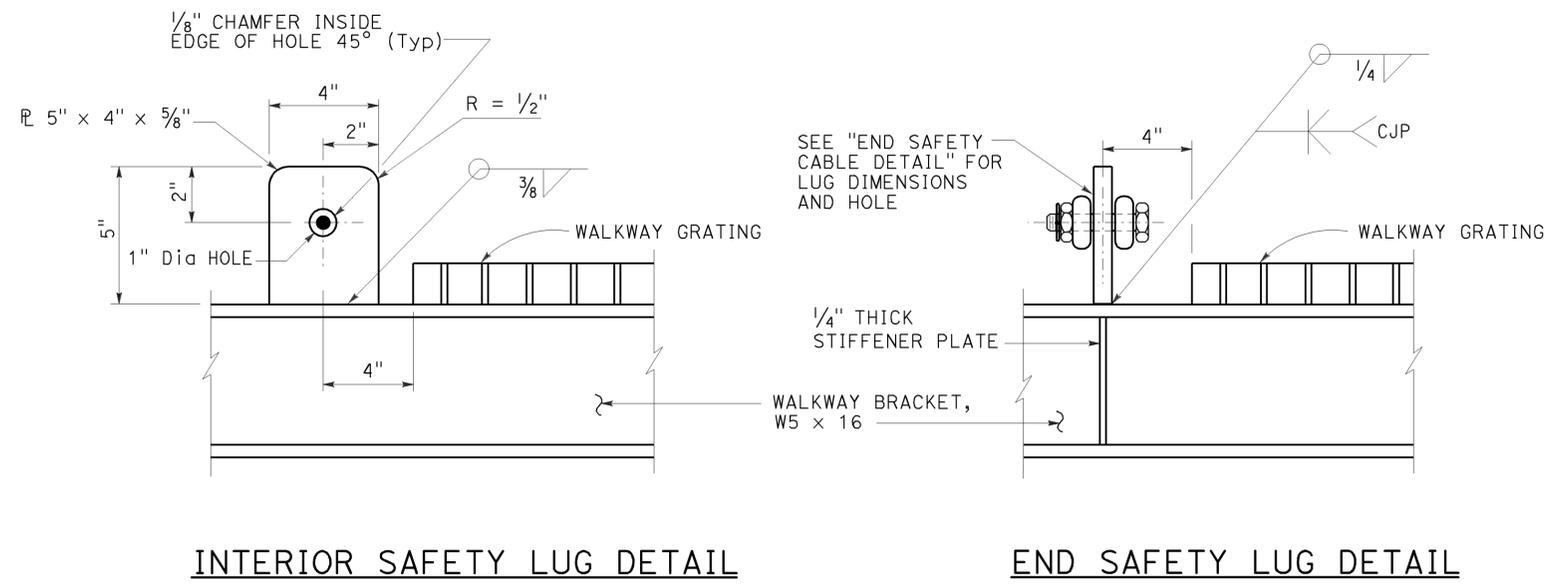
2010 REVISED STANDARD PLAN RSP S141



NOTE: Backside weld lug shall be installed only for projects requiring backside walkways.

NOTES:

1. Place an equal amount of washers on each side to align cable with end lug without restricting shackle bolt rotation or contacting cable.
2. For walkway grating details, see Standard Plan S114.



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**OVERHEAD SIGN-TRUSS
 SINGLE POST TYPE
 SAFETY CABLE
 ANCHORAGE DETAILS
 CHANGEABLE MESSAGE SIGNS
 MODEL 500 AND 510**

NO SCALE

RSP S141 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN S141 DATED MAY 20, 2011 - PAGE 423 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP S141

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
11	SD	163	8.4/9.4	310	332

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 09-15-14

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

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

MISCELLANEOUS ELECTROLIERS

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

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

STANDARD ELECTROLIER

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

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

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

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TO ACCOMPANY PLANS DATED 09-15-14

CONDUIT

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

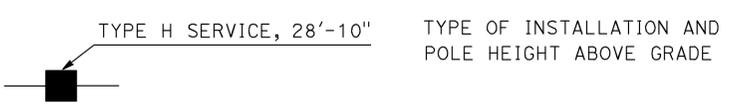
SIGNAL EQUIPMENT

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)
		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

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

POLE-MOUNTED SERVICE DESIGNATION



FLASHING BEACON

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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

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

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER

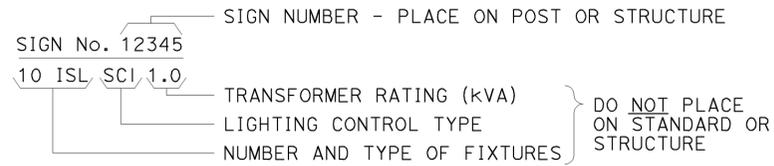
July 19, 2013
 PLANS APPROVAL DATE

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

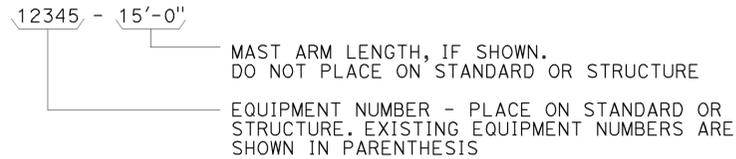
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EQUIPMENT IDENTIFICATION

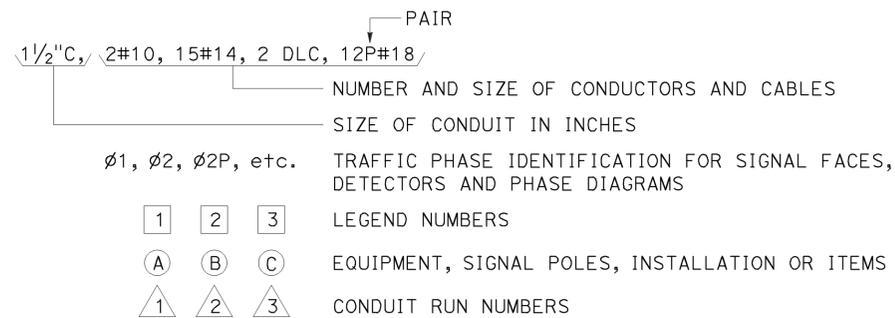
ILLUMINATED SIGN IDENTIFICATION NUMBER:



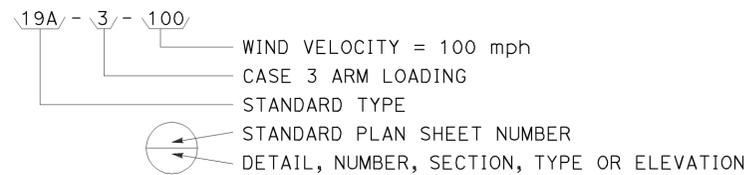
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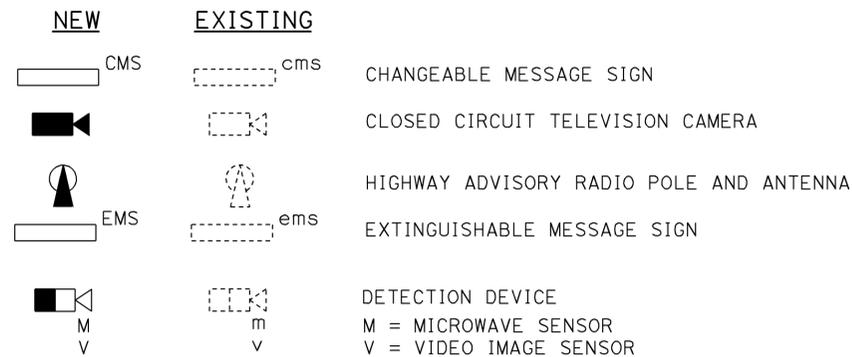
CONDUIT AND CONDUCTOR IDENTIFICATION:



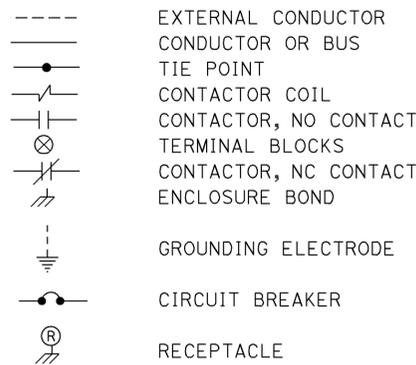
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



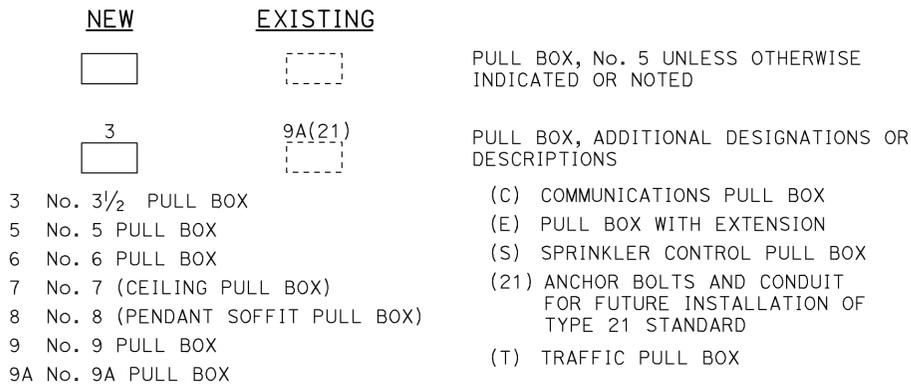
MISCELLANEOUS EQUIPMENT



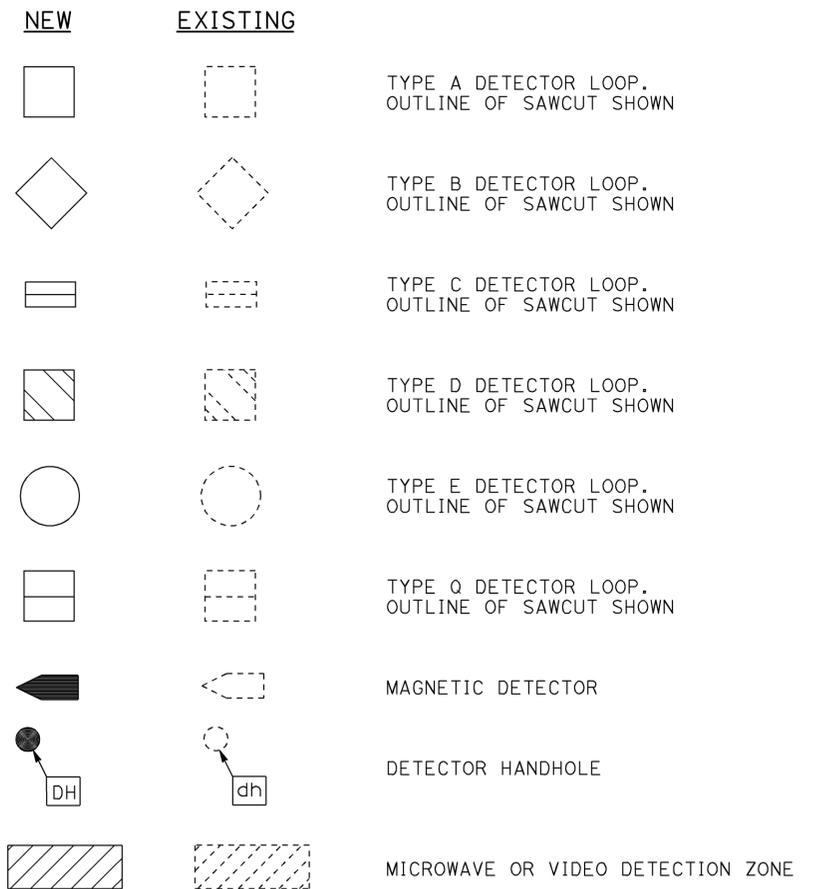
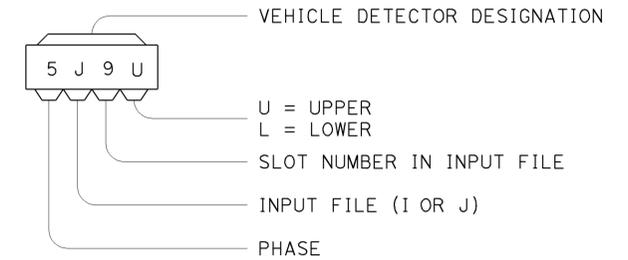
WIRING DIAGRAM LEGEND



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.

2010 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	313	332

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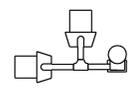
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 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

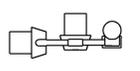
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 09-15-14

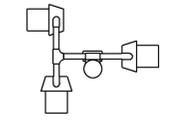
2010 REVISED STANDARD PLAN RSP ES-4A



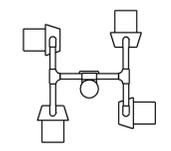
SV-2-TD



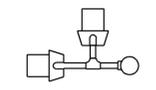
SV-2-TC



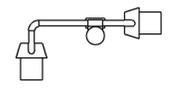
SV-3-TC



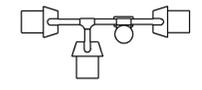
SV-4-TC



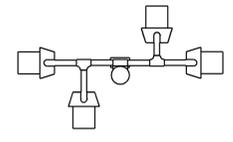
SV-2B



SV-2-TB

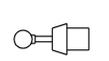


SV-3-TB

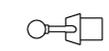


SV-4-TB

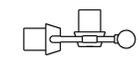
PLAN VIEW OF OTHER SIDE MOUNTINGS



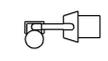
SV



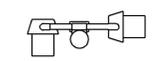
SV-1



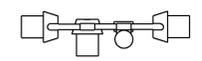
SV-2A



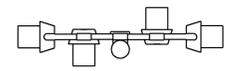
SV-1-T



SV-2-TA



SV-3-TA



SV-4-TA

SIDE MOUNTINGS

ABBREVIATIONS:

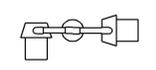
- SV SIDE MOUNTED VEHICLE SIGNALS
- T TERMINAL COMPARTMENT
- TV TOP MOUNTED VEHICLE SIGNALS
- 1, 2, 3, 4 NUMBER OF SIGNAL FACES
(3 - SECTION, UNLESS OTHERWISE INDICATED)
- A, B, C, D CONFIGURATION OF SIGNALS

NOTES:

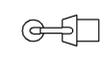
1. Mountings shall be oriented to provide maximum horizontal clearance to adjacent roadway.
2. Bracket arms shall be long enough to permit proper alignment of signals and backplate installation.
3. See Standard Plans ES-4D and ES-4E for attachment fitting details.



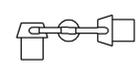
TV-1



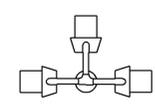
TV-2



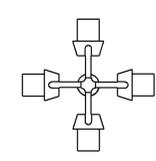
TV-1-T



TV-2-T



TV-3-T



TV-4-T

PLAN VIEW OF TOP MOUNTINGS

TOP MOUNTINGS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (VEHICULAR SIGNAL HEADS
 AND MOUNTINGS)**

NO SCALE

RSP ES-4A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-4A DATED MAY 20, 2011 - PAGE 443 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4A

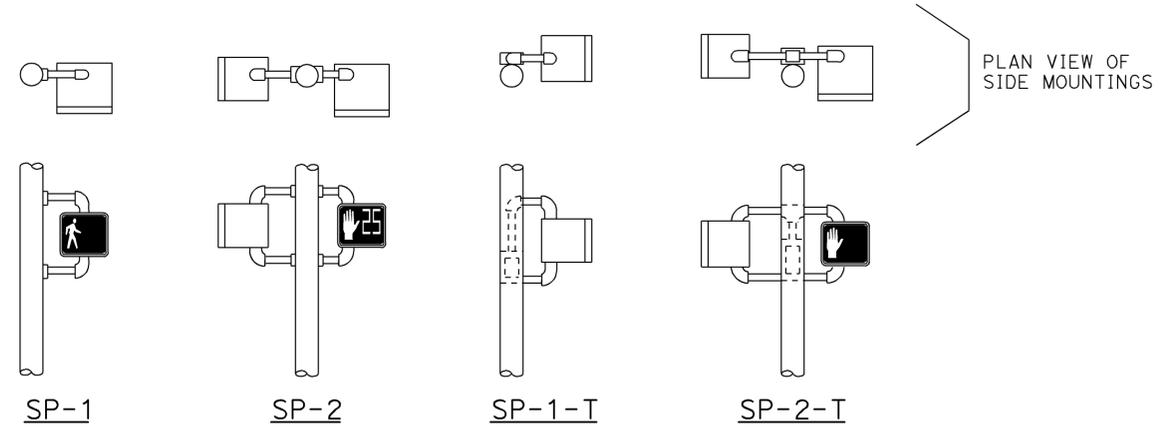
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	314	332

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

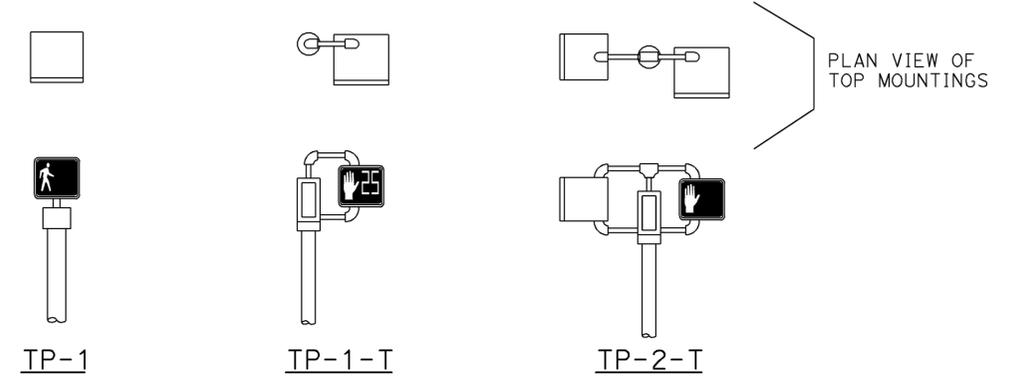
REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 09-15-14



SIDE MOUNTINGS



TOP MOUNTINGS

PEDESTRIAN SIGNALS AND MOUNTINGS

DETAIL A

NOTES:

1. Mounting shall be oriented to provide maximum horizontal clearance to adjacent roadway.
2. Bracket arms shall be long enough to permit proper alignment of signals.
3. See Standard Plan ES-4D for attachment fittings details.

ABBREVIATIONS:

- 1, 2 NUMBER OF SIGNAL FACES
- SP SIDE MOUNTED PEDESTRIAN SIGNAL
- T TERMINAL COMPARTMENT
- TP TOP MOUNTED PEDESTRIAN SIGNAL



PERSON WALKING INTERVAL FLASHING UPRAISED HAND INTERVAL STEADY UPRAISED HAND INTERVAL

PEDESTRIAN SIGNAL MODULE WITH COUNTDOWN

DETAIL B



RAMP METERING SIGN

DETAIL D



PERSON WALKING INTERVAL STEADY UPRAISED HAND INTERVAL

PEDESTRIAN SIGNAL MODULE WITHOUT COUNTDOWN

DETAIL C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(PEDESTRIAN SIGNAL AND
RAMP METERING SIGN)**

NO SCALE

RSP ES-4B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-4B
DATED MAY 20, 2011 - PAGE 444 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4B

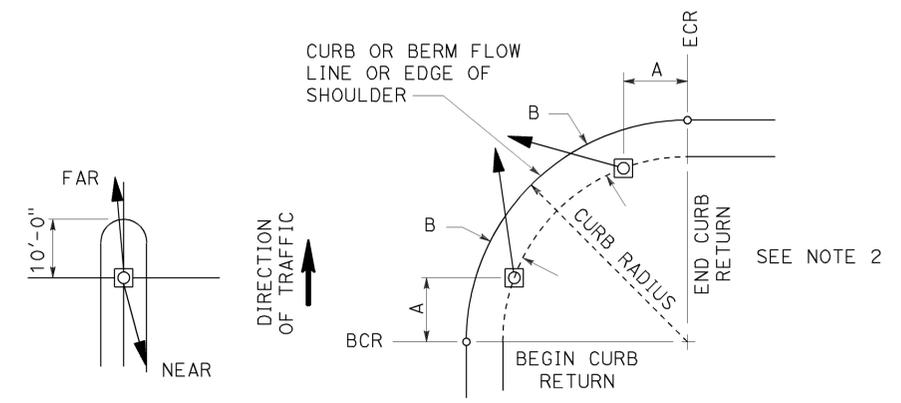
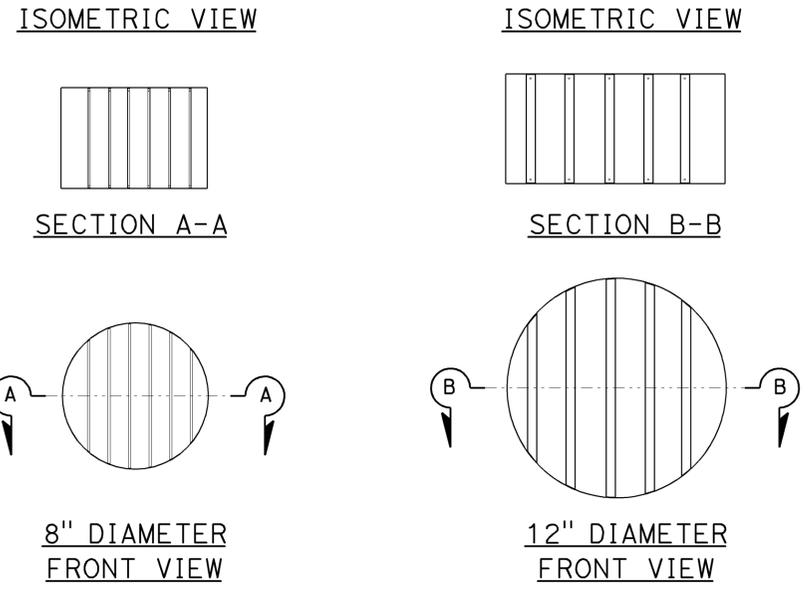
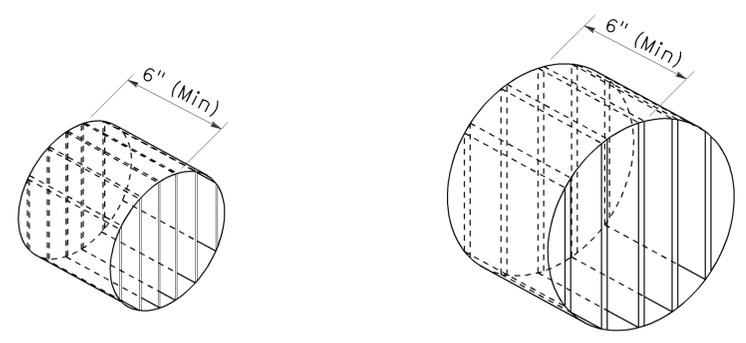
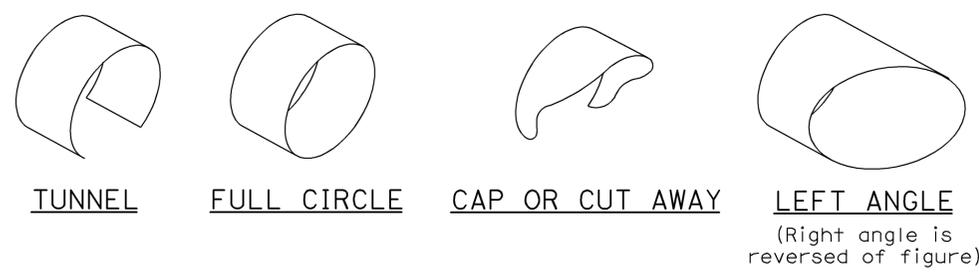
2010 REVISED STANDARD PLAN RSP ES-4B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	315	332

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

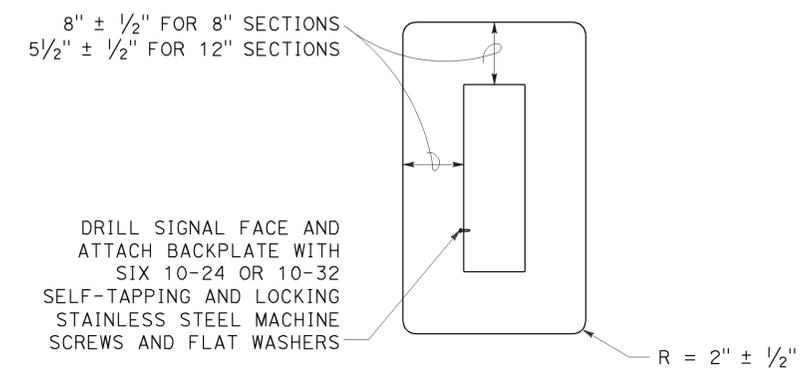
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TO ACCOMPANY PLANS DATED 09-15-14



- NOTES:**
1. Typical signal pole placement unless dimensioned on plans.
 2. For A and B dimensions, see Pole Schedule, or as directed by the Engineer.

VISORS



8" AND 12" SECTIONS

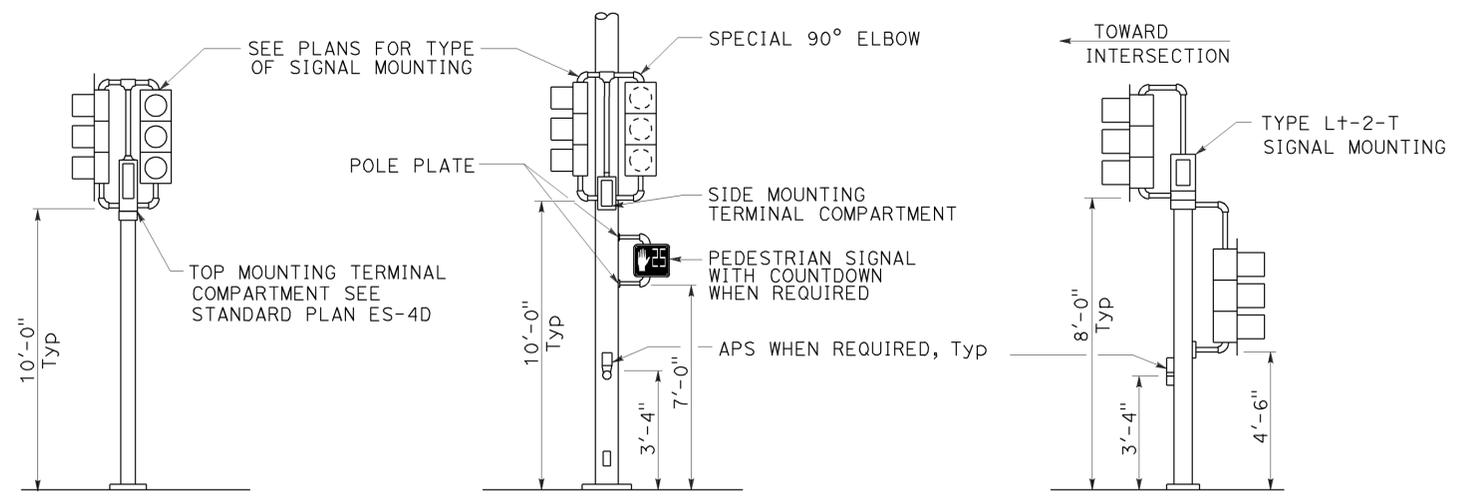
BACKPLATE

1/16" minimum thickness
 3001-14 aluminum or plastic when specified

DIRECTIONAL LOUVER

Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS



TOP MOUNTED SIGNALS (TV)

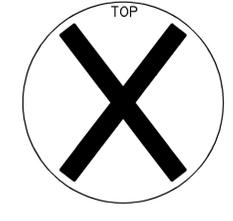
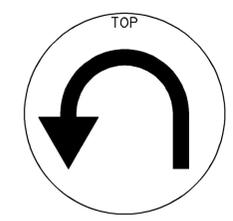
Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

SIDE MOUNTED SIGNALS (SV AND SP)

Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL

Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans



SIGNAL FACES

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (VEHICULAR SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-04C DATED MAY 20, 2011 - PAGE 445 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4C

2010 REVISED STANDARD PLAN RSP ES-4C

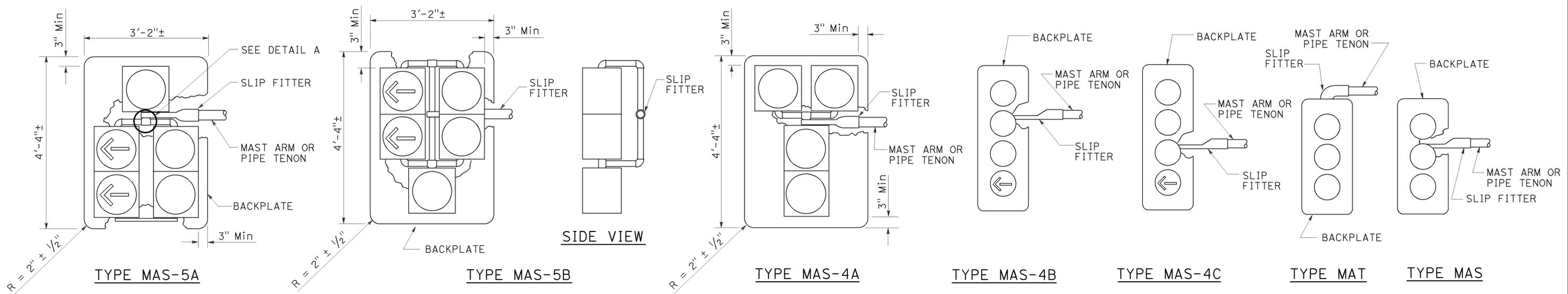
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	316	332

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

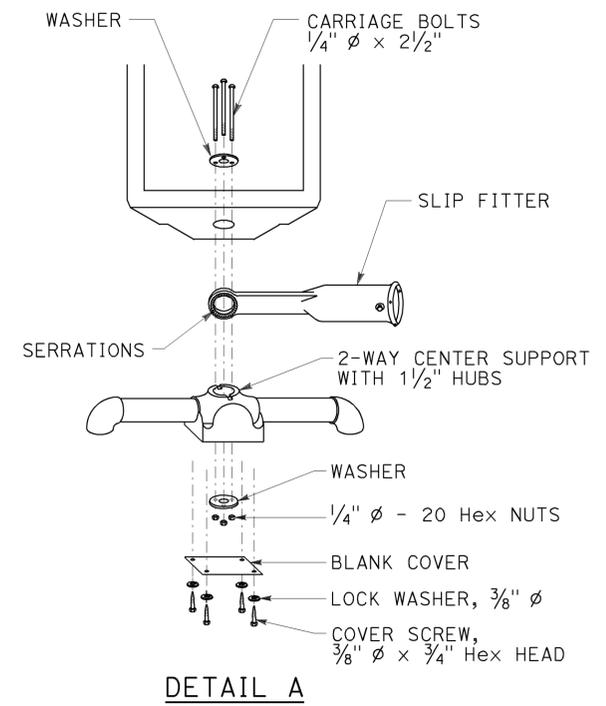
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REGISTERED PROFESSIONAL ENGINEER
 Theresa
 Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

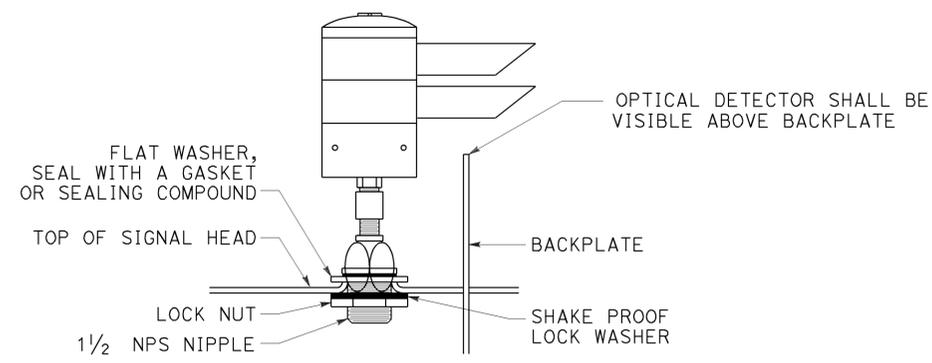
TO ACCOMPANY PLANS DATED 09-15-14



MAST ARM MOUNTINGS



DETAIL A



DETAIL B

**OPTICAL DETECTOR MOUNTING FOR
EMERGENCY VEHICLE DETECTION SYSTEM**

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (VEHICULAR SIGNAL HEADS AND
 OPTICAL DETECTOR MOUNTING)**

NO SCALE

RSP ES-4E DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-4E DATED MAY 20, 2011 - 447 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4E

2010 REVISED STANDARD PLAN RSP ES-4E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	317	332

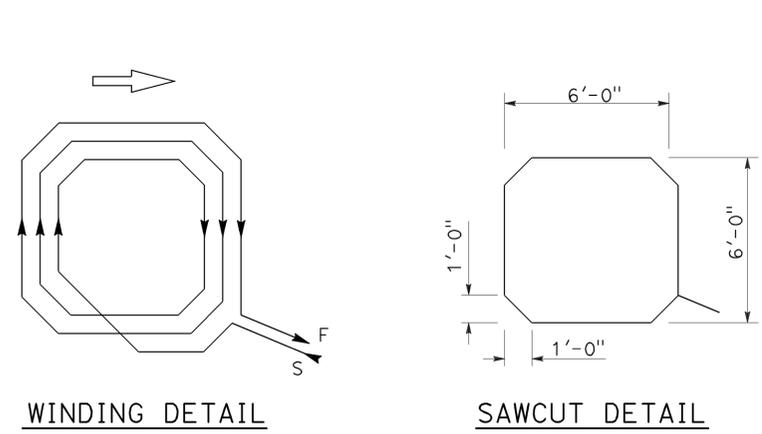
Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

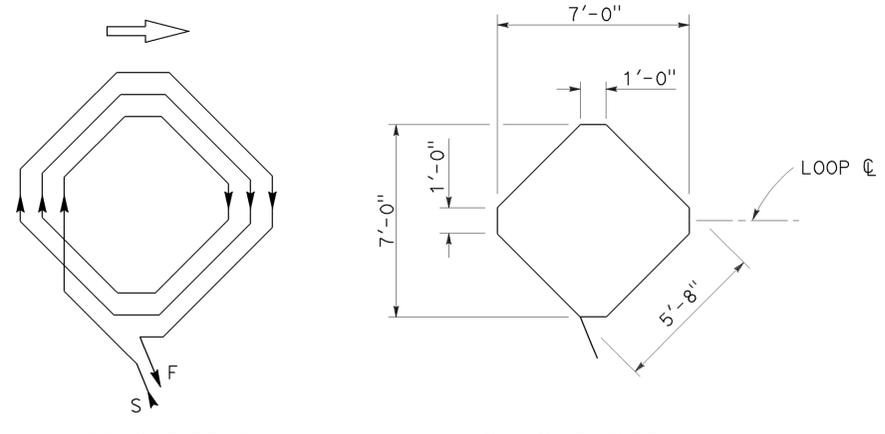
Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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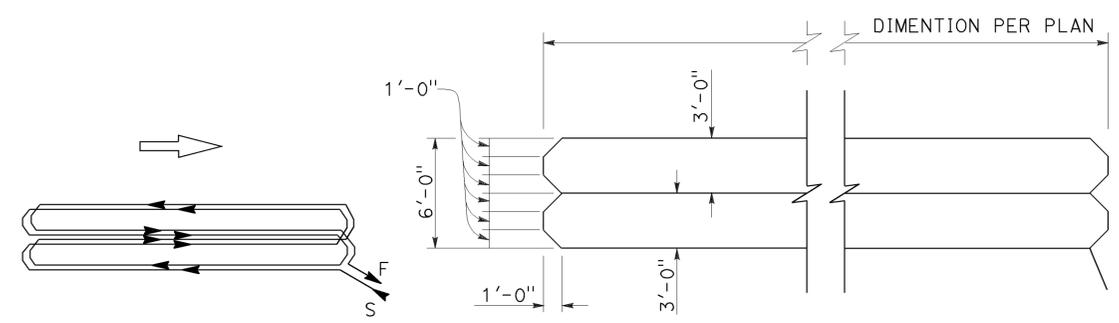
TO ACCOMPANY PLANS DATED 09-15-14



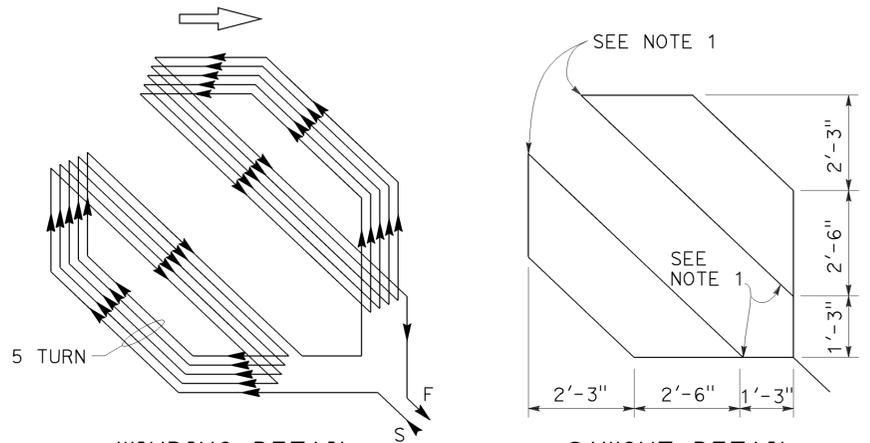
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



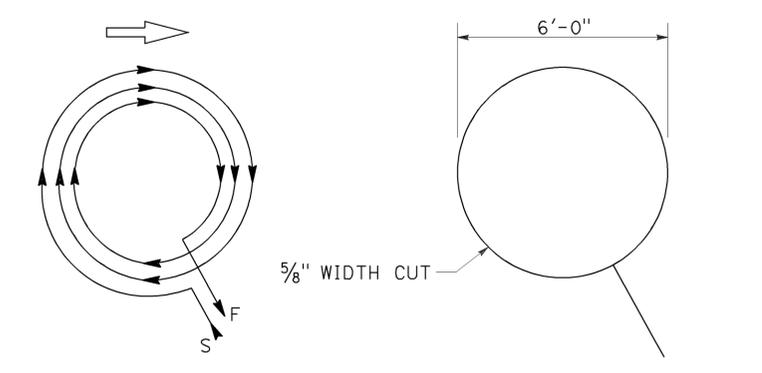
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



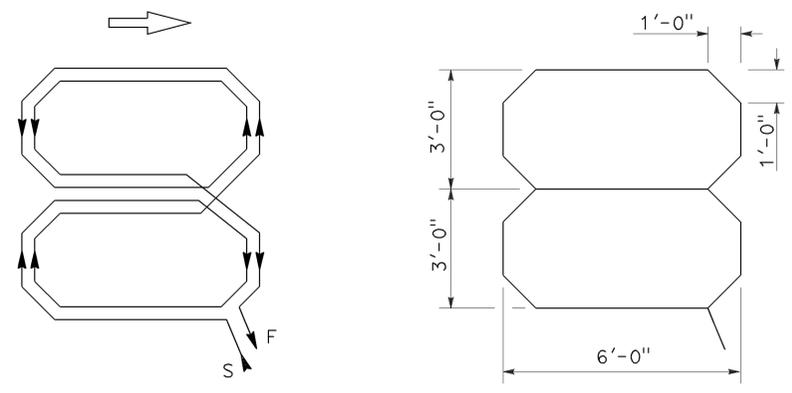
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



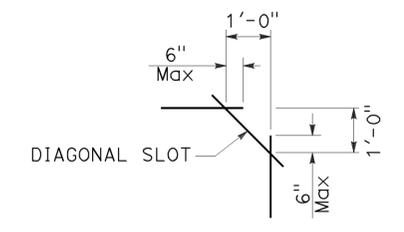
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



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.

REVISED STANDARD PLAN RSP ES-5B

2010 REVISED STANDARD PLAN RSP ES-5B

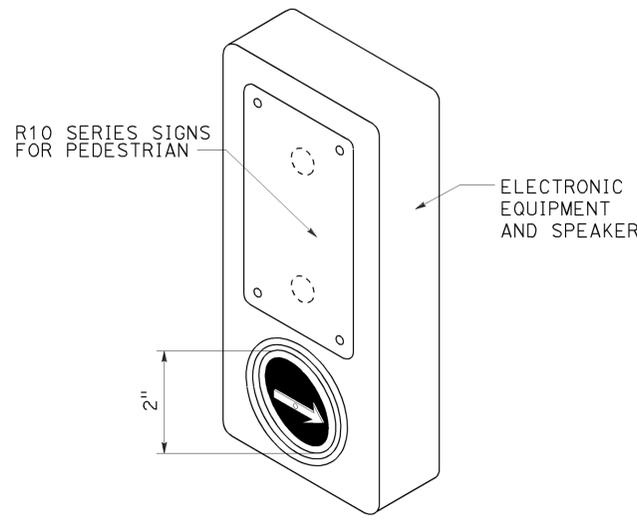
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	318	332

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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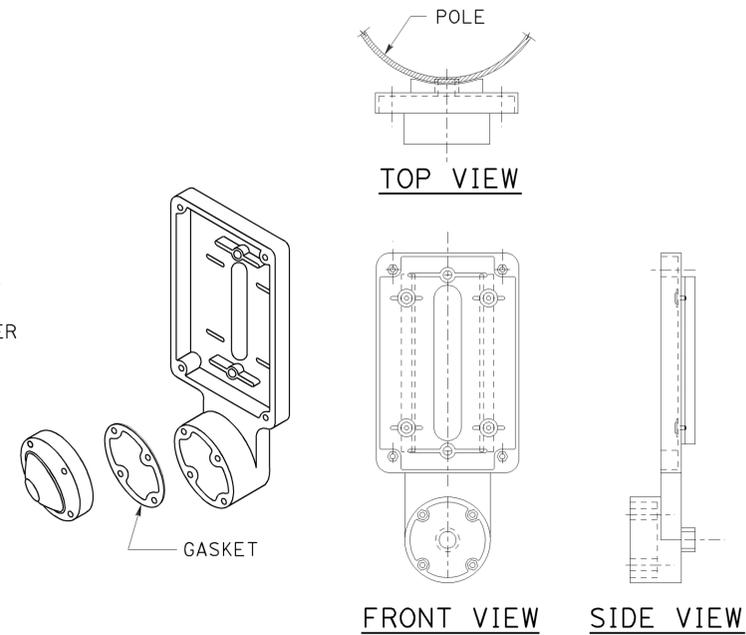
TO ACCOMPANY PLANS DATED 09-15-14

NOTES:

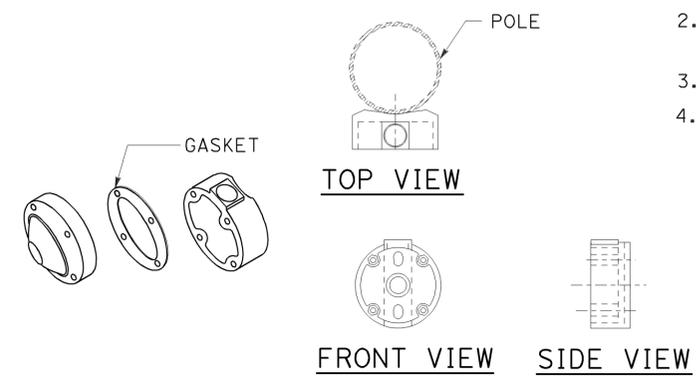
1. Back casting shape to fit curvature of pole.
2. Provide cover fitting for top of post, when PBA is mounted on push button assembly post.
3. Install push button on crosswalk side of standard.
4. Use R10 series regulatory signs and plaques for pedestrian and bicycle facilities.



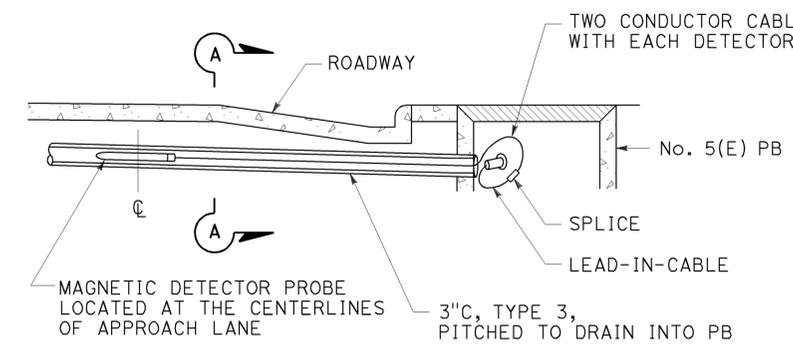
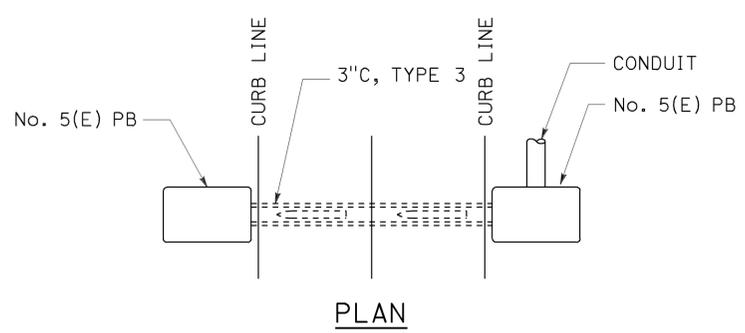
ACCESSIBLE PEDESTRIAN SIGNAL
DETAIL A
 (See note 1 to 4)



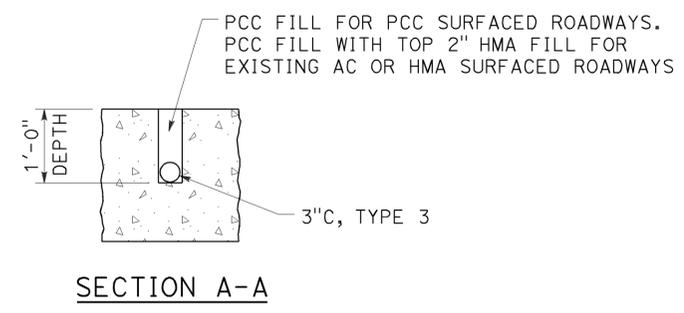
TYPE B PUSH BUTTON ASSEMBLY
DETAIL B
 (See note 1 to 4)



TYPE C PUSH BUTTON ASSEMBLY
DETAIL C
 (See note 1 to 4)



MAGNETIC VEHICLE DETECTOR
INSTALLATION DETAILS
DETAIL D



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(ACCESSIBLE PEDESTRIAN SIGNAL,
PUSH BUTTON ASSEMBLIES AND
MAGNETIC VEHICLE DETECTOR)
 NO SCALE

RSP ES-5C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5C DATED MAY 20, 2011 - PAGE 450 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5C

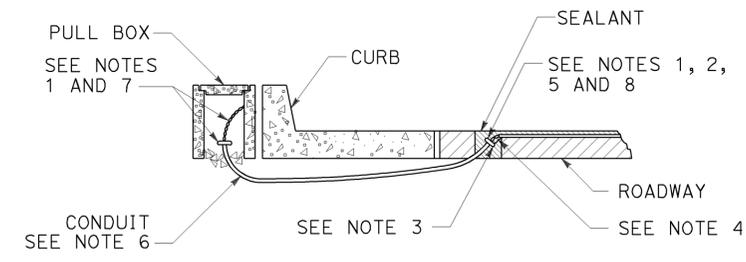
2010 REVISED STANDARD PLAN RSP ES-5C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	319	332

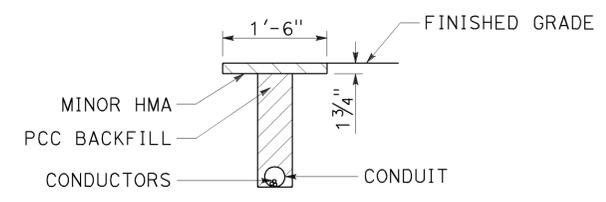
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 09-15-14

2010 REVISED STANDARD PLAN RSP ES-5D

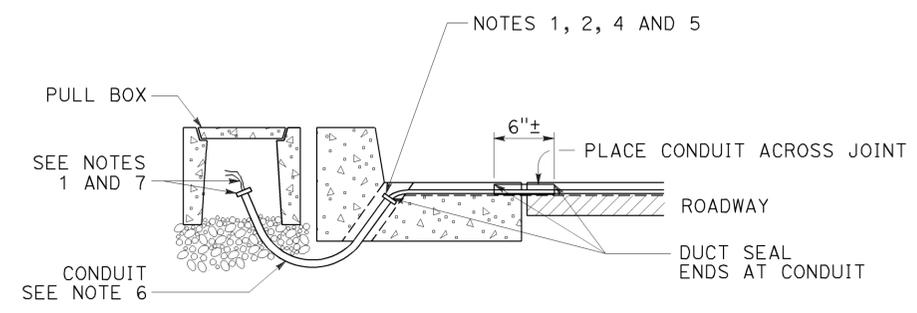


TYPE A
CURB TERMINATION DETAIL

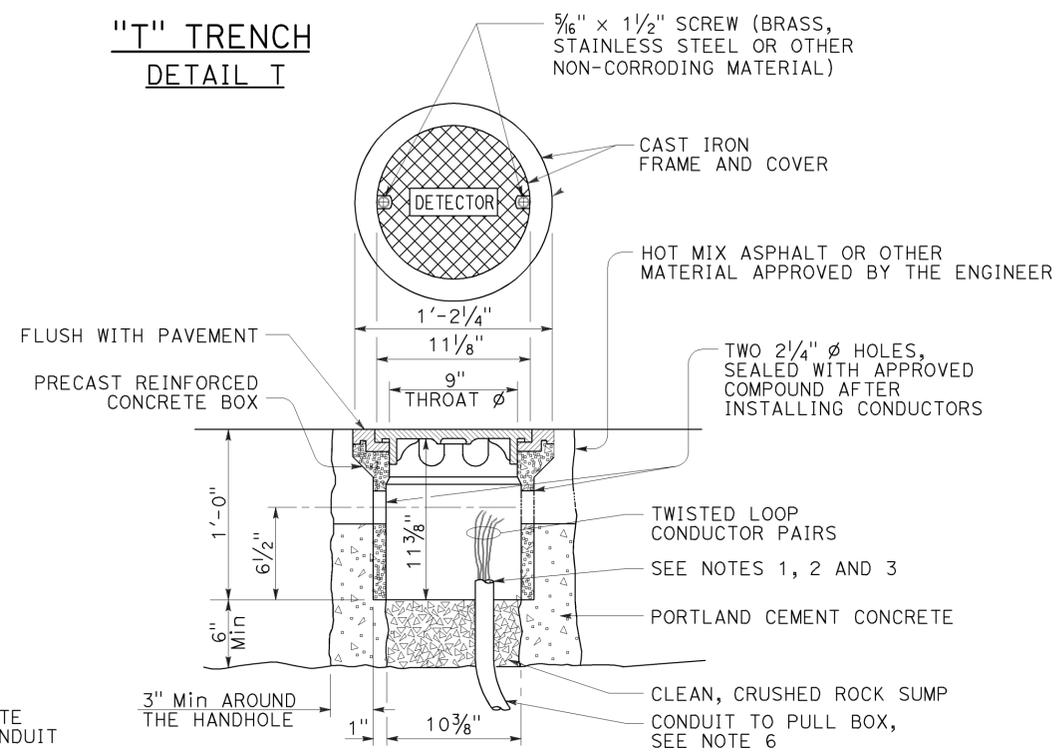


"T" TRENCH
DETAIL T

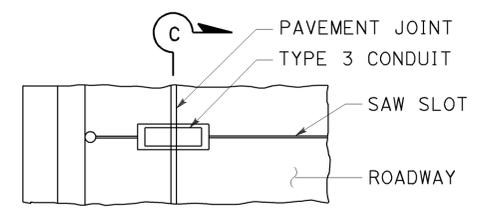
5/16" x 1 1/2" SCREW (BRASS, STAINLESS STEEL OR OTHER NON-CORRODING MATERIAL)



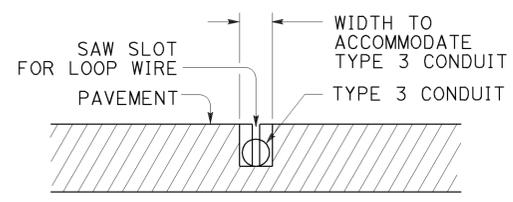
CROSS SECTION



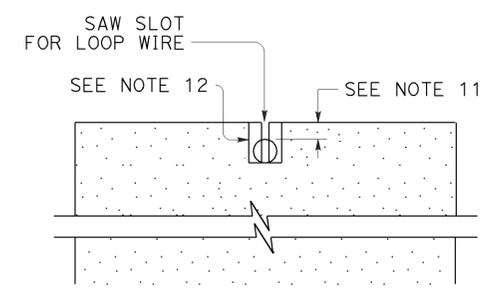
DETECTOR HANDHOLE DETAIL



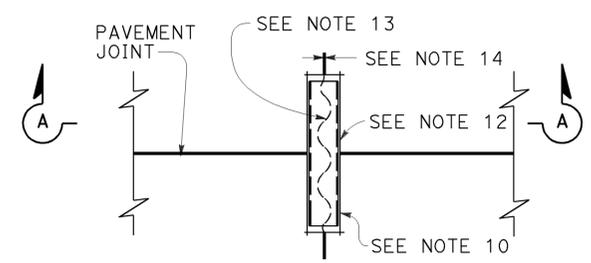
PLAN VIEW



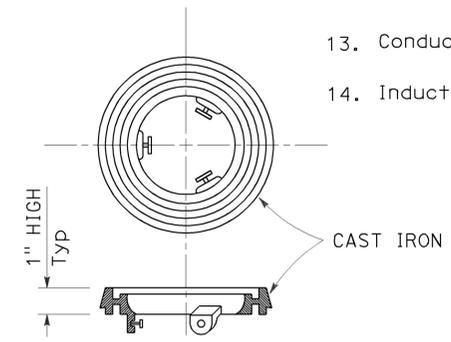
SECTION C-C



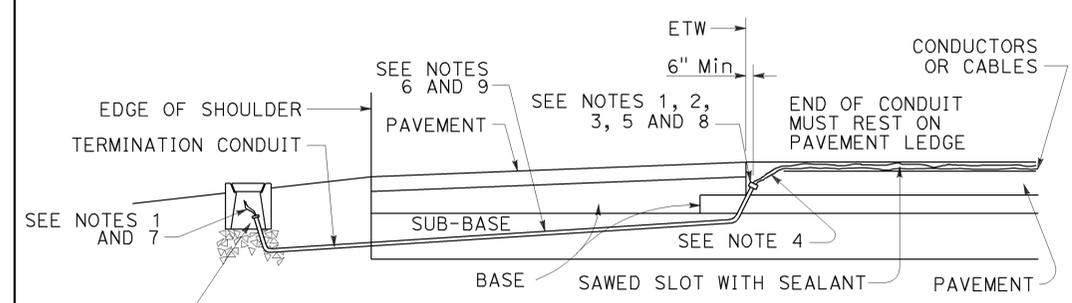
SECTION A-A



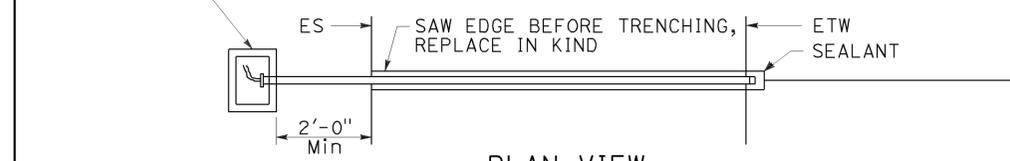
PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT



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

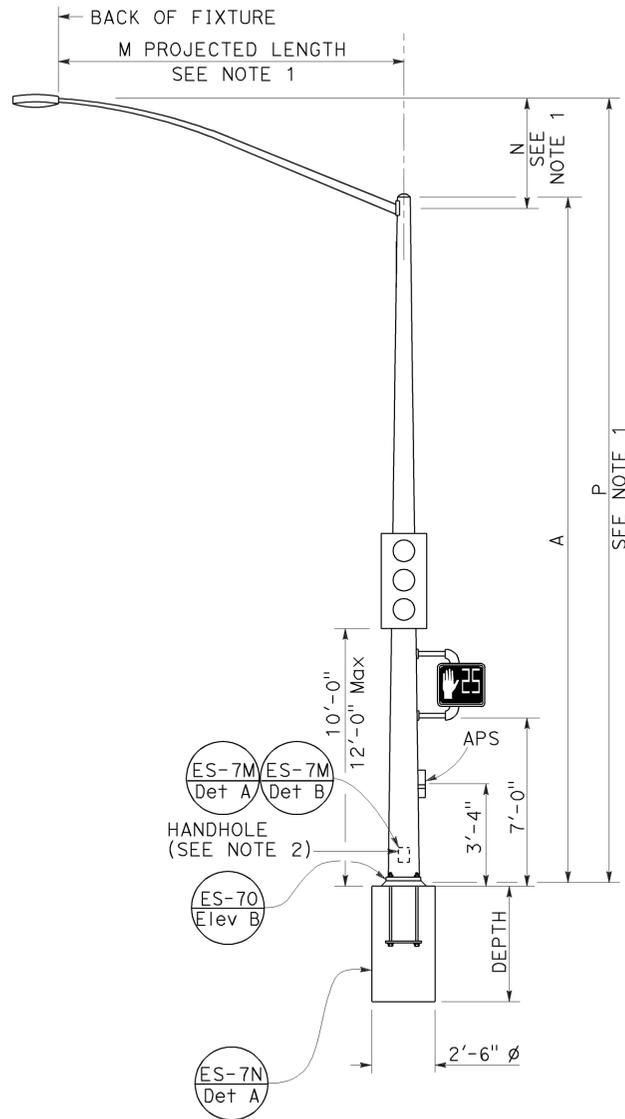
RSP ES-5D DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5D
DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5D

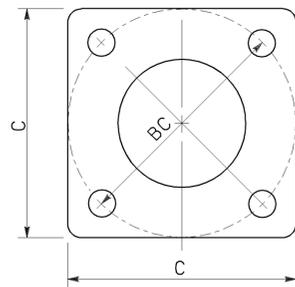
NOTES:

- For additional notes, details and data for Type 15TS and Type 21TS Standards, see Standard Plan ES-6A.
- Handhole shall be located on the downstream side of traffic.

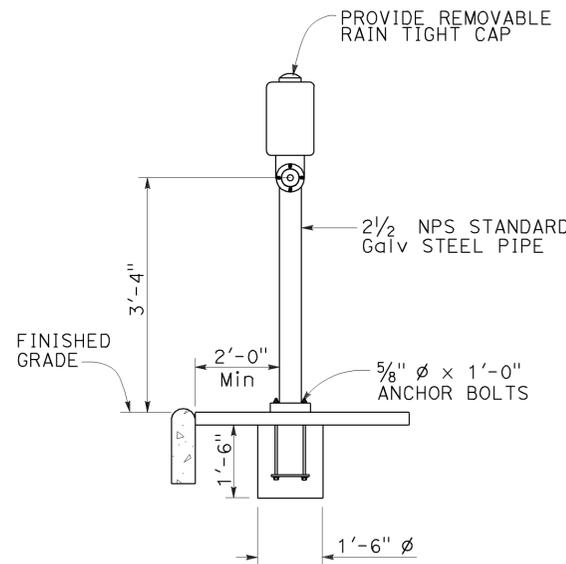
TO ACCOMPANY PLANS DATED 09-15-14



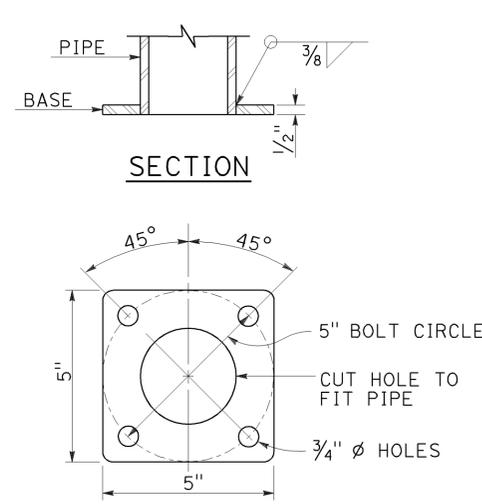
TYPE 15TS AND 21TS STANDARD
ELEVATION A
 (See Note 1)



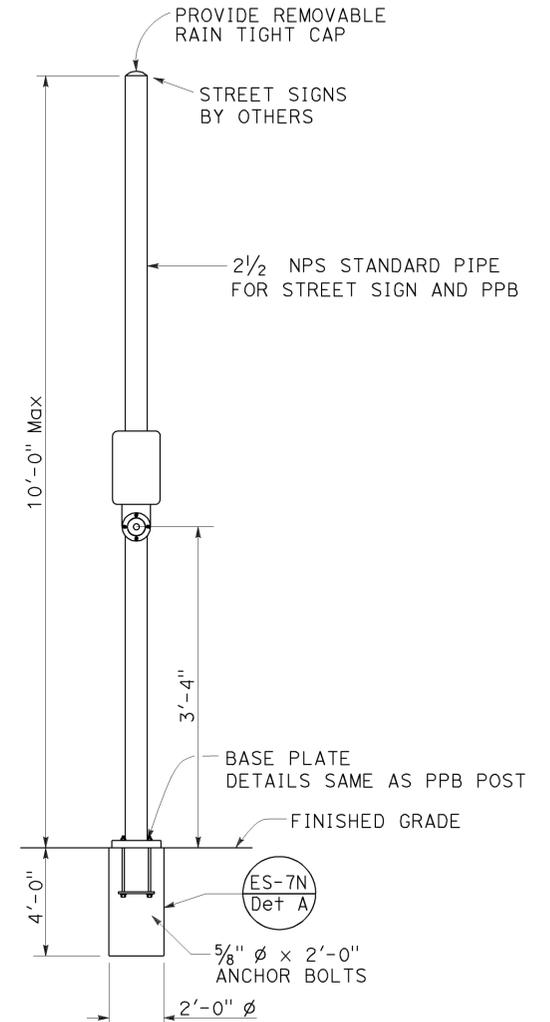
BASE PLATE
TYPE 15TS AND 21TS
DETAIL A



PUSH BUTTON ASSEMBLY POST
DETAIL B



BASE PLATE
PBA POST



COMBINED STREET SIGN
PUSH BUTTON ASSEMBLY POST
DETAIL C

POLE TYPE	POLE DATA			WALL THICKNESS	BASE PLATE DATA			CIDH DEPTH
	A HEIGHT	Min OD			C	BC = BOLT CIRCLE	ANCHOR BOLT SIZE	
		BASE	TOP					
15TS	30'-0"	8"	3 1/16"	0.1793"	1'-1 1/2"	1'-0"	1 1/2" ø x 42"	7'-6"
21TS	35'-0"	9 3/8"	3 3/16"		1'-3"	1'-2"		8'-6"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

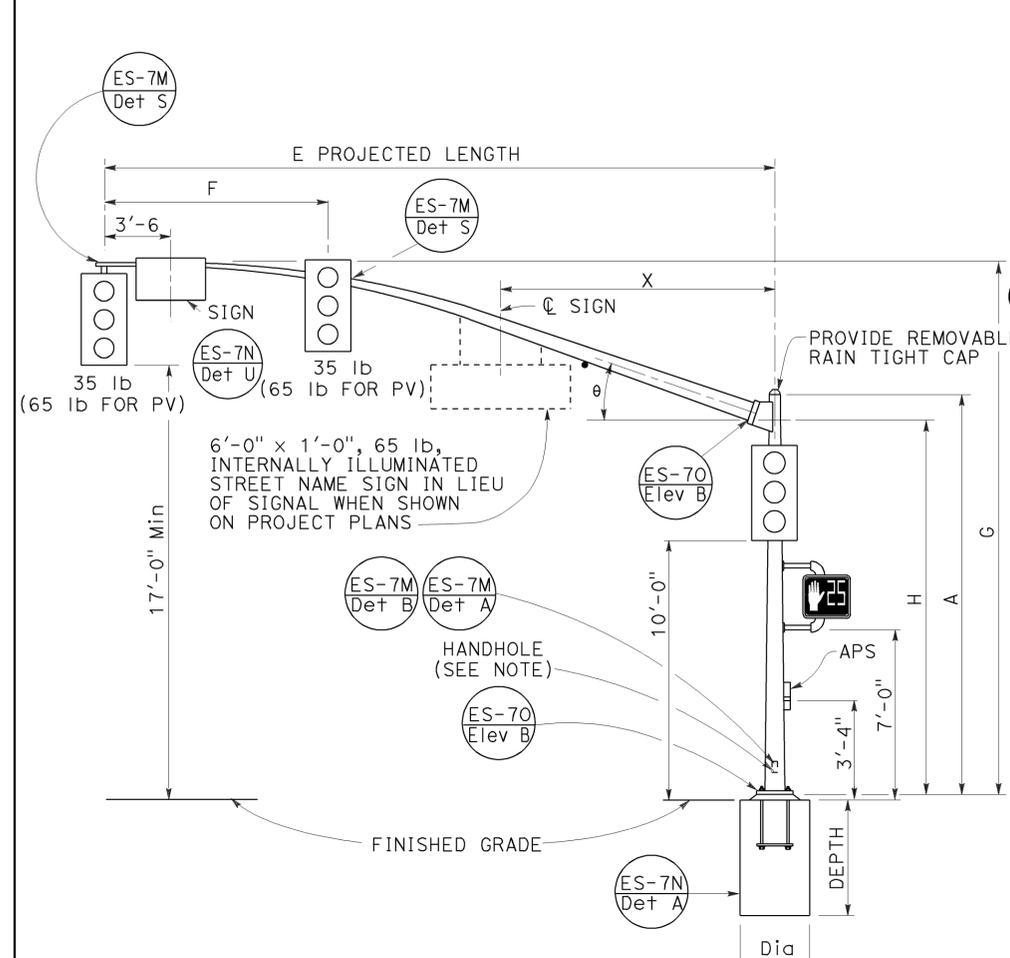
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD, TYPE TS,
AND PUSH BUTTON ASSEMBLY POST)

NO SCALE

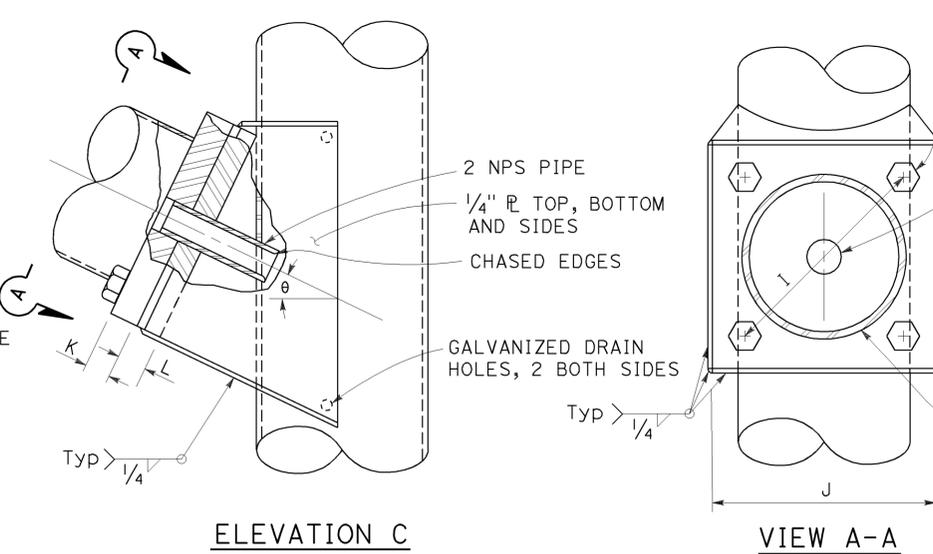
RSP ES-7A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-7A
 DATED MAY 20, 2011 - PAGE 462 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-7A

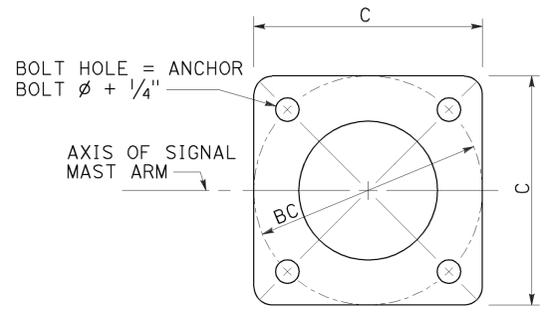
2010 REVISED STANDARD PLAN RSP ES-7A



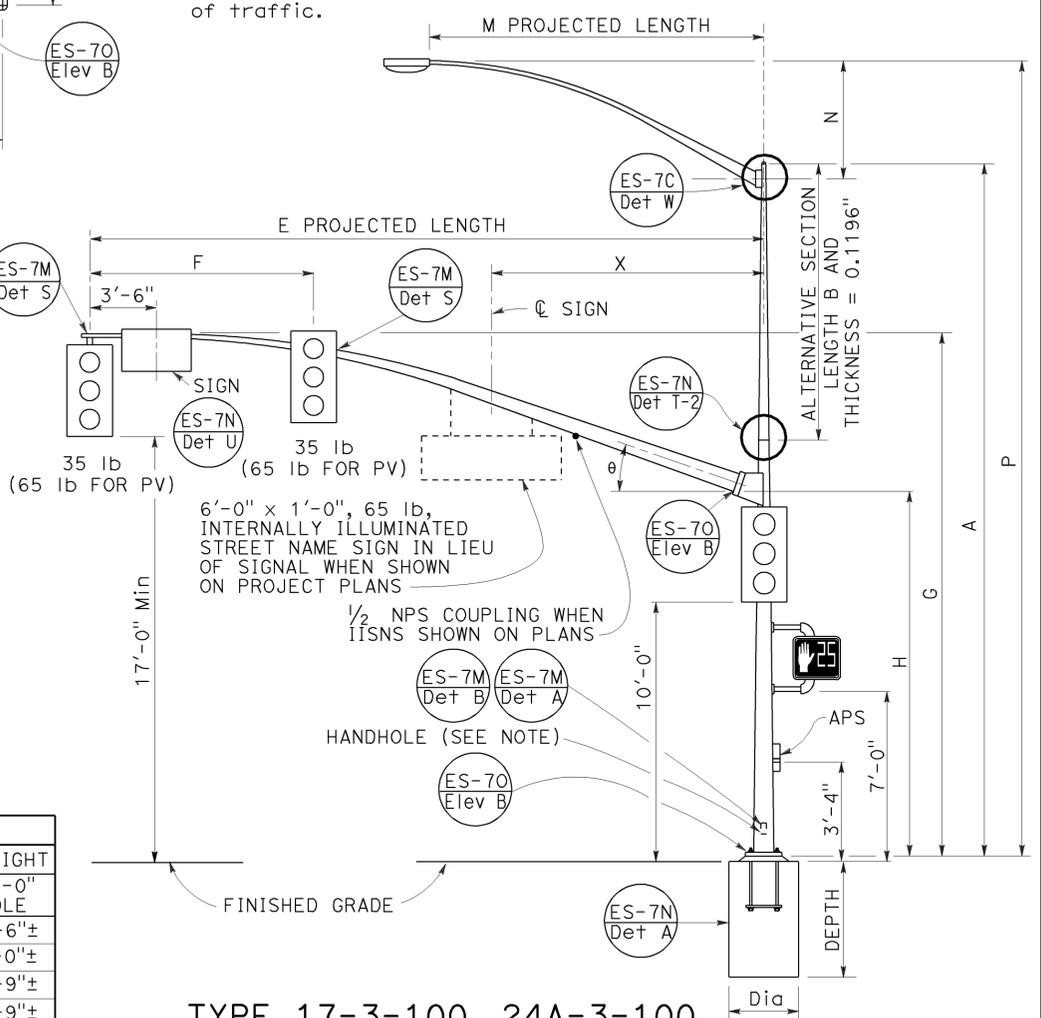
**TYPE 16-3-100, 18-3-100,
 23-3-100, 27-3-100**
ELEVATION A



SIGNAL MAST ARM CONNECTION
DETAIL A



BASE PLATE
DETAIL B



**TYPE 17-3-100, 24A-3-100,
 19-3-100, 26-3-100,
 19A-3-100, 26A-3-100, 24-3-100**
ELEVATION B

E PROJECTED LENGTH	F Min SPACING	G MOUNTING HEIGHT	H	Min OD AT POLE	THICKNESS	I BOLT CIRCLE	HS CAP SCREWS	J PLATE SIZE	K MAST ARM THICKNESS	L POLE THICKNESS	theta	X Max
15'-0"	8'-0"	21'-8"±	17'-6"	7 3/8"	0.1793"							
20'-0"		21'-8"±		7 3/8"		12"		1'-0"	1 1/4"	1 1/2"	23°	
25'-0"		22'-8"±		7 3/8"								
30'-0"	12'-0"	22'-8"±		8"				1 1/4"-7NC-3"				10'-6"
35'-0"	14'-0"	23'-0"±	16'-0"	8 3/4"	0.2391"						21°	
40'-0"				9 3/8"		13"		1'-1"	1 1/2"	1 3/4"	15°	13'-0"
45'-0"	15'-0"	23'-8"±		10 1/16"								

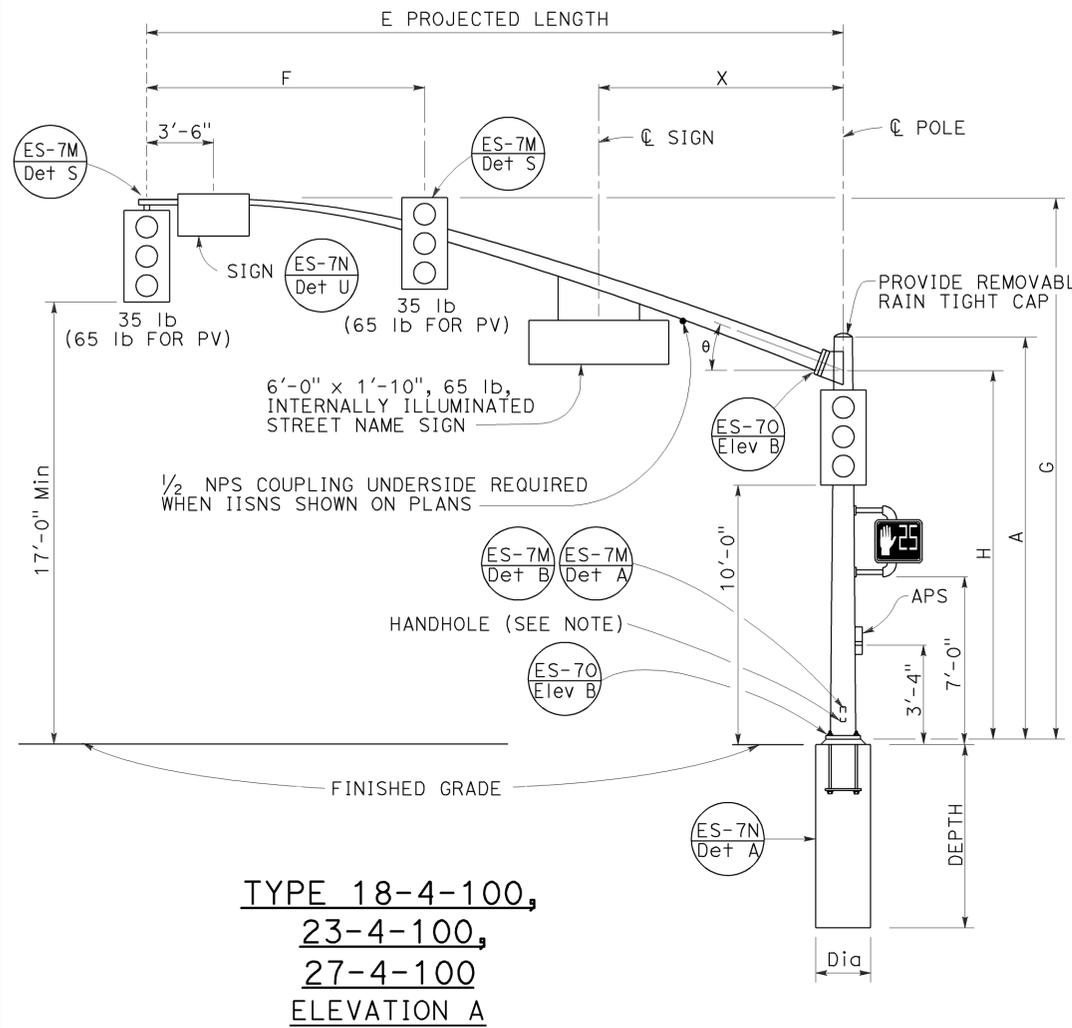
M PROJECTED LENGTH	N RISE	Min OD AT POLE	THICKNESS	P MOUNTING HEIGHT
6'-0"	2'-0"±	3 1/4"		30'-0" POLE
8'-0"	2'-6"±	3 1/2"		35'-0" POLE
10'-0"	3'-3"±	3 3/8"	0.1196"	31'-6"±
12'-0"	4'-3"±	4"		32'-0"±
15'-0"	4'-9"±	4 1/4"		36'-6"±
				37'-0"±
				32'-9"±
				37'-9"±
				33'-9"±
				38'-9"±
				34'-3"±
				39'-3"±

POLE TYPE	LOAD CASE	WIND VELOCITY (mph)	POLE DATA				BASE PLATE DATA				CIDH PILE FOUNDATION								
			A HEIGHT	Min OD		THICKNESS	ALTERNATIVE SECTION		C	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	LUMINAIRE MAST ARM	SIGNAL MAST ARM	DIAMETER	DEPTH	REINFORCED		
				BASE	TOP		B LENGTH	BOTTOM										TOP	
16-3-100			18'-6"		8 1/16"	0.1793"	NONE												
17-3-100			30'-0"	10 3/4"	6 7/16"		10'-0"	7 7/8"	6 7/16"	1'-5 1/2"			1 1/2" phi x 42"	NONE	15'-0", 20'-0"		8'-6"		
18-3-100			17'-0"		8 9/16"		NONE							NONE	25'-0", 30'-0"		9'-6"		
19-3-100			30'-0"		7 1/16"		10'-0"	9 1/8"	7 1/16"					6'-15' 12'-0"					
19A-3-100			35'-0"		6 15/16"		15'-0"		6 15/16"					6'-15' 15'-0"					
23-3-100	3	100	17'-0"	1'-0"	9 9/16"	0.2391"	NONE			1'-7"	1'-5 1/2"	3"	2" phi x 42"	NONE	35'-0"		3'-0"	11'-0"	YES
24-3-100			30'-0"		7 1/16"		10'-0"	9 1/8"	7 1/16"					6'-15' 12'-0"					
24A-3-100			35'-0"		6 15/16"		15'-0"	9 1/8"	6 15/16"					6'-15' 15'-0"					
26-3-100			30'-0"		7 13/16"		10'-0"	9 1/4"	7 13/16"					6'-15' 12'-0"					
26A-3-100			35'-0"	1'-2"	7 1/16"	0.3125"	15'-0"		7 1/16"	1'-11"	1'-9"		2 1/2" phi x 42"	6'-15' 12'-0"	40'-0", 45'-0"		3'-6"	12'-0"	
27-3-100			17'-0"		9 1/16"		NONE							NONE					

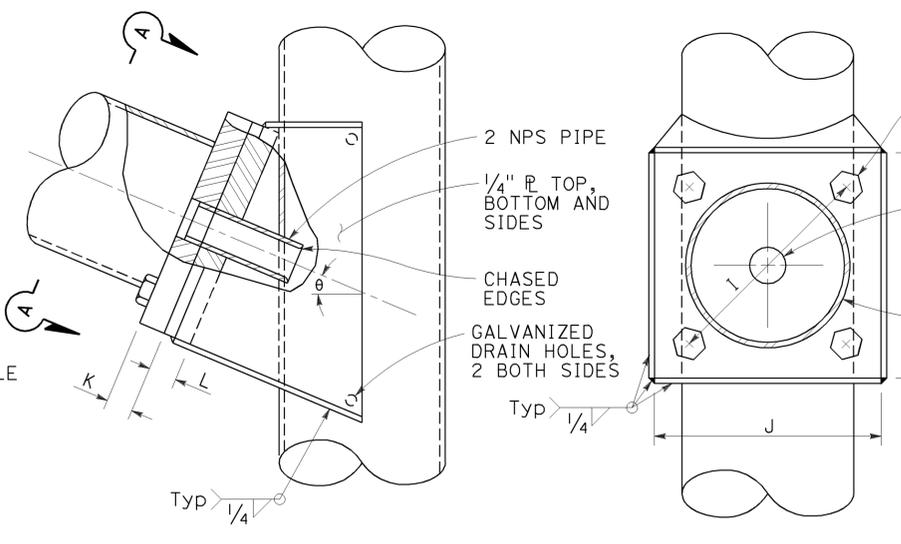
[] INDICATES MAST ARM LENGTH TO BE USED UNLESS OTHERWISE NOTED ON PLANS.

2010 REVISED STANDARD PLAN RSP ES-7E

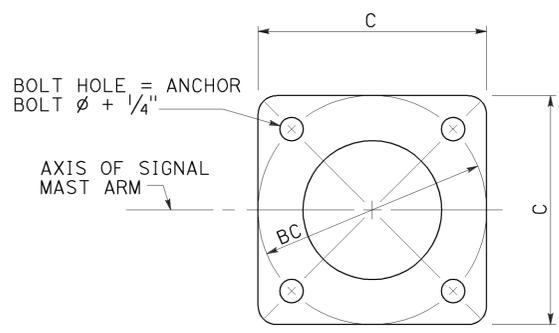
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
CASE 3 SIGNAL MAST ARM LOADING,
WIND VELOCITY=100 MPH AND SIGNAL
MAST ARM LENGTHS 15' TO 45')
 NO SCALE
 RSP 7E DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN 7E
 DATED MAY 20, 2011 - PAGE 466 OF THE STANDARD PLANS BOOK DATED 2010.



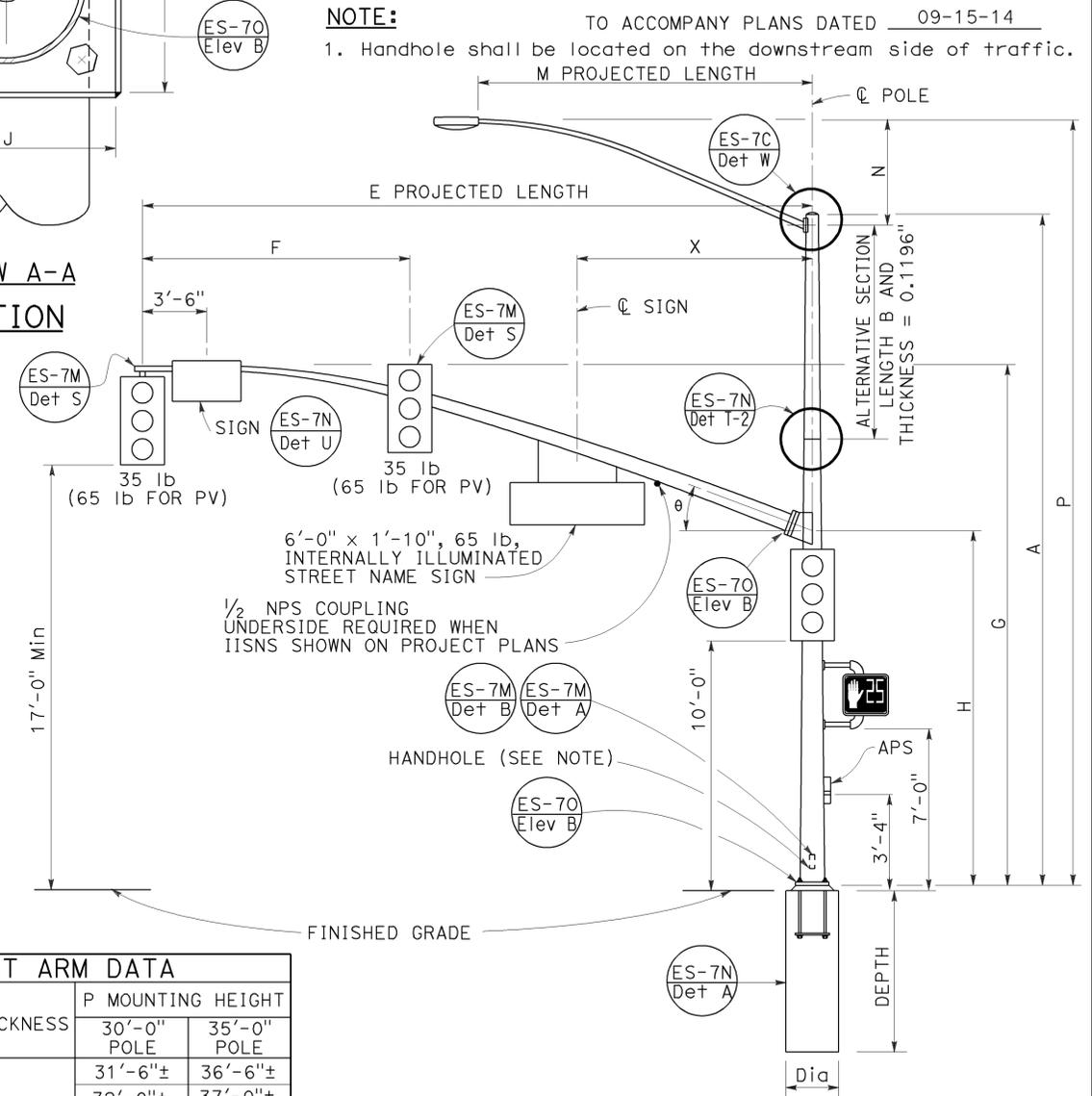
**TYPE 18-4-100,
 23-4-100,
 27-4-100
 ELEVATION A**



**ELEVATION C
 SIGNAL MAST ARM CONNECTION
 DETAIL A**



**BASE PLATE
 DETAIL B**



**TYPE 19-4-100, 19A-4-100,
 24-4-100, 24A-4-100,
 26-4-100, 26A-4-100
 ELEVATION B**

E PROJECTED LENGTH	F Min SPACING	G MOUNTING HEIGHT	H	Min OD AT POLE	THICKNESS	I BOLT CIRCLE	HS CAP SCREWS	J PLATE SIZE	K MAST ARM THICKNESS	L POLE R THICKNESS	θ	X Max
25'-0"	10'-0"	22'-8"±	16'-0"	7 3/8"	0.2391"	12"	1 1/4"-7NC-3"	1'-0"	1 1/4"	1 1/2"	23°	10'-6"
30'-0"	12'-0"	8"										
35'-0"	14'-0"	8 1/8"										
40'-0"	15'-0"	9 3/8"										
45'-0"	17'-0"	10 1/4"										

M PROJECTED LENGTH	N RISE	Min OD AT POLE	THICKNESS	P MOUNTING HEIGHT	
				30'-0" POLE	35'-0" POLE
6'-0"	2'-0"±	3 1/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3 1/2"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3 7/8"		32'-9"±	37'-9"±
12'-0"	4'-3"±			33'-9"±	38'-9"±
15'-0"	4'-9"±	4 1/4"		34'-3"±	39'-3"±

POLE TYPE	LOAD CASE	WIND VELOCITY (mph)	POLE DATA			BASE PLATE DATA			CIDH PILE FOUNDATION										
			A HEIGHT	Min OD BASE	Min OD TOP	THICKNESS	ALTERNATIVE SECTION B LENGTH	ALTERNATIVE SECTION BOTTOM	ALTERNATIVE SECTION TOP	C	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	LUMINAIRE MAST ARM	SIGNAL MAST ARM	Dia	DEPTH	REINFORCED	
18-4-100	4	100	17'-0"	12 1/8"	9 1/16"	0.3125"	NONE	9 1/8"	7 1/16"	1'-7"	1'-5 1/2"	3"	2" ø x 42"	NONE	35'-0"	3'-0"	11'-0"	YES	
19-4-100			30'-0"		7 1/16"		10'-0"		7 1/16"					6'-15' 12'-0"					25'-0", 30'-0"
19A-4-100			35'-0"		6 15/16"		15'-0"		6 5/16"					6'-15' 15'-0"					
23-4-100			17'-0"		9 1/16"		NONE		NONE					NONE					
24-4-100			30'-0"	7 1/16"	10'-0"		7 1/16"	6'-15' 12'-0"	35'-0"										
24A-4-100			35'-0"	6 15/16"	15'-0"		6 5/16"	6'-15' 15'-0"											
26-4-100			30'-0"	8 3/16"	10'-0"		8 3/16"	6'-15' 12'-0"	40'-0", 45'-0"										
26A-4-100			35'-0"	7 7/16"	15'-0"		7 7/16"	6'-15' 15'-0"											
27-4-100	17'-0"	10 1/16"	NONE	NONE	NONE														

[] INDICATES MAST ARM LENGTH TO BE USED UNLESS OTHERWISE NOTED ON PLANS.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SIGNAL AND LIGHTING STANDARD,
 CASE 4 SIGNAL MAST ARM LOADING,
 WIND VELOCITY=100 MPH AND SIGNAL
 MAST ARM LENGTHS 25' TO 45')**
 NO SCALE
 RSP ES-7F DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-7F
 DATED MAY 20, 2011 - PAGE 467 OF THE STANDARD PLANS BOOK DATED 2010.
REVISED STANDARD PLAN RSP ES-7F

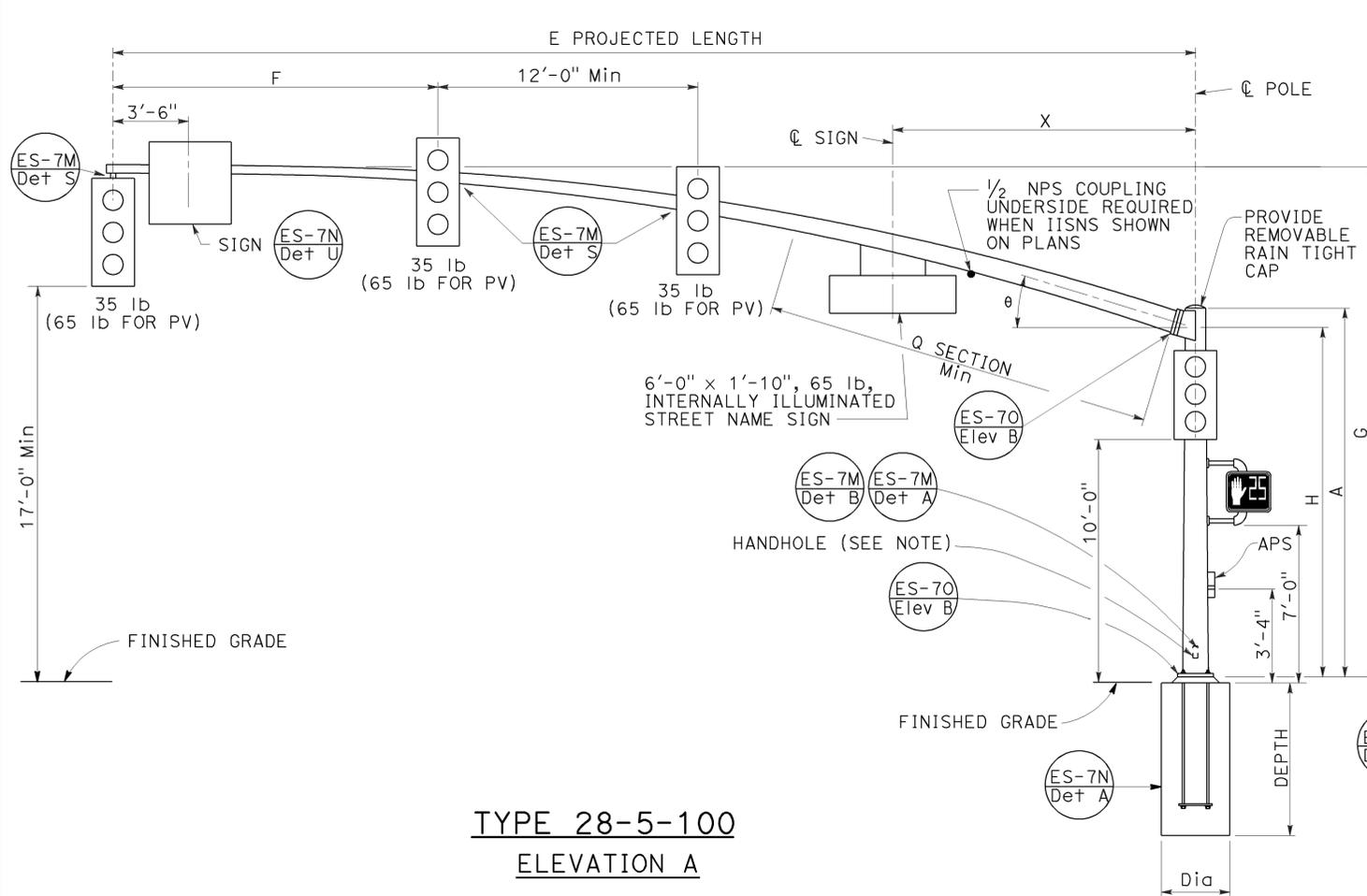
2010 REVISED STANDARD PLAN RSP ES-7F

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	323	332

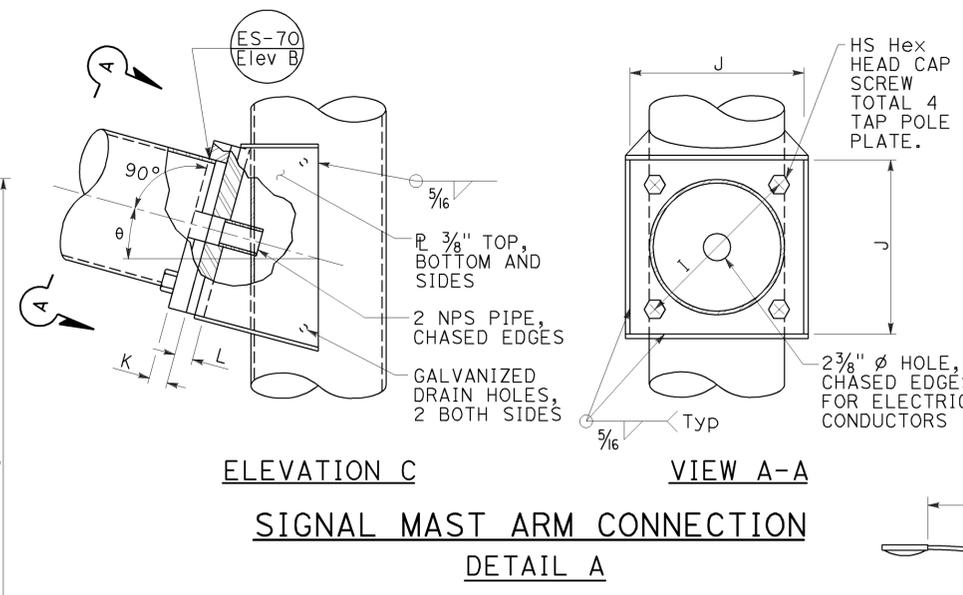
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 No. C57793
 Exp. 3-31-14
 STATE OF CALIFORNIA

July 19, 2013
 PLANS APPROVAL DATE

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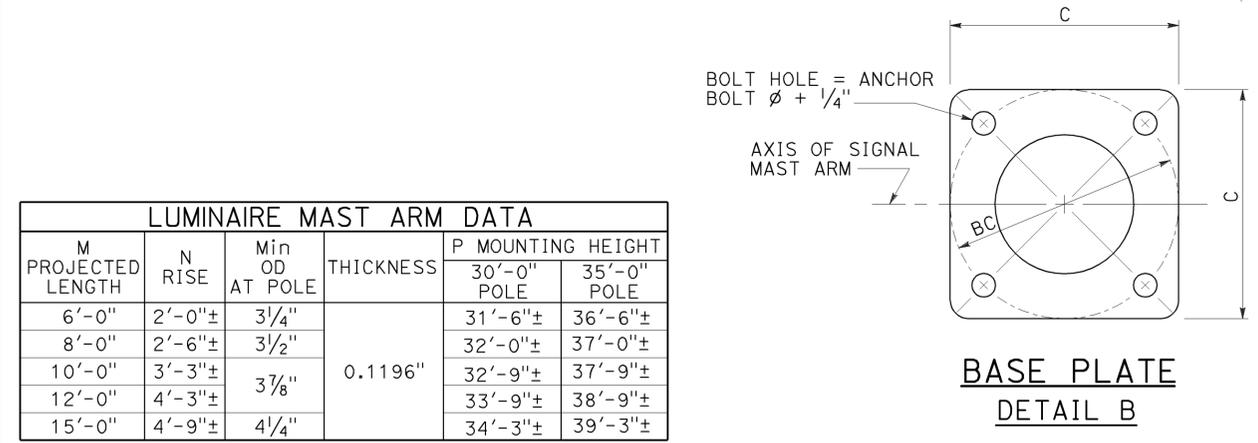


TYPE 28-5-100
ELEVATION A



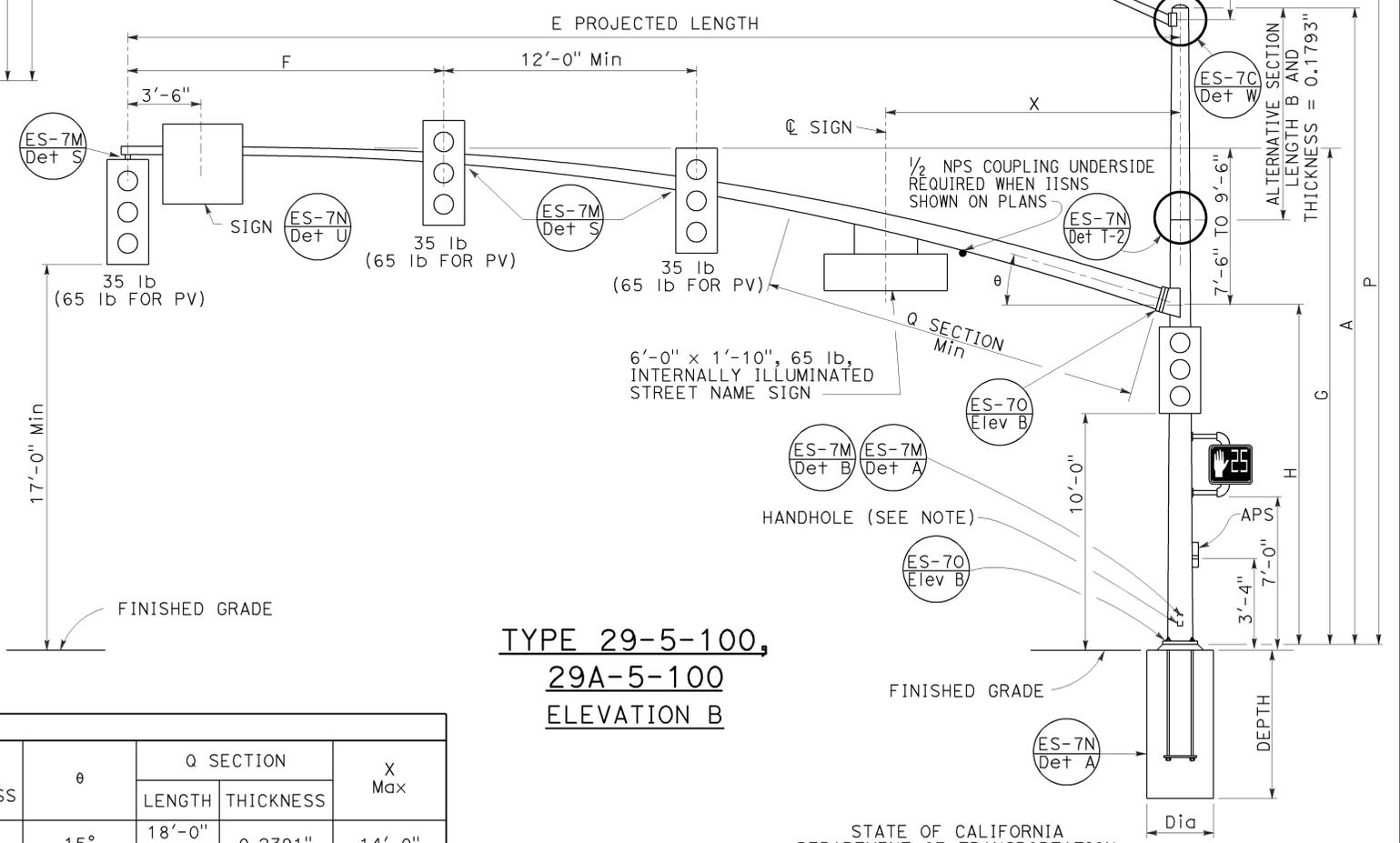
ELEVATION C
VIEW A-A
SIGNAL MAST ARM CONNECTION
DETAIL A

TO ACCOMPANY PLANS DATED 09-15-14
NOTE:
 Handhole shall be located on the downstream side of traffic.



BASE PLATE
DETAIL B

M PROJECTED LENGTH	N RISE	Min OD AT POLE	THICKNESS	P MOUNTING HEIGHT	
				30'-0" POLE	35'-0" POLE
6'-0"	2'-0"±	3 3/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3 1/2"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3 7/8"		32'-9"±	37'-9"±
12'-0"	4'-3"±	3 7/8"		33'-9"±	38'-9"±
15'-0"	4'-9"±	4 1/4"		34'-3"±	39'-3"±



TYPE 29-5-100,
29A-5-100
ELEVATION B

E PROJECTED LENGTH	F Min SPACING	G MOUNTING HEIGHT	H	Min OD AT POLE	THICKNESS	I BOLT CIRCLE	HS CAP SCREWS	J PLATE SIZE	K MAST ARM P THICKNESS	L POLE P THICKNESS	θ	Q SECTION		X Max
												LENGTH	THICKNESS	
50'-0" 55'-0"	15'-0"	23'-7"± TO 25'-7"±	16'-0"	1 11/16" 1'-1/4"	0.1793"	16"	1 1/2"-6NC-3 1/4"	1'-4"	1 3/4"	1 3/4"	15°	18'-0" 23'-0"	0.2391"	14'-0"

POLE TYPE	LOAD CASE	WIND VELOCITY (mph)	POLE DATA				BASE PLATE DATA				LUMINAIRE MAST ARM	SIGNAL MAST ARM	CIDH PILE FOUNDATION						
			A HEIGHT	Min OD BASE	Min OD TOP	THICKNESS	B LENGTH	ALTERNATIVE SECTION BOTTOM	ALTERNATIVE SECTION TOP	C			BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	Diø	DEPTH	REINFORCED	
28-5-100	5	100	17'-0"	11 1/16"	0.3125"	NONE	11 1/8"	9 11/16"	23"	21"	3"	2 1/2" ø x 42"	NONE	50'-0" 55'-0"	3'-6"	12'-0"	YES		
29-5-100			30'-0"	14"		9 11/16"							10'-0"					9 11/16"	6'-15" [15'-0"]
29A-5-100			35'-0"	14"		8 5/16"							15'-0"					8 5/16"	

INDICATES MAST ARM LENGTH TO BE USED UNLESS OTHERWISE NOTED ON PLANS.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
CASE 5 SIGNAL MAST ARM LOADING,
WIND VELOCITY=100 MPH AND SIGNAL
MAST ARM LENGTHS 50' TO 55')

NO SCALE
 RSP ES-7G DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-7G DATED MAY 20, 2011 - PAGE 468 OF THE STANDARD PLANS BOOK DATED 2010.
REVISED STANDARD PLAN RSP ES-7G

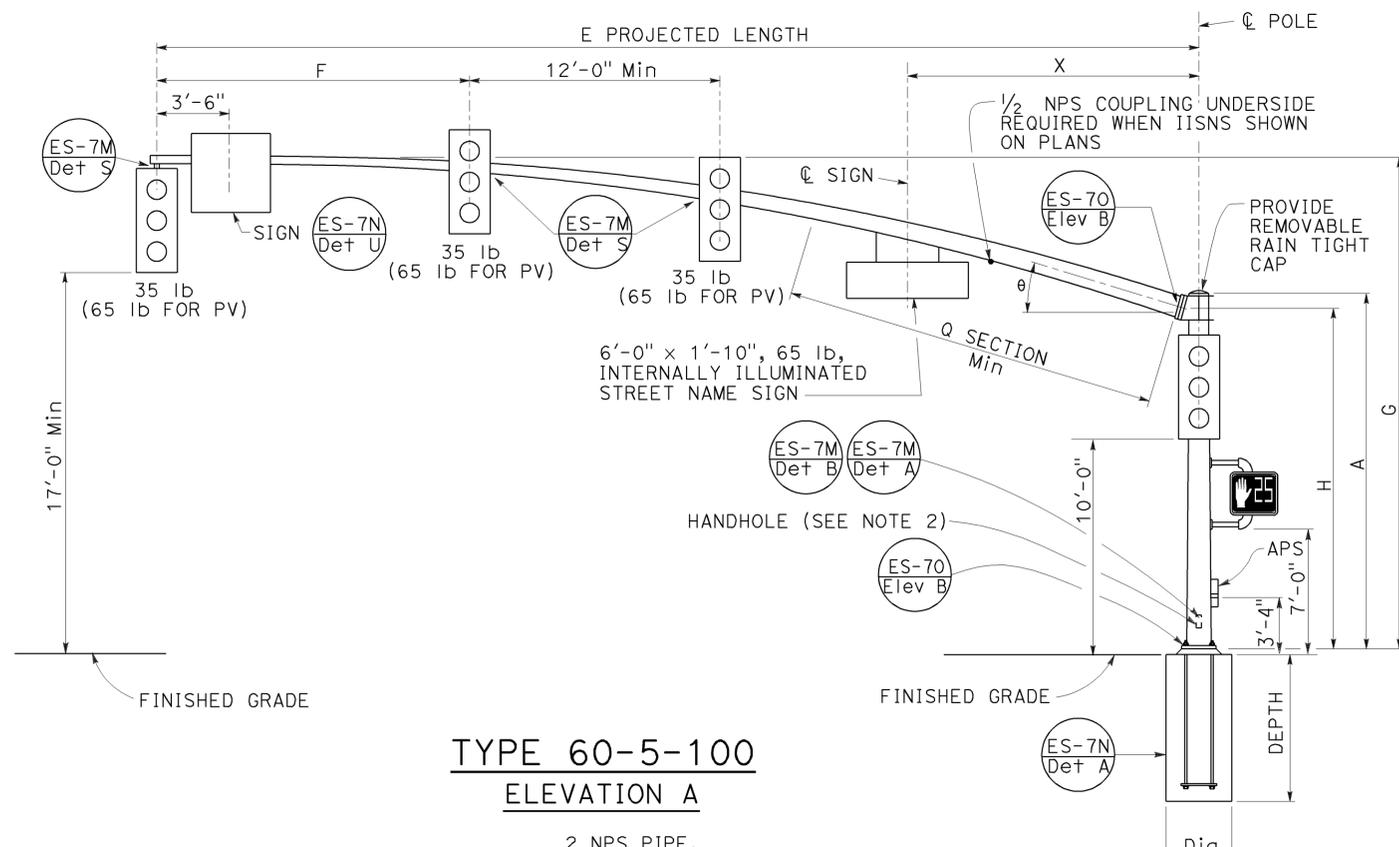
2010 REVISED STANDARD PLAN RSP ES-7G

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	324	332

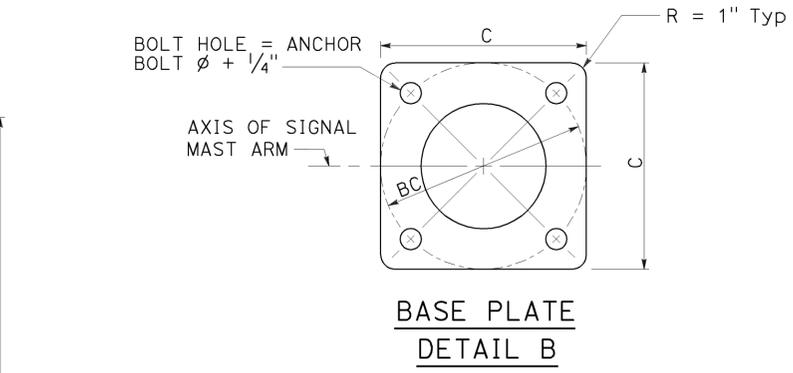
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 No. C57793
 Exp. 3-31-14
 CIVIL
 STATE OF CALIFORNIA

July 19, 2013
 PLANS APPROVAL DATE

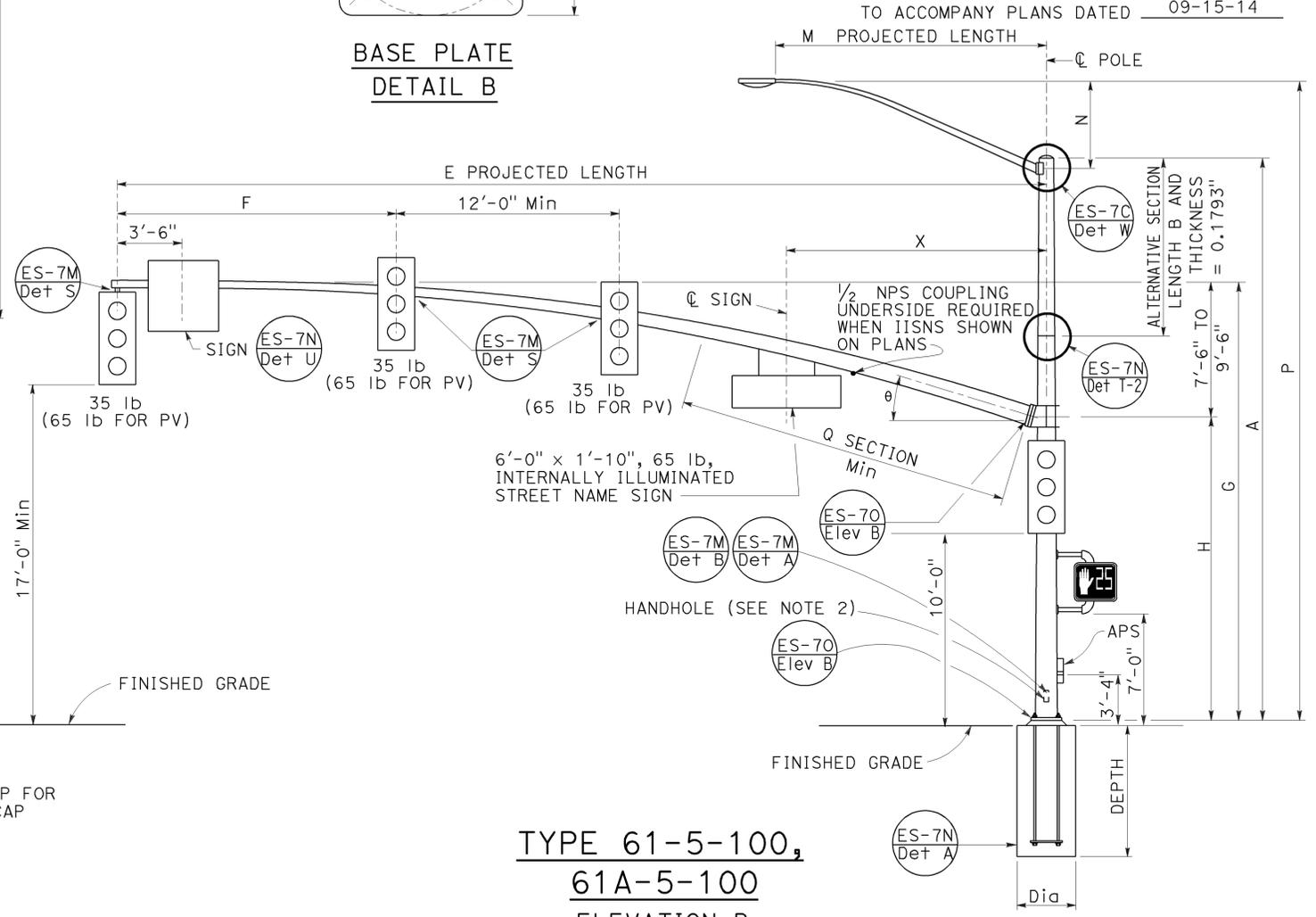
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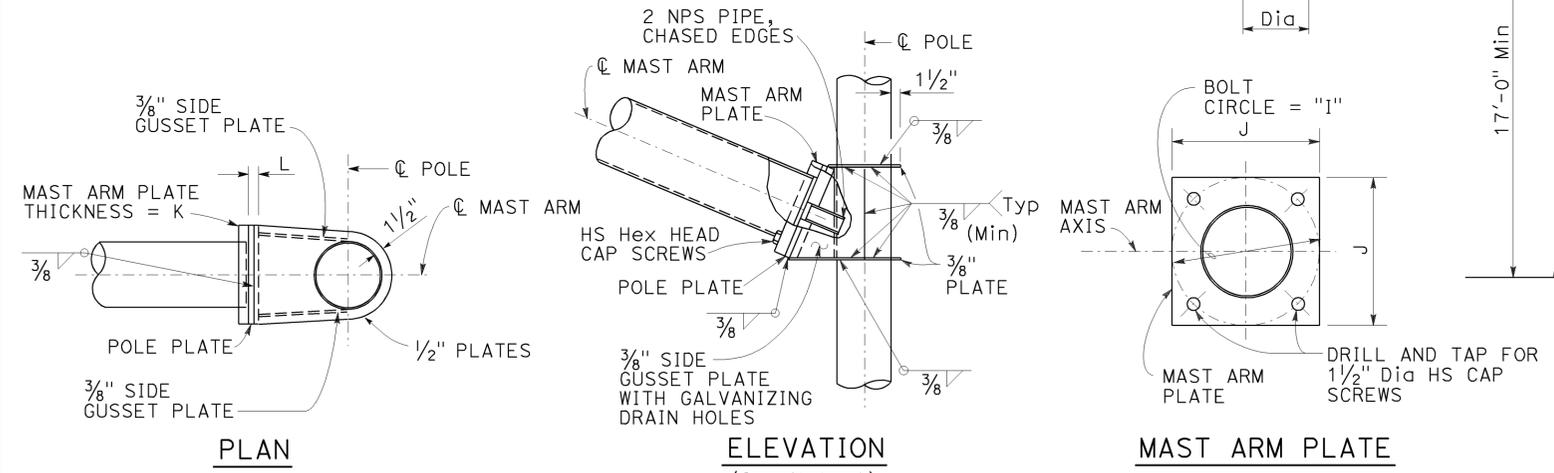
TYPE 60-5-100
ELEVATION A



BASE PLATE
DETAIL B



TYPE 61-5-100,
61A-5-100
ELEVATION B



SIGNAL MAST ARM CONNECTION
DETAIL A

E PROJECTED LENGTH	F Min SPACING	G MOUNTING HEIGHT	H	Min OD AT POLE	THICKNESS	I BOLT CIRCLE	HS CAP SCREWS	J PLATE SIZE	K MAST ARM PLATE THICKNESS	L POLE PLATE THICKNESS	θ	Q SECTION		X Max
												LENGTH	THICKNESS	
60'-0"	15'-0"	23'-7" TO 25'-7"	16'-0"	1'-1 1/2"	0.1793"	20"	1 1/2"-6NC-4"	1'-8"	2"	2"	15°	24'-0"	0.2391"	14'-0"
65'-0"					0.2391"							29'-0"	0.3125"	

M PROJECTED LENGTH	N RISE	Min OD AT POLE	THICKNESS	P MOUNTING HEIGHT POLE	35'-0" POLE
6'-0"	2'-0"±	3 1/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3 1/2"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3 3/8"		32'-9"±	37'-9"±
12'-0"	4'-3"±	4 1/4"	0.1196"	33'-9"±	38'-9"±
15'-0"	4'-9"±			34'-3"±	39'-3"±

- NOTES:**
- The radial separation between the face of the pole and the adjacent insides of the top and bottom gusset plates shall not exceed 3/16". Fillet weld size to be increased by amount of gap.
 - Handhole shall be located on the downstream side of traffic.

POLE TYPE	LOAD CASE	WIND VELOCITY (mph)	POLE DATA			BASE PLATE DATA				LUMINAIRE MAST ARM	SIGNAL MAST ARM	CIDH PILE FOUNDATION			
			A HEIGHT	Min OD	THICKNESS	C	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE			DIAMETER	DEPTH	REINFORCED	
60-5-100	5	100	17'-0"	16"	0.3125"	2'-0"	1'-11"	3"	2 1/2" ø x 60"	NONE	60'-0", 65'-0"	3'-6"	13'-0"	YES	
61-5-100			30'-0"												1 1 1/16"
61A-5-100			35'-0"												1 0 1/16"

INDICATES MAST ARM LENGTH TO BE USED UNLESS OTHERWISE NOTED ON PLANS.

REVISED STANDARD PLAN RSP ES-7H

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
CASE 5 SIGNAL MAST ARM LOADING,
WIND VELOCITY=100 MPH AND SIGNAL
MAST ARM LENGTHS 60' TO 65')
 NO SCALE
 RSP ES-7H DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-7H
 DATED MAY 20, 2011 - PAGE 469 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-7H

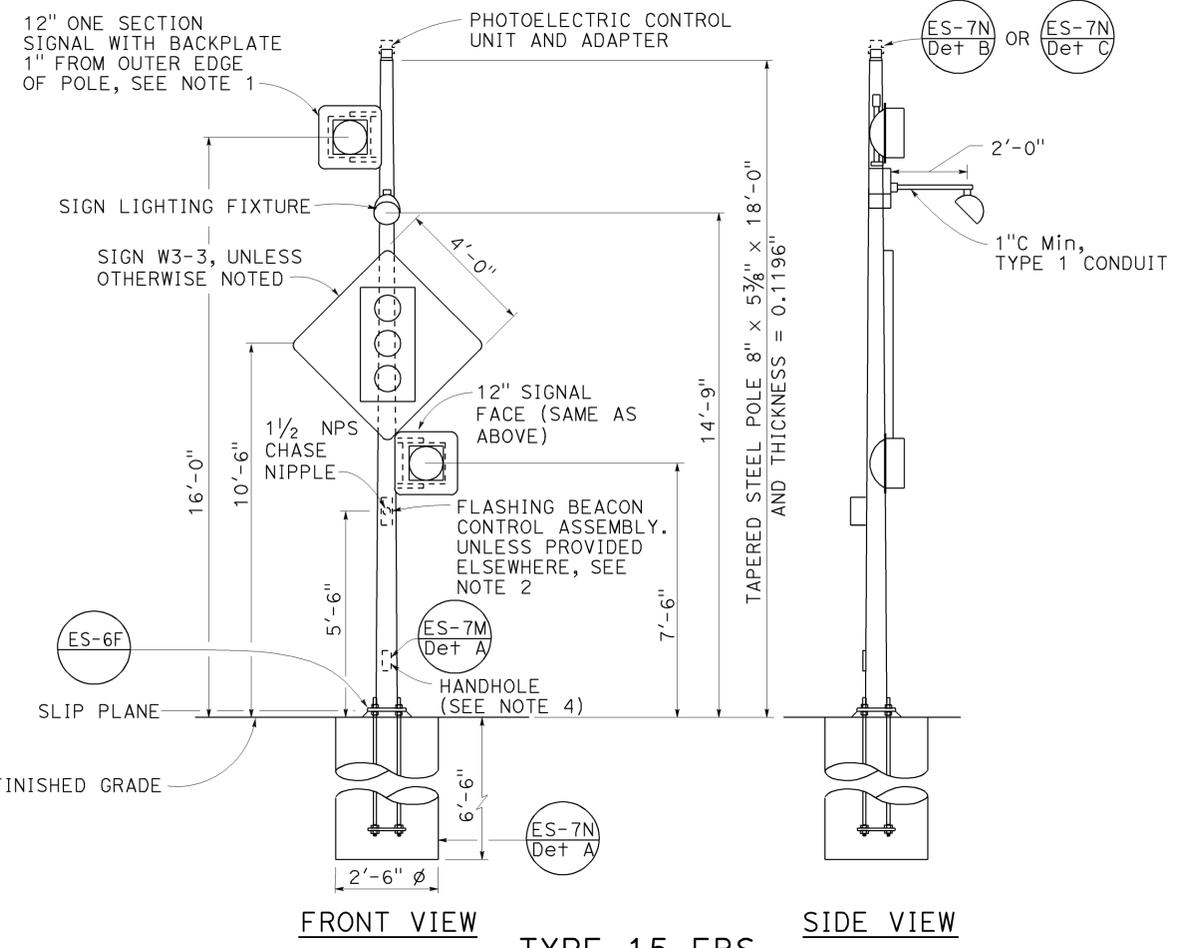
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	325	332

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
 Stanley P. Johnson
 REGISTERED PROFESSIONAL ENGINEER
 No. C57793
 Exp. 3-31-14
 CIVIL
 STATE OF CALIFORNIA

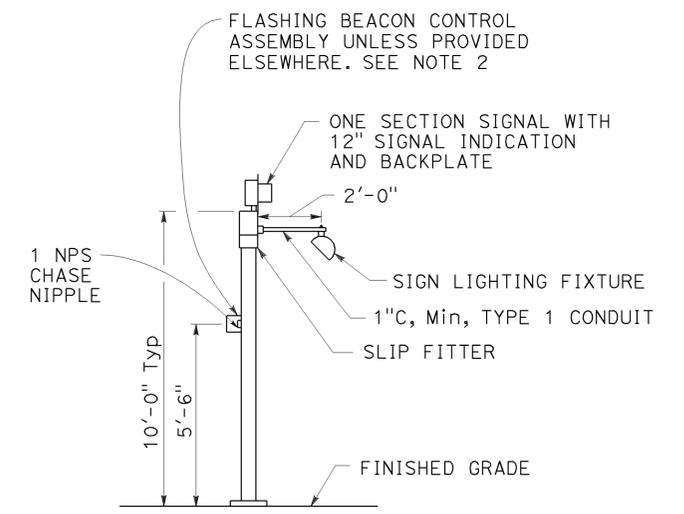
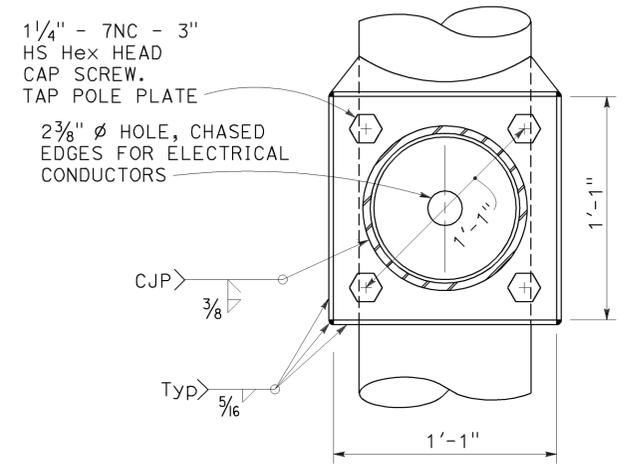
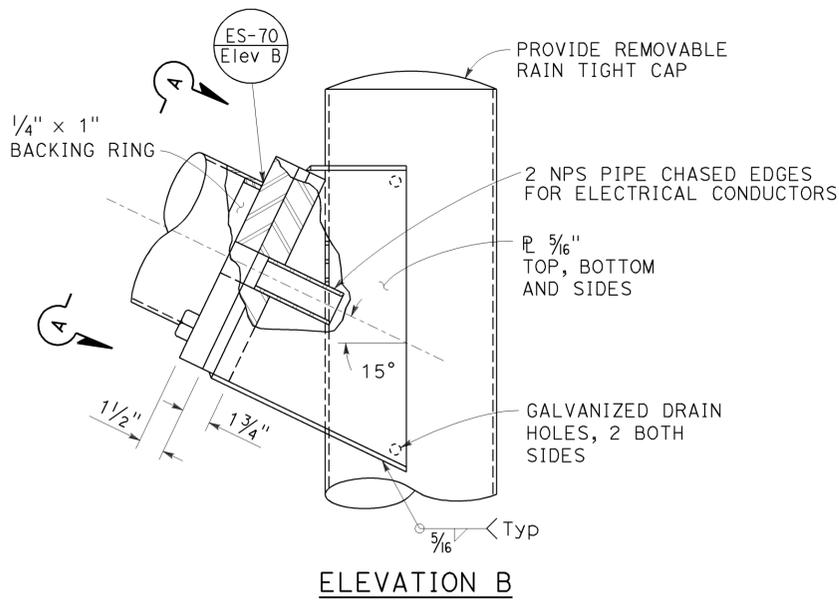
TO ACCOMPANY PLANS DATED 09-15-14

NOTES:

1. See Revised Standard Plan RSP ES-4A and Standard Plan ES-4D for attachment fitting details.
2. For wiring diagram, see Standard Plan ES-14B.
3. For additional notes and details, see Standard Plans ES-7M and ES-7N.
4. Handhole shall be located on the downstream side of traffic.
5. See project plans for type of standard to be installed.



**ADVANCE FLASHING BEACON WITH SLIP BASE INSTALLATION
DETAIL A**



**TYPE 1-A, 1-B, 1-C AND 1-D
ADVANCE FLASHING BEACON INSTALLATION
DETAIL D**

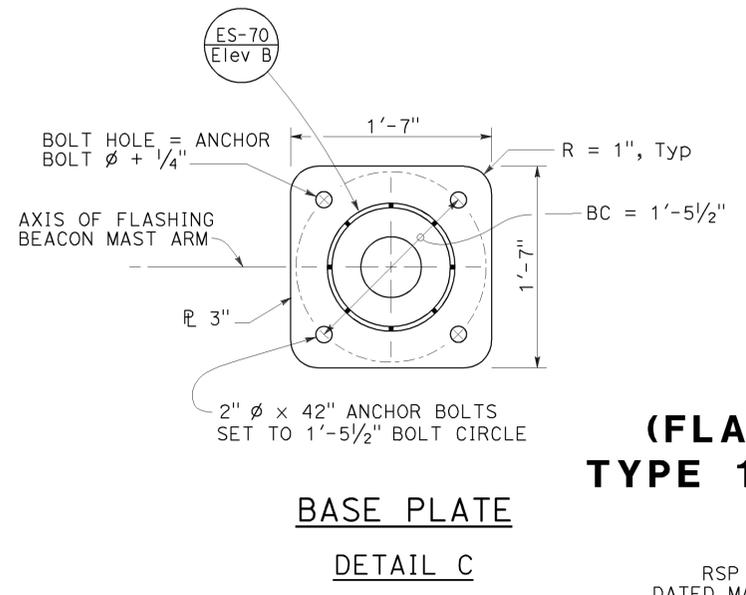
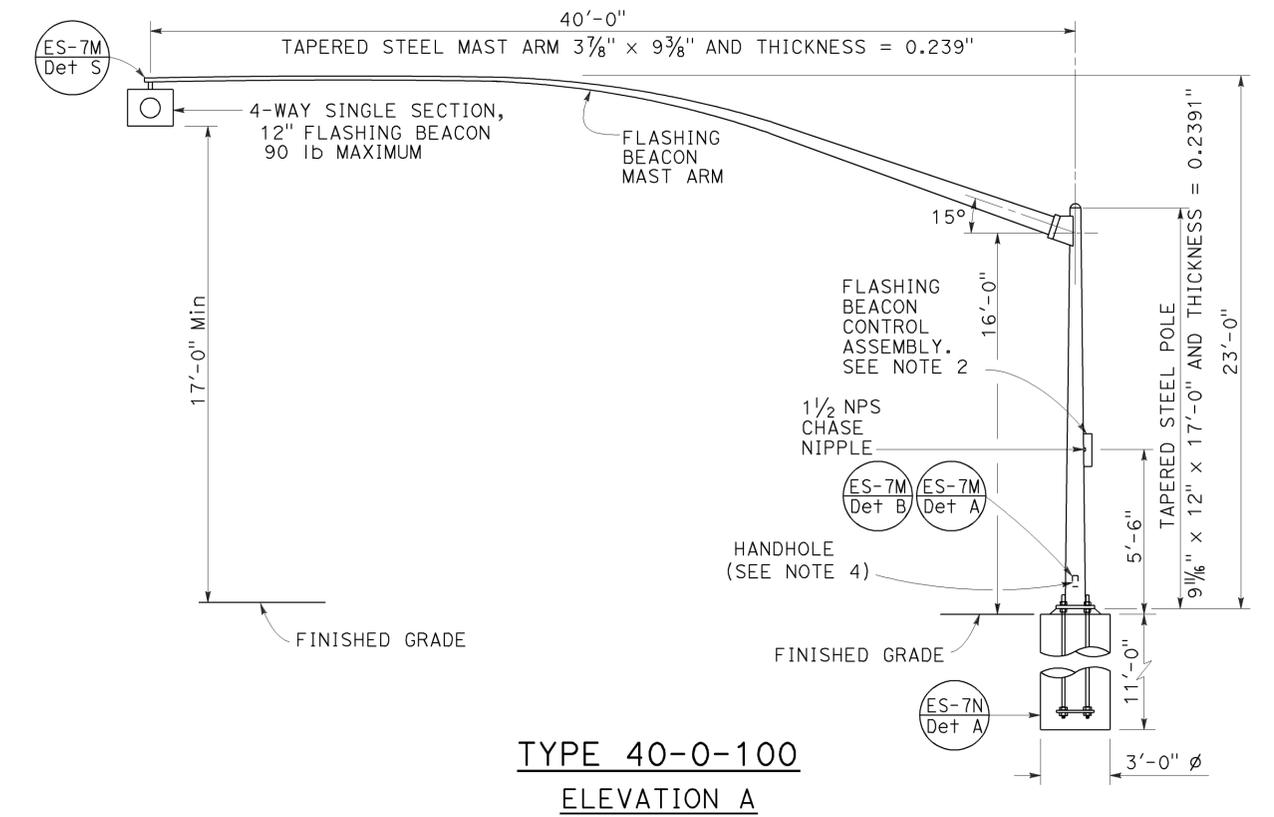
See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(FLASHING BEACON ON A TYPE 1, TYPE 15-FBS AND TYPE 40 STANDARD)
NO SCALE**

RSP ES-7J DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-7J DATED MAY 20, 2011 - PAGE 471 OF THE STANDARD PLANS BOOK DATED 2010.

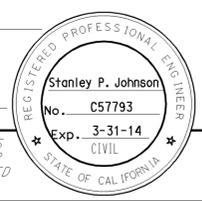
REVISED STANDARD PLAN RSP ES-7J



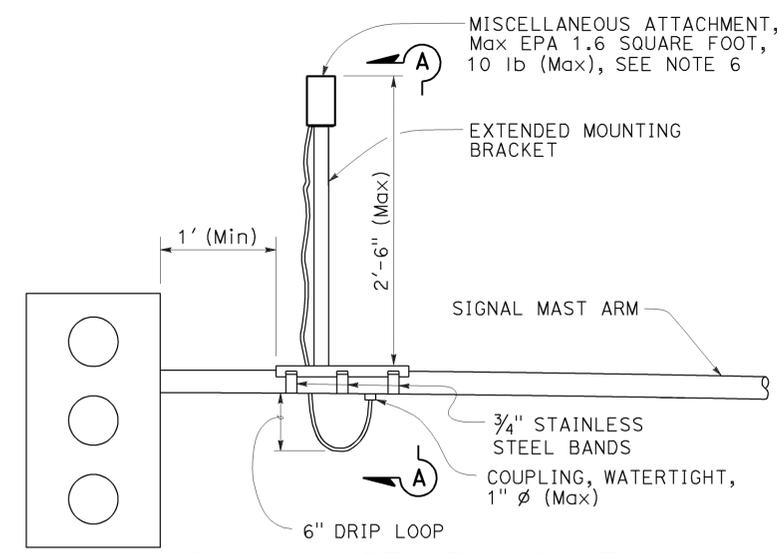
2010 REVISED STANDARD PLAN RSP ES-7J

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	326	332

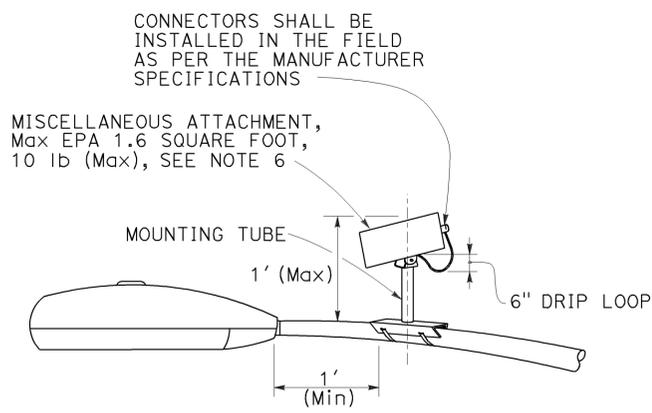

 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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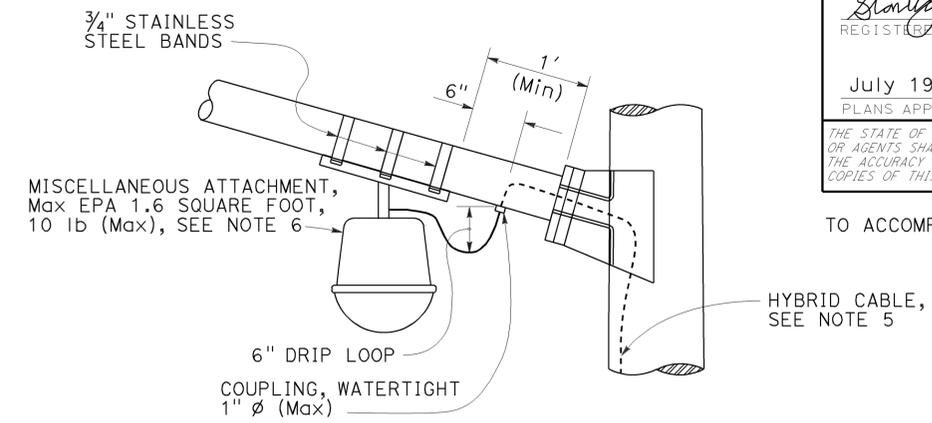
TO ACCOMPANY PLANS DATED 09-15-14



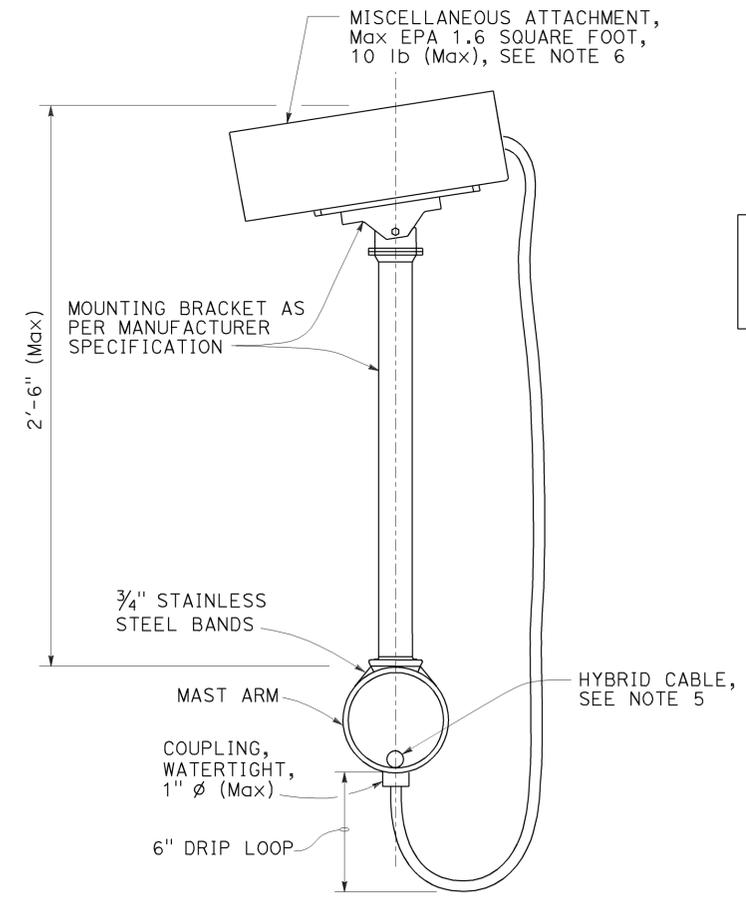
**SIGNAL MAST ARM MOUNT
DETAIL A**



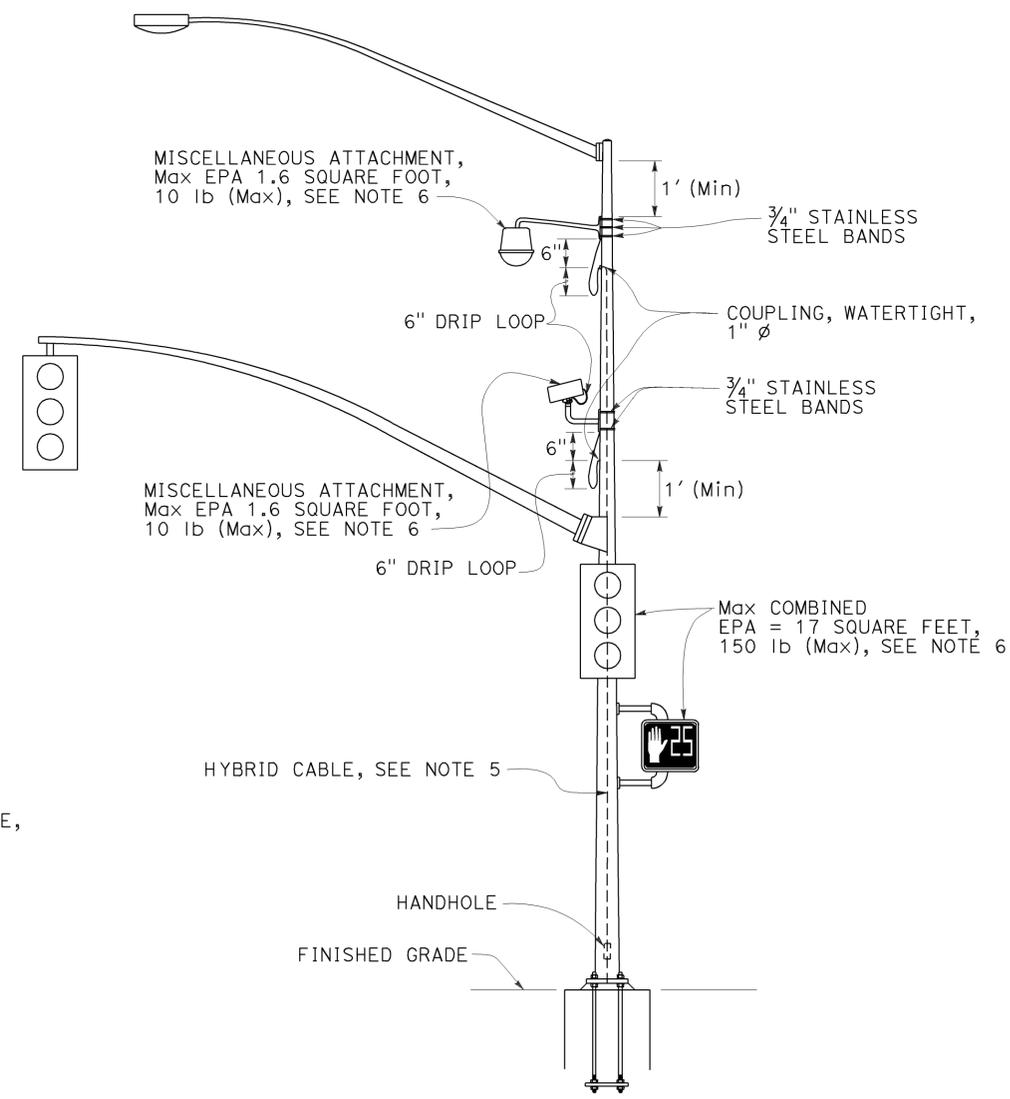
**LUMINAIRE MAST ARM MOUNT
DETAIL B**



**LUMINAIRE MAST ARM MOUNT
DETAIL C**



SECTION A-A



**SIGNAL POLE MOUNT
DETAIL D**

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

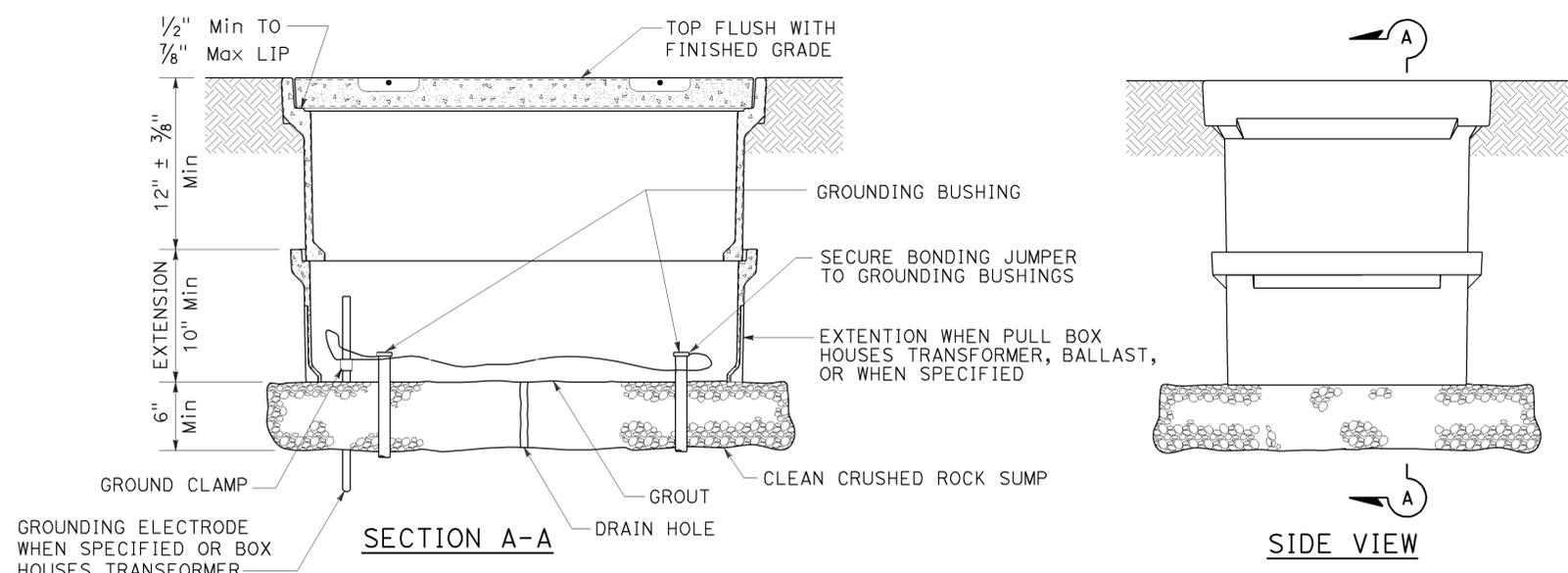
2010 REVISED STANDARD PLAN RSP ES-7R

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	163	8.4/9.4	327	332

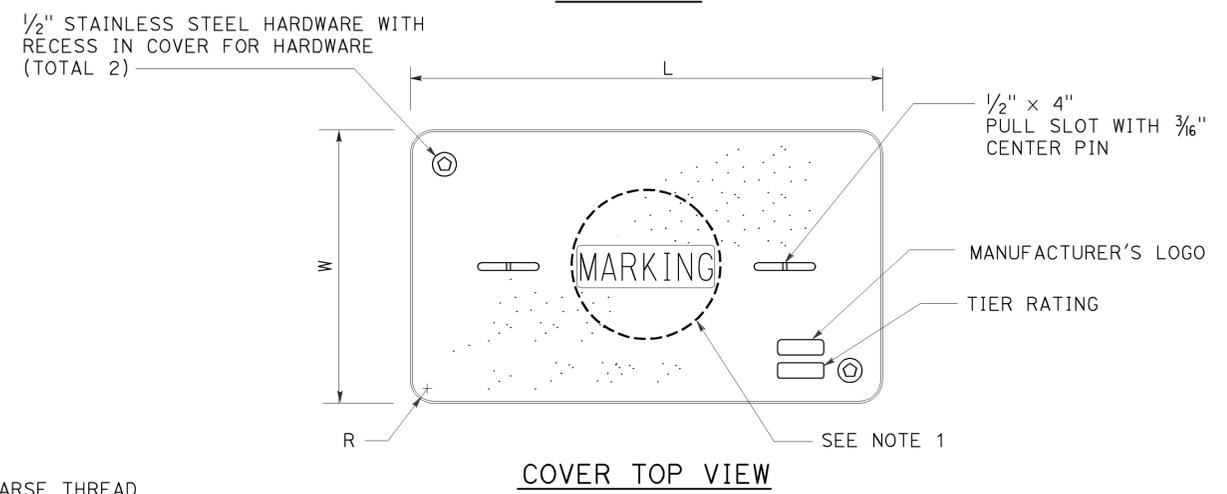
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

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.

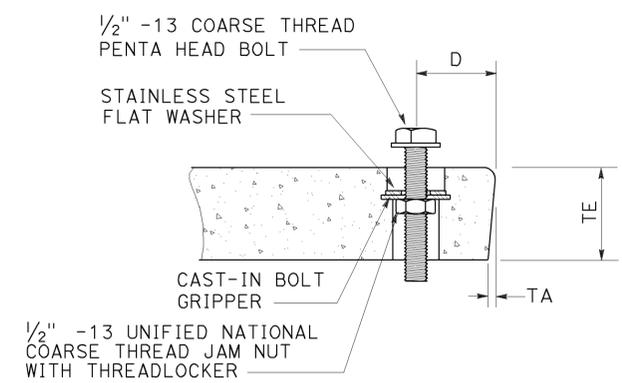
TO ACCOMPANY PLANS DATED 09-15-14



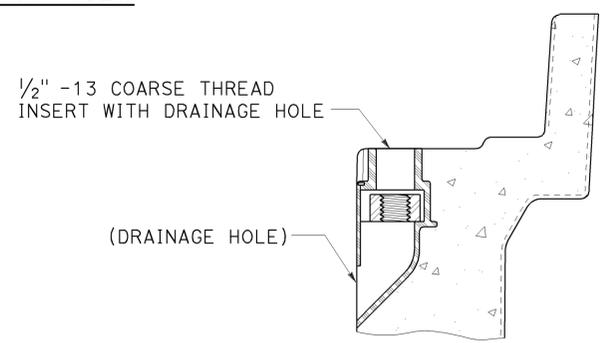
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
OR SIMILAR



TYPICAL THREADED INSERT
OR SIMILAR

NOTES:

- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
 - No. 3 1/2 pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5, 6, 9 or 9A pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8". Top outside radius of covers and pull boxes shall have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.
- All dimensions for the cover for non-traffic pull box are nominal values.

DIMENSION TABLE										
PULL BOX	PULL BOX			COVER						
	MINIMUM DEPTH BOX	MINIMUM DEPTH EXTENSION	MAXIMUM WEIGHT	L	W	R	TE	TA	D	MAXIMUM WEIGHT
No. 3 1/2	12"	N/A	40 lb	1' - 3 3/8"	10 1/8"	1 3/8"	2"	1/8"	1 3/4"	30 lb
No. 5	12"	10"	55 lb	1' - 11 1/4"	1' - 1 3/4"	1 3/8"	2"	1/8"	1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 6 1/2"	1' - 5 1/2"	1 3/8"	2"	1/8"	2"	85 lb

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

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

REVISED STANDARD PLAN RSP ES-8A

2010 REVISED STANDARD PLAN RSP ES-8A

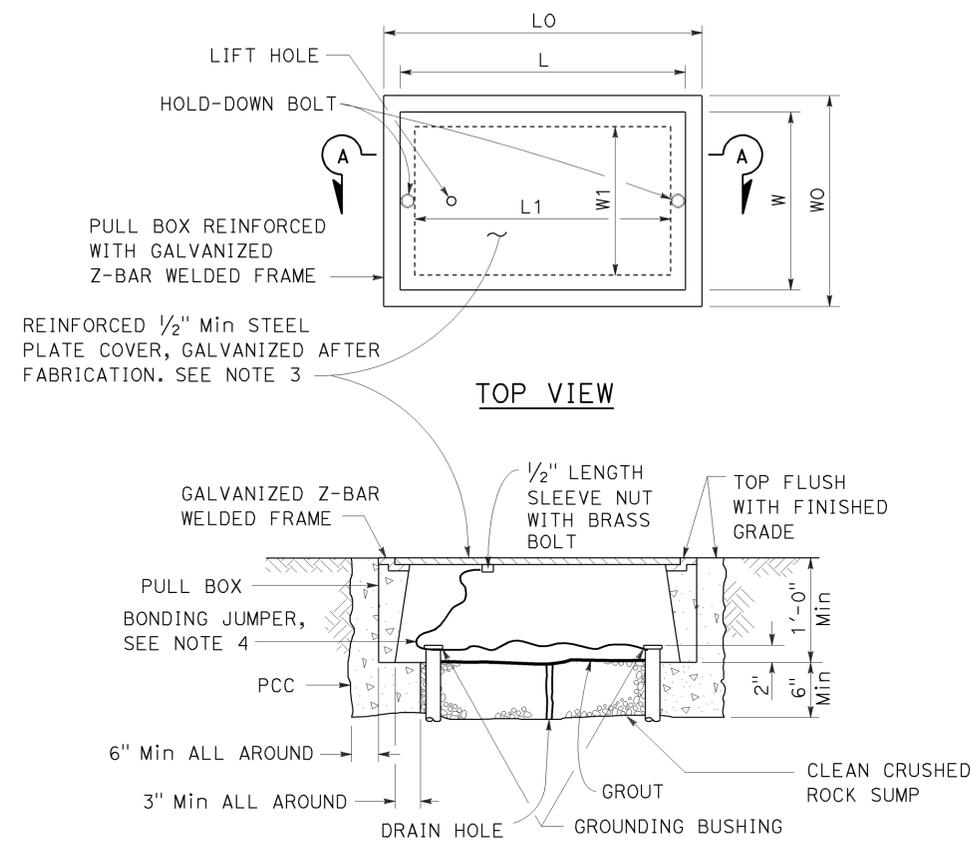
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	163	8.4/9.4	328	332

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

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



TO ACCOMPANY PLANS DATED 09-15-14



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

NOTES:

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

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

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

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

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

2010 REVISED STANDARD PLAN RSP ES-8B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	329	332

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

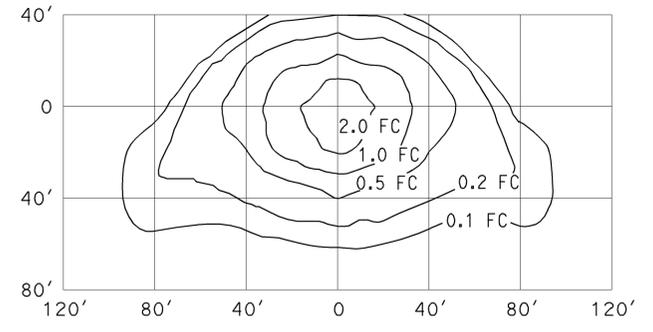
July 19, 2013
PLANS APPROVAL DATE

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

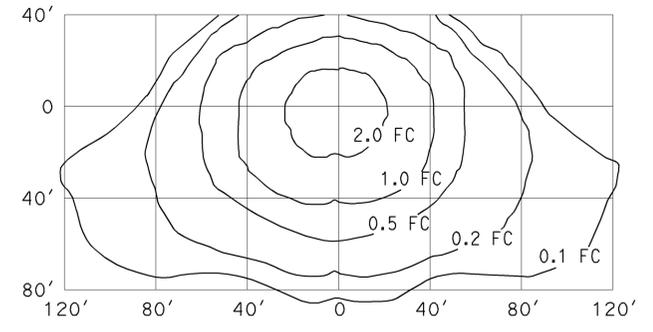
TO ACCOMPANY PLANS DATED 09-15-14

ISOFOOTCANDLE CURVE - MINIMUM



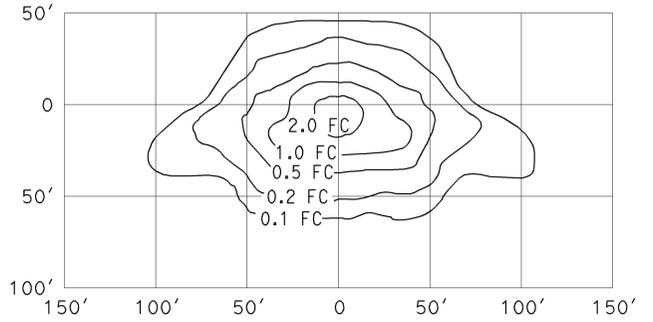
TYPE III MEDIUM CUTOFF
Cutoff Luminaire
34' Mounting Height
Lamp operated at 22,000 lm
200-W high pressure sodium lamp
ANSI Designation S66

ISOFOOTCANDLE CURVE - MINIMUM



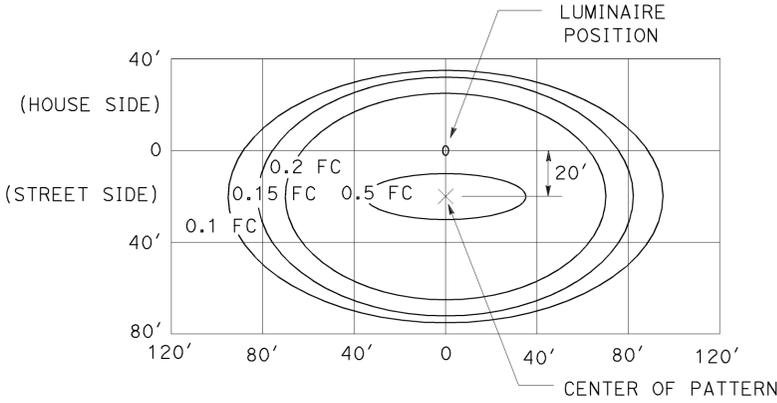
TYPE III MEDIUM CUTOFF
Cutoff Luminaire
40' Mounting Height
Lamp operated at 37,000 lm
310-W high pressure sodium lamp
ANSI Designation S67

ISOFOOTCANDLE CURVE - MINIMUM



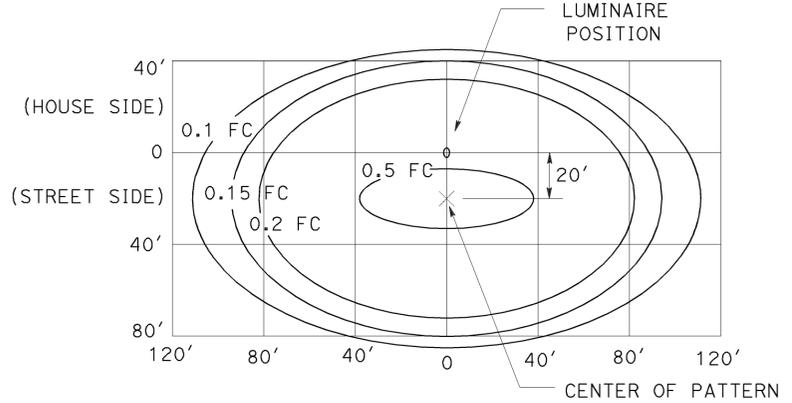
TYPE III MEDIUM CUTOFF
Cutoff Luminaire
30' Mounting Height
Lamp operated at 16,000 lm
150-W high pressure sodium lamp
ANSI Designation S55

ISOFOOTCANDLE CURVE - MINIMUM



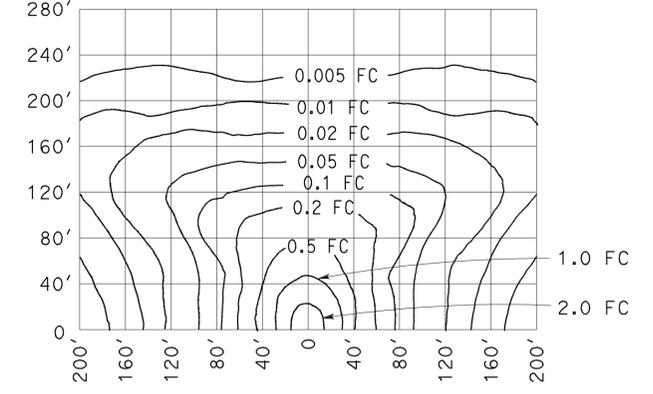
LED LUMINAIRE ROADWAY 1
165-W at 34' Mounting Height

ISOFOOTCANDLE CURVE - MINIMUM



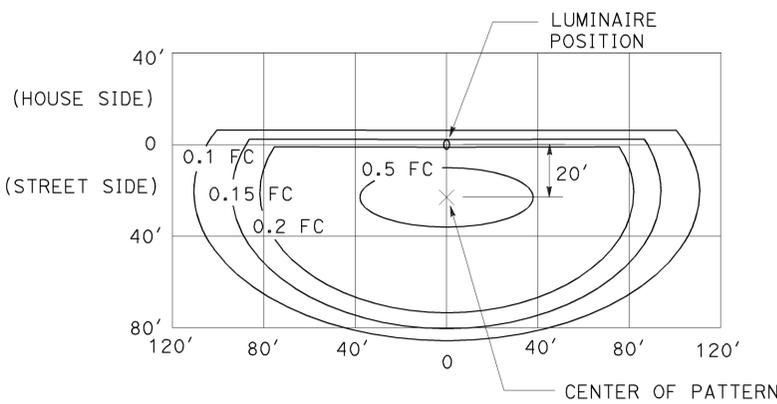
LED LUMINAIRE ROADWAY 2
235-W at 40' Mounting Height

ISOFOOTCANDLE CURVE - MINIMUM



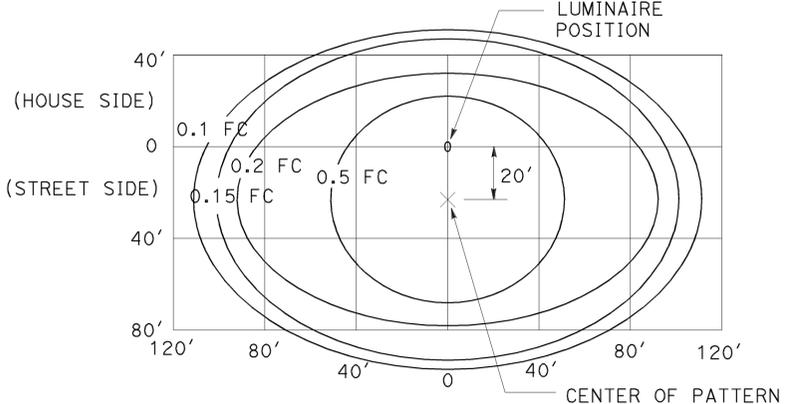
LOW PRESSURE SODIUM LUMINAIRE
40' Mounting Height
Lamp operated at 33,000 lm
180-W low pressure sodium lamp

ISOFOOTCANDLE CURVE - MINIMUM



LED LUMINAIRE ROADWAY 3
235-W at 40' Mounting Height
with back side control

ISOFOOTCANDLE CURVE - MINIMUM



LED LUMINAIRE ROADWAY 4
300-W at 40' Mounting Height

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(ISOFOOTCANDLE DIAGRAMS)**

NO SCALE
RSP ES-10A DATED JULY 19, 2013 SUPERSEDES RSP ES-10A DATED JULY 20, 2012
THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-10A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	330	332

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

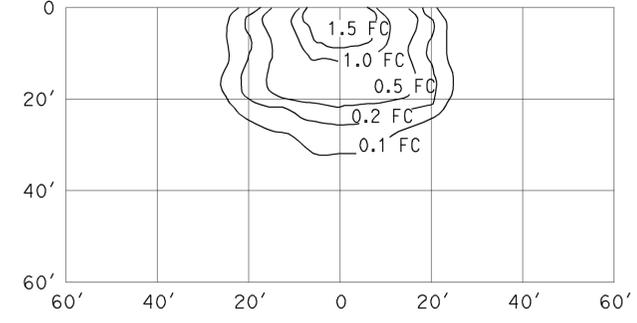
July 20, 2012
PLANS APPROVAL DATE

Jeffery G. McRae
No. E14512
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 09-15-14

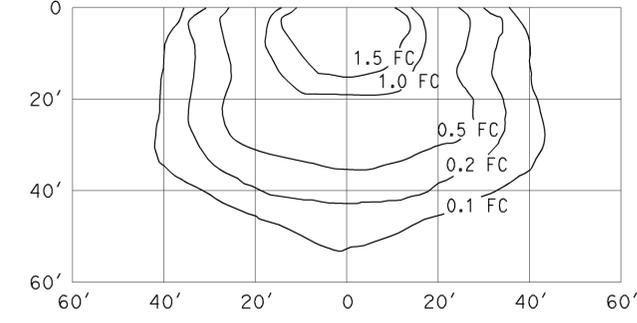
ISOFOOTCANDLE CURVE - MINIMUM



WALL LUMINAIRE

15' Mounting Height
Lamp operated at 5,800 lm
70-W high pressure sodium lamp
ANSI Designation S62

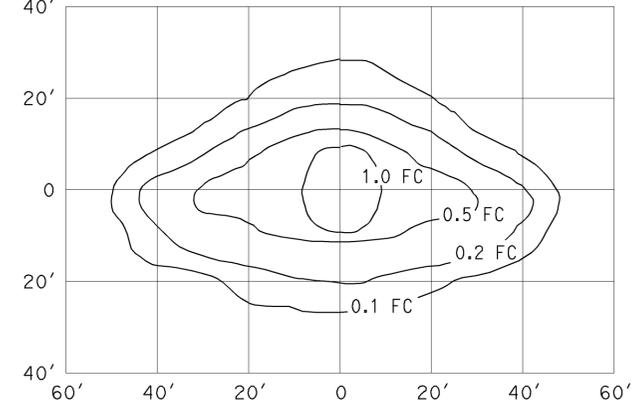
ISOFOOTCANDLE CURVE - MINIMUM



WALL LUMINAIRE

15' Mounting Height
Lamp operated at 9,500 lm
100-W high pressure sodium lamp
ANSI Designation S54

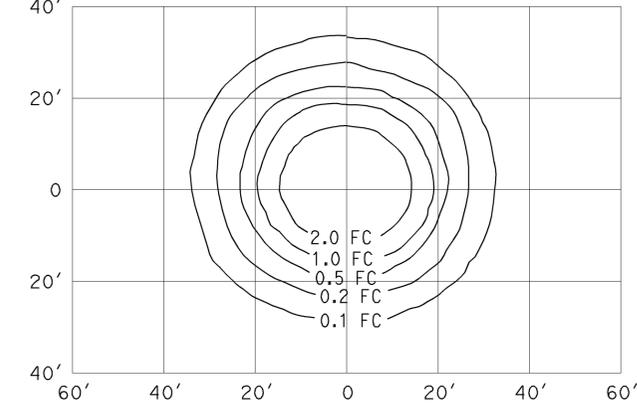
ISOFOOTCANDLE CURVE - MINIMUM



**PENDANT SOFFIT LUMINAIRE
TYPE III SHORT**

17' Mounting Height
Lamp operated at 5,800 lm
70-W high pressure sodium lamp
ANSI Designation S62

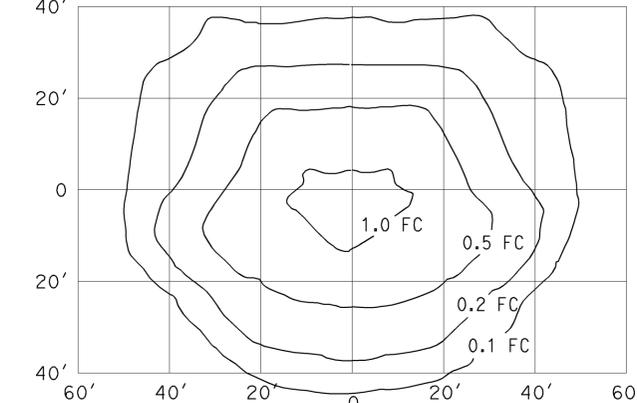
ISOFOOTCANDLE CURVE - MINIMUM



PENDANT SOFFIT LUMINAIRE

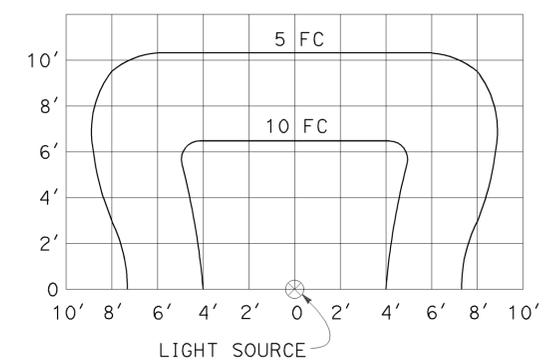
17' Mounting Height
Lamp operated at 5,800 lm
70-W high pressure sodium lamp
ANSI Designation S62

ISOFOOTCANDLE CURVE - MINIMUM



FLUSH SOFFIT LUMINAIRE

17' Mounting Height
Lamp operated at 5,800 lm
70-W high pressure sodium lamp
ANSI Designation S62



**SIGN LIGHTING FIXTURE
ISOFOOTCANDLE DIAGRAM**

NOTES:

1. Curves represent the minimum footcandle (FC) of initial illumination on a 10'-0" x 20'-0" panel.
2. The FC shown are with the fixture attached to the light fixture mounting channel which places the center of the source 4'-8" in front of panel and 1'-0" below the bottom edge.
3. Applicable lamp: 85-W fluorescent phosphor coated induction lamp.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(ISOFOOTCANDLE DIAGRAMS)**

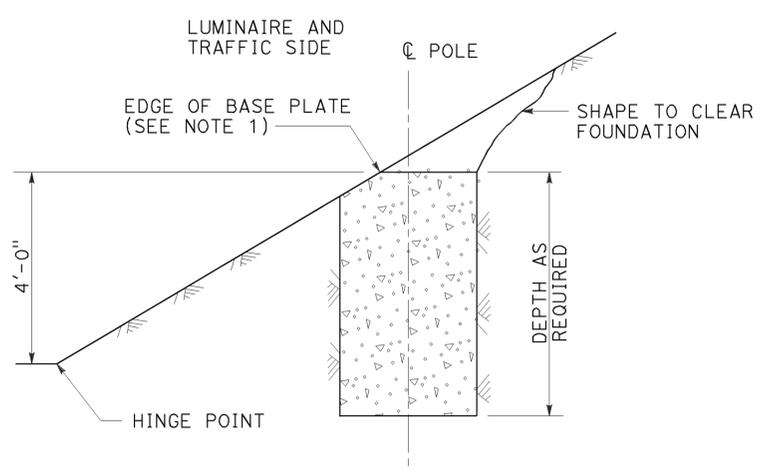
NO SCALE

RSP ES-10B DATED JULY 20, 2012 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED 2010.

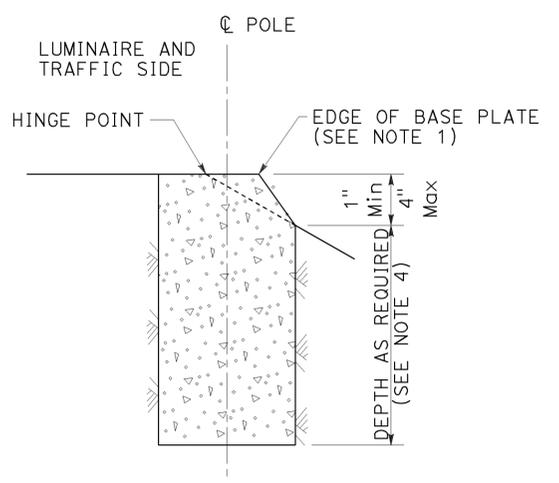
2010 REVISED STANDARD PLAN RSP ES-10B

TO ACCOMPANY PLANS DATED 09-15-14

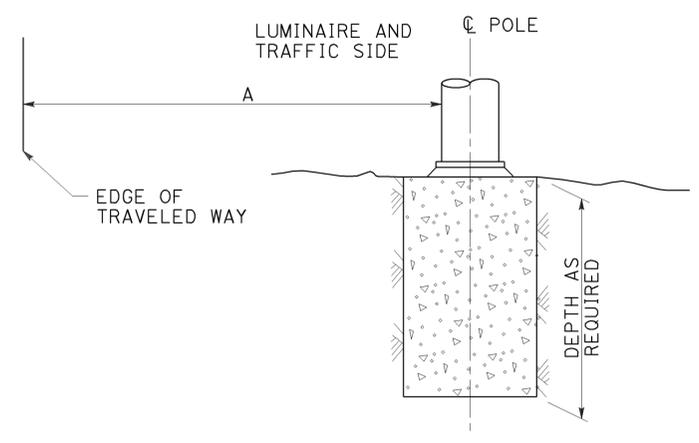
STANDARD TYPE	SETBACK (DIMENSION A)
32	30'-0" (Min)
31	20'-0" (Min)
15, 15D, 15-SB, 21, 21D, 30	ARM LENGTH (Min)



CUT SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-1
 See Note 2 and 3



FILL SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-2
 See Note 2 and 3

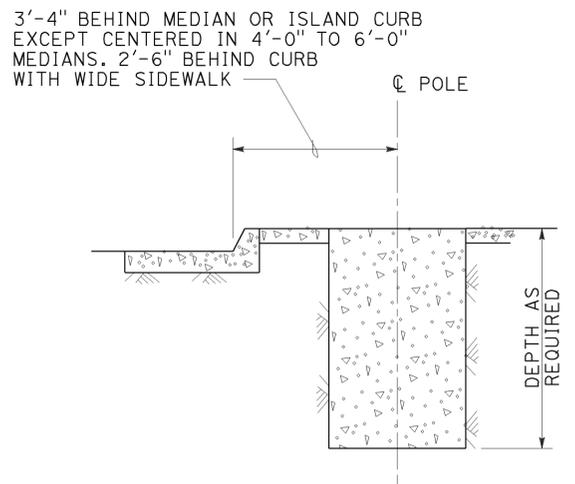


FLAT SECTIONS, CUT OR FILL SLOPES
4:1 OR FLATTER
DETAIL A-3
 See Note 2

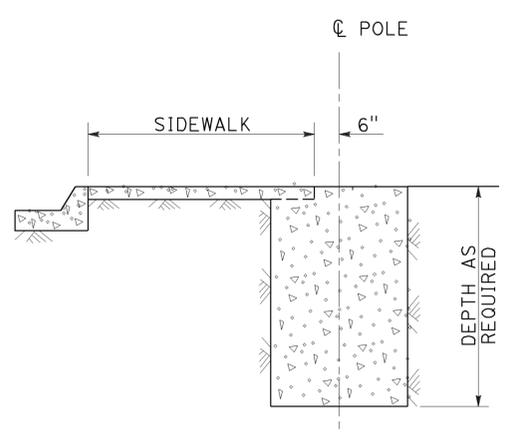
FOUNDATIONS ADJACENT TO ALL ROADWAYS EXCEPT
IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL A

NOTES:

1. Where a portion of the foundation is above grade, the top edges shall have a 1" chamfer.
2. Slopes shall be horizontal to vertical ratio (Horizontal : Vertical).
3. Horizontal setbacks on cut and fill slopes steeper than 4:1 shall not exceed the distance shown for flat sections.
4. CIDH embedment depth shall be increased beyond standard depths by the diameter of the CIDH.



MEDIAN, ISLAND
OR WIDE SIDEWALK
DETAIL B-1
 7' Wide and wider



NARROW SIDEWALK
DETAIL B-2
 Less than 7' wide

FOUNDATIONS IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL B

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(FOUNDATION INSTALLATIONS)
 NO SCALE

RSP ES-11 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-11
 DATED MAY 20, 2011 - PAGE 488 OF THE STANDARD PLANS BOOK DATED 2010.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	163	8.4/9.4	332	332

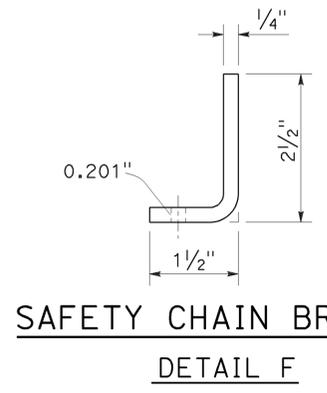
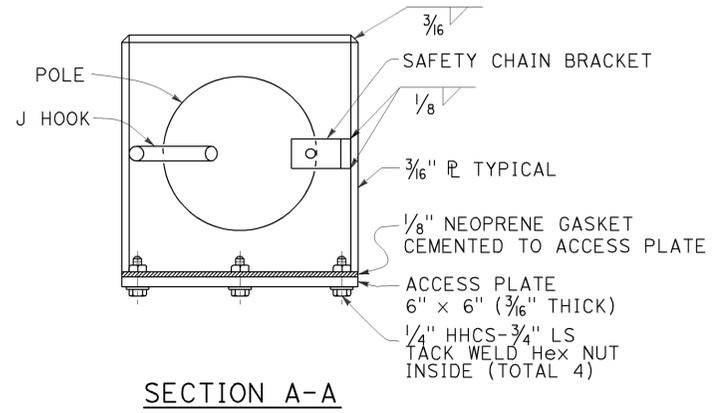
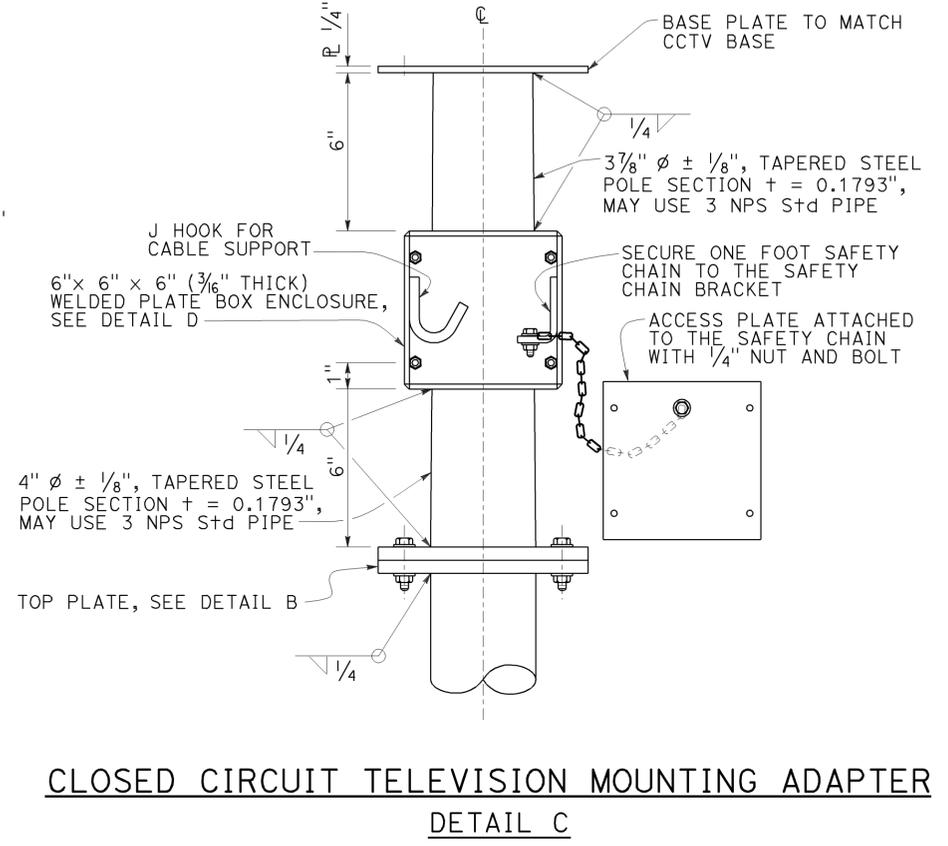
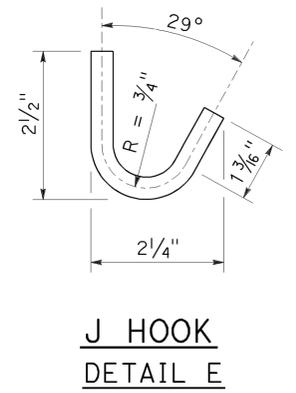
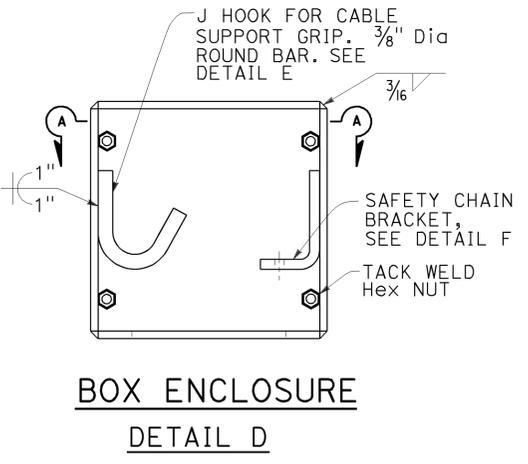
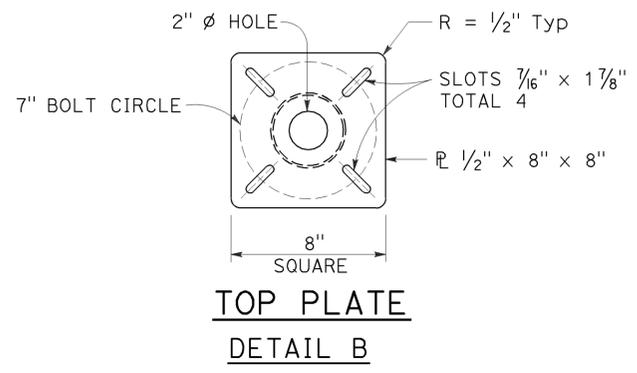
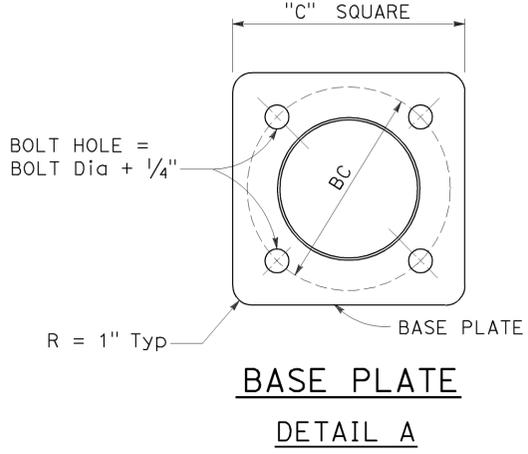
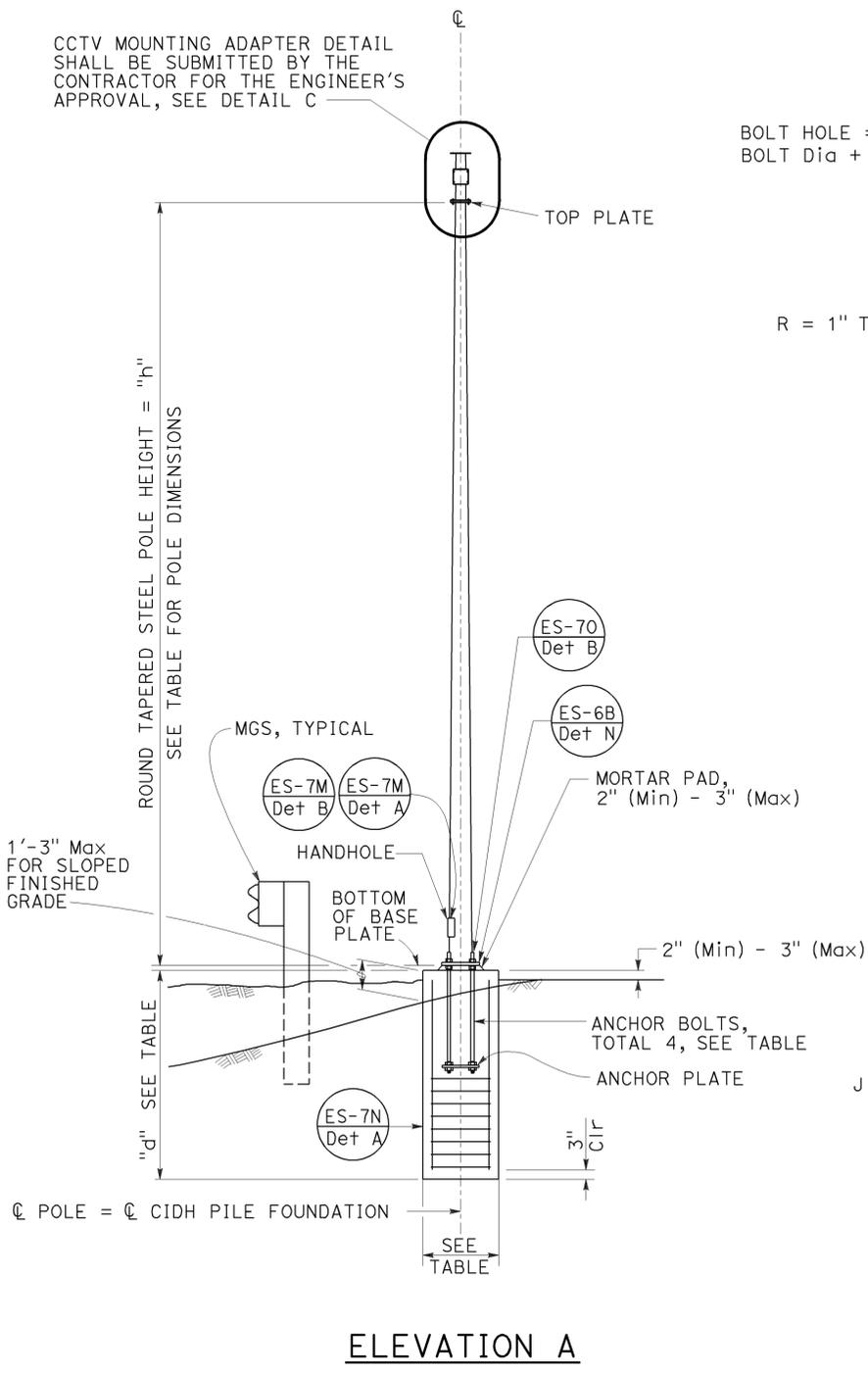
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 November 15, 2013
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
 Exp. 3-31-14
 CIVIL
 STATE OF CALIFORNIA

POLE TYPE	POLE DATA			BASE PLATE DATA				CIDH		
	HEIGHT "h"	Min OD		THICKNESS	"c"	THICKNESS	ANCHOR BOLT SIZE	BC = BOLT CIRCLE	Dia	"d"
		BASE	TOP							
CCTV 25	25'	7 ³ / ₈ "	3 ³ / ₄ "	0.1793"	1'-1"	1"	1/2" ϕ x 36"	11 ¹ / ₂ "	2'-6"	7'-0"
CCTV 30	30'	8"			1'-1 ¹ / ₂ "					7'-6"
CCTV 35	35'	8 ⁵ / ₈ "			1'-2"					8'-0"
CCTV 40	40'	9 ³ / ₈ "			1'-1 ¹ / ₂ "					8'-0"
CCTV 45	45'	10"			1'-3"					8'-6"

TO ACCOMPANY PLANS DATED 09-15-14

CCTV MOUNTING ADAPTER DETAIL SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE ENGINEER'S APPROVAL, SEE DETAIL C



NOTES:

- The Contractor shall verify controlling field dimensions before ordering or fabricating any material.
- During pole installation, the post shall be raked as necessary with the use of leveling nuts to provide a plumb pole axis.
- Wind Loadings (3-second gust): 100 mph
- Unit Stresses (Structural Steel):
 - fy = 55,000 psi (tapered steel tube and anchor bolts)
 - fy = 50,000 psi (unless otherwise noted)
- Unit Stresses (Reinforced Concrete):
 - f'c = 3,625 psi
 - fy = 60,000 psi

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(CLOSED CIRCUIT TELEVISION,
25' TO 45' POLE)
NO SCALE**

RSP ES-16B DATED NOVEMBER 15, 2013 SUPERSEDES STANDARD PLAN ES-16B DATED MAY 20, 2011 - PAGE 501 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-16B

2010 REVISED STANDARD PLAN RSP ES-16B