

ALL NOTES REFER TO DRAWING E-2

CITY OF NAPA

PUBLIC WORKS DEPARTMENT

STANDARD RESIDENTIAL  
STREET LIGHT

DRAWN BY: BRL

CHECKED BY: SEC

DATE: 06/2018

APPROVED BY: JRL

SCALE: NONE

DRAWING NO.

FIELD NOTES:

E-1

NOTES

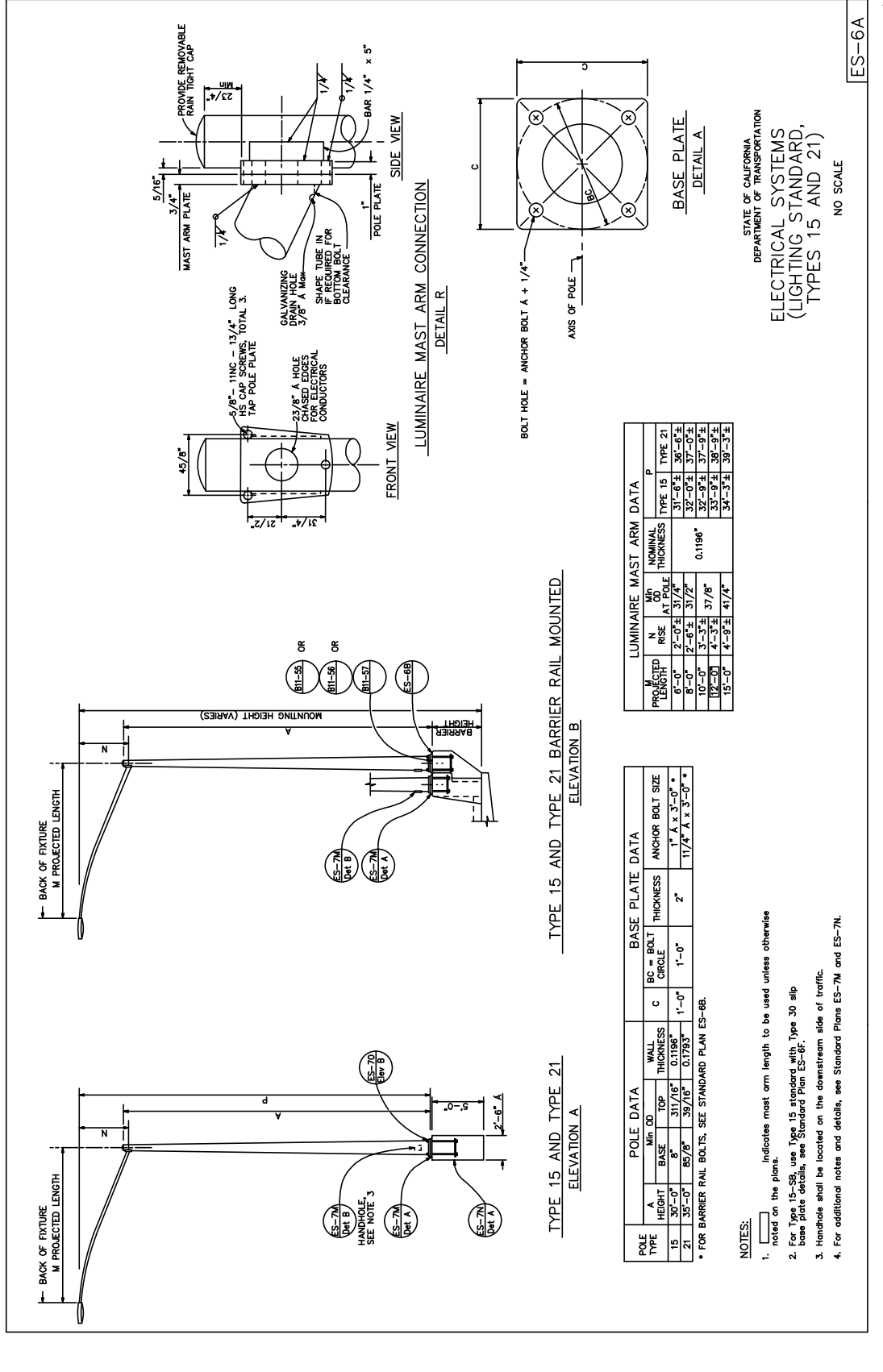
1. STREET LIGHT POLES AND MAST ARMS SHALL BE TYPE 15 PER OCT 30, 2015 CALTRANS STANDARD PLANS AND SPECIFICATIONS DRAWING ES-6A. SPLICING SHALL BE PER OCT 30, 2015 CALTRANS STANDARD PLANS AND SPECIFICATIONS DRAWING ES-13A.
2. STREET LIGHT POLE FOUNDATIONS, BOLTS, AND REINFORCEMENT CAGES SHALL BE PER OCT 30, 2015 CALTRANS STANDARD PLANS AND SPECIFICATIONS DRAWING ES-7N. CAGES DO NOT REQUIRE WELDING.
3. STREET LIGHT LOCATIONS SHALL BE SHOWN ON IMPROVEMENT PLANS, POLE SPACING SHALL BE PROVIDED BY CITY OF NAPA ELECTRICAL DIVISION.
4. DEVELOPER SHALL CONTACT &E TO ESTABLISH STREET LIGHT SERVICE LOCATIONS, THEN PROVIDE CITY OF NAPA PUBLIC WORKS DEPARTMENT WITH SAME LOCATIONS, IN ACCORDANCE WITH THE LS2A RATE SCHEDULE.
5. LED FIXTURE SIZE MAY BE INCREASED ON COLLECTOR AND ARTERIAL STREETS OR AS OTHERWISE DETERMINED BY THE CITY OF NAPA ELECTRICAL DIVISION.
6. STREET LIGHT FIXTURE SHALL BE 120 VOLT LED CREE COBRA HEAD WITH TWIST LOCK PHOTO ELECTRIC CONTROL RECEPTACLE ON TOP. REFER TO IMPROVEMENT PLANS FOR SIZE.
7. PHOTO ELECTRIC CONTROL SHALL BE FISHER-PIERCE ELL-124.
8. STREET LIGHT WIRE FROM PULL BOX TO FIXTURE SHALL BE #10 THHN SOLID OR #10 THW STRANDED (TS) WIRE.
9. ALL FIELD WIRING SHALL BE #8 THHN OR THW STRANDED.
10. BOND WIRE SHALL BE CONNECTED TO ALL POLES AND GROUND RODS IN THE SYSTEM.
11. INSTALL 1/2" x 8' COPPER CLAD GROUND ROD IN CENTER OF EACH FOUNDATION.
12. THERE SHALL BE NO SPLICES IN POLE BASE.
13. ALL CONDUITS SHALL BE 24" DEEP IN THE CLEAR FROM FINISH GRADE, 2" SAND BED, 12" MINIMUM SAND COVER.
14. PULL BOXES SHALL BE PLACED NEXT TO EACH STREET LIGHT AND AT PG&E SECONDARY BOX LOCATIONS THAT FEED STREET LIGHTS. ADDITIONAL PULL BOXES SHALL BE INSTALLED IN CONDUIT RUNS EXCEEDING 200' OR AS OTHERWISE DIRECTED BY THE ENGINEER. BOX LIDS SHALL BE MARKED "STREET LIGHTING" AND SHALL HAVE HOLD DOWN BOLTS.
15. IN UNDEVELOPED AREAS CONSTRUCT A 30"x30" CONC. PAD (4" THICK). IF A ROUND FOOTING IS POURED, STOP AT THE ELEVATION OF THE BOTTOM OF THE SIDEWALK.
16. DUE TO POSSIBLE CONFLICTING UTILITIES, STREET LIGHTS ARE SUBJECT TO RELOCATION WITH CITY OF NAPA ELECTRICAL DIVISION APPROVAL.
17. COBRA HEAD MODEL NUMBERS SHALL BE LISTED ON THE IMPROVEMENT PLANS.
18. IT IS THE RESPONSIBILITY OF THE DEVELOPER OR THEIR REPRESENTATIVE TO CONTACT THE MANUFACTURER FOR THE LATEST MODEL NUMBERS/TYPES.
19. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL U.S.A (811) AT LEAST 2 WORKING DAYS PRIOR TO ANY EARTHWORK.
20. CONTACT CITY OF NAPA ELECTRICAL DIVISION AT (707) 257-9588 FOR INSPECTION 24 HOURS PRIOR TO POURING CONCRETE AND/OR BACKFILLING CONDUIT. CONTACT CITY OF NAPA ELECTRICAL DIVISION FOR FINAL INSPECTION AND TURN-ON.
21. ALL CONDUIT SHALL BE SEALED WITH APPROVED DUCT SEAL. CONDUITS FOR FUTURE EXTENSIONS SHALL BE CAPPED WITH CONDUIT PLUGS.

CITY OF NAPA

PUBLIC WORKS DEPARTMENT

STANDARD RESIDENTIAL  
STREET LIGHT - NOTES

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FIELD NOTES:			



LUMINAIRE MAST ARM DATA

PROJECTED LENGTH	N RISE	MOUNTING HEIGHT (VARIES)	NOMINAL THICKNESS	TYPE 15		TYPE 21	
				TYPE 15	TYPE 21	TYPE 15	TYPE 21
6'-0"	2'-0"	31/4"	0.1198*	31'-6"	36'-6"	37'-0"	37'-0"
8'-0"	2'-6"	31/2"	0.1198*	32'-0"	37'-0"	37'-9"	37'-9"
10'-0"	3'-5"	37/8"	0.1198*	32'-9"	37'-9"	38'-9"	38'-9"
12'-0"	4'-3"	41/4"	0.1198*	33'-9"	38'-9"	39'-9"	39'-9"
15'-0"	4'-9"	41/4"	0.1198*	34'-3"	39'-3"	39'-3"	39'-3"

POLE DATA

POLE TYPE	HEIGHT	BASE	MIN. OD	OPG	WALL THICKNESS	BASE PLATE DATA		ANCHOR BOLT SIZE
						BC = BOLT CIRCLE	THICKNESS	
15	35'-0"	31/8"	31/8"	0.1793	1'-0"	2"	1" A x 3'-0" *	
21	35'-0"	39/16"	39/16"	0.1793	1'-0"	2"	1 1/4" A x 3'-0" *	

- NOTES:
- Indicates mast arm length to be used unless otherwise noted on the plans.
  - For Type 15-21, use Type 15 standard with Type 30 slip base plate details, see Standard Plan ES-6B.
  - Handhole shall be located on the downstream side of traffic.
  - For additional notes and details, see Standard Plans ES-7M and ES-7N.

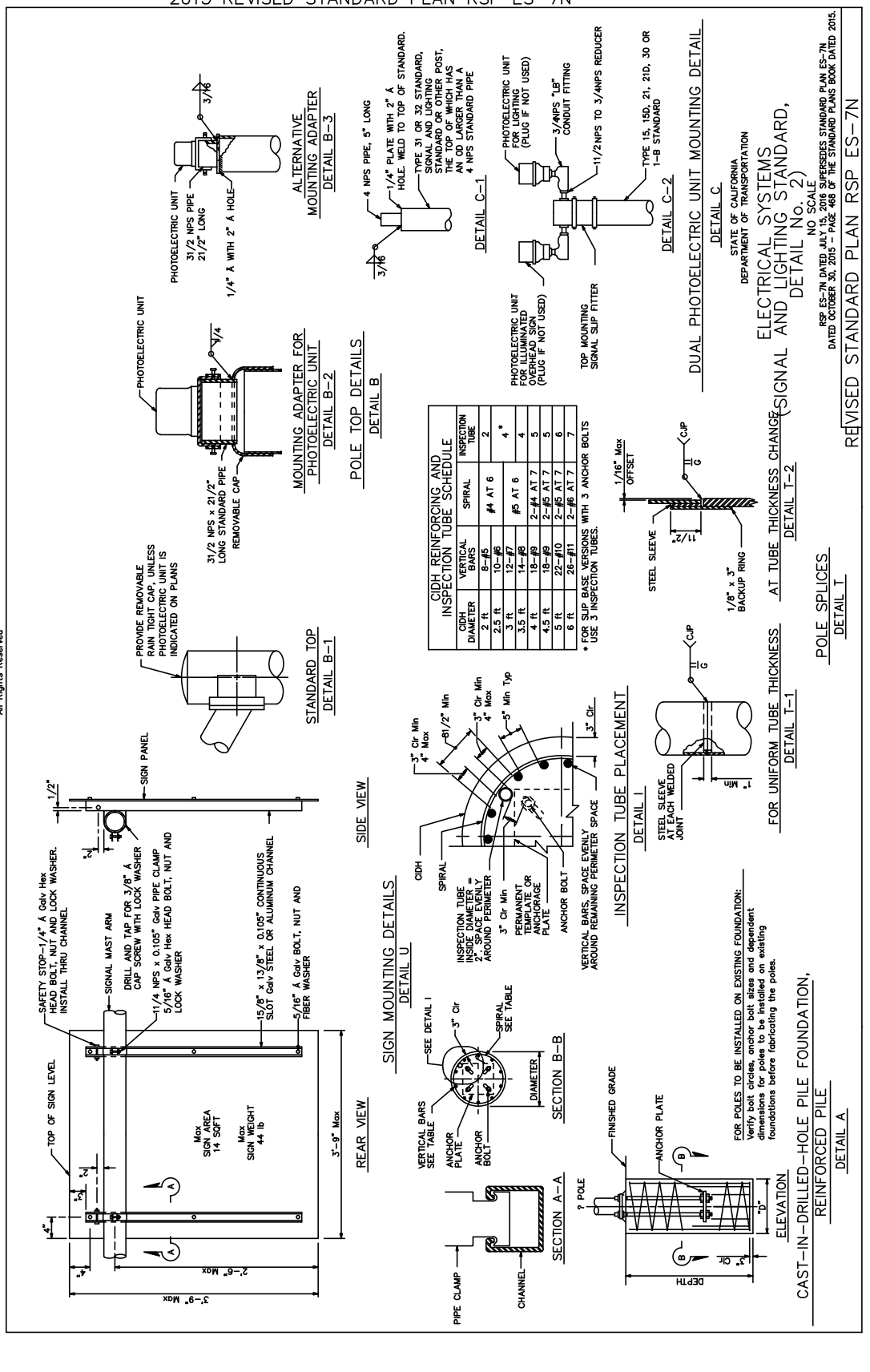
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
ELECTRICAL SYSTEMS  
(LIGHTING STANDARD,  
TYPES 15 AND 21)  
NO SCALE

ES-6A

DRAWN BY:	BRL
DATE:	06/2018
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FIELD NOTES:	

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CIDH REINFORCING AND INSPECTION TUBE SCHEDULE

CIDH DIAMETER	VERTICAL BARS	SPIRAL	INSPECTION TUBE
2 ft	8-#5	#4 AT 6	2
2.5 ft	10-#5	#4 AT 6	4*
3 ft	12-#7	#5 AT 6	4
3.5 ft	14-#8	2-#4 AT 7	5
4 ft	18-#9	2-#5 AT 7	5
4.5 ft	18-#9	2-#5 AT 7	6
5 ft	22-#10	2-#6 AT 7	7
6 ft	26-#11	2-#6 AT 7	7

\* FOR SLIP BASE VERSIONS WITH 3 ANCHOR BOLTS  
USE 3 INSPECTION TUBES.

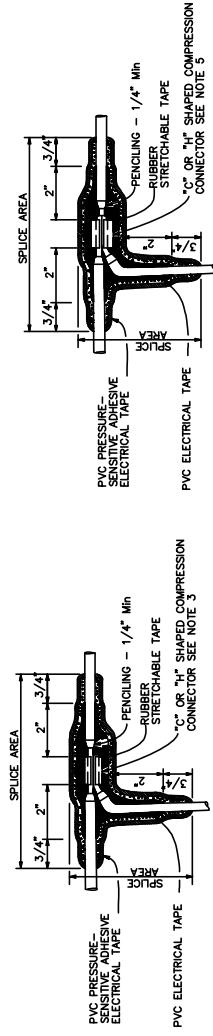
FOR POLES TO BE INSTALLED ON EXISTING FOUNDATION:  
Verify bolt circles, anchor bolt sizes and dependent dimensions for poles to be installed on existing foundations before fabricating the poles.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
ELECTRICAL SYSTEMS  
ELECTRICAL AND LIGHTING STANDARD,  
DETAIL NO. 2

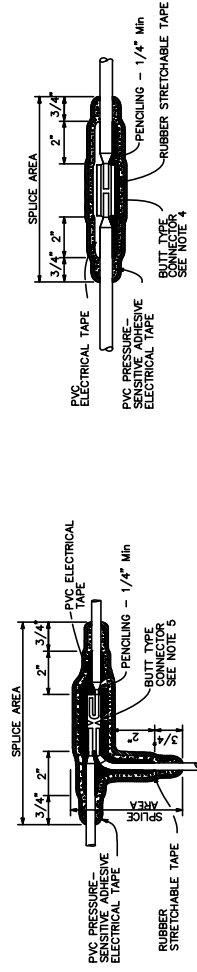
SCALE: AS SHOWN  
RSP ES-7N DATED JULY 15, 2015 SUPERSEDES STANDARD PLAN ES-7N DATED OCTOBER 30, 2015 - PAGE 468 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP ES-7N

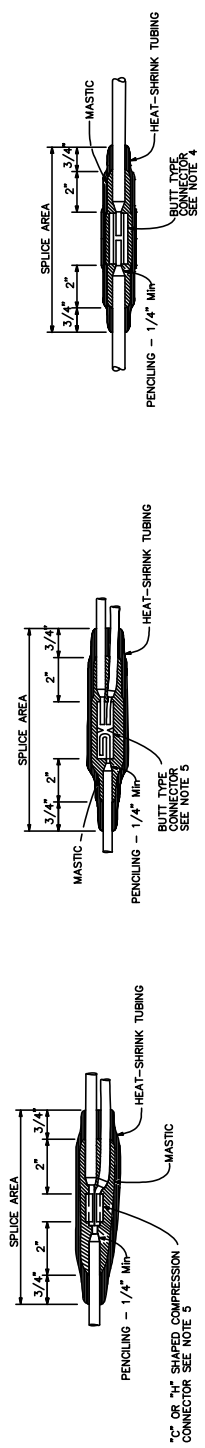
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TYPICAL SPLICE INSULATION HEAT-SHRINK TUBING



TYPICAL SPLICE INSULATION METHOD B



TYPICAL SPLICE INSULATION HEAT-SHRINK TUBING

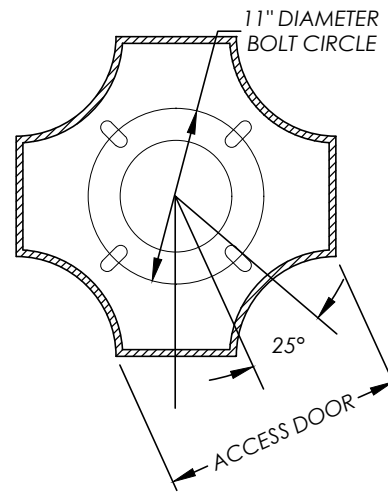
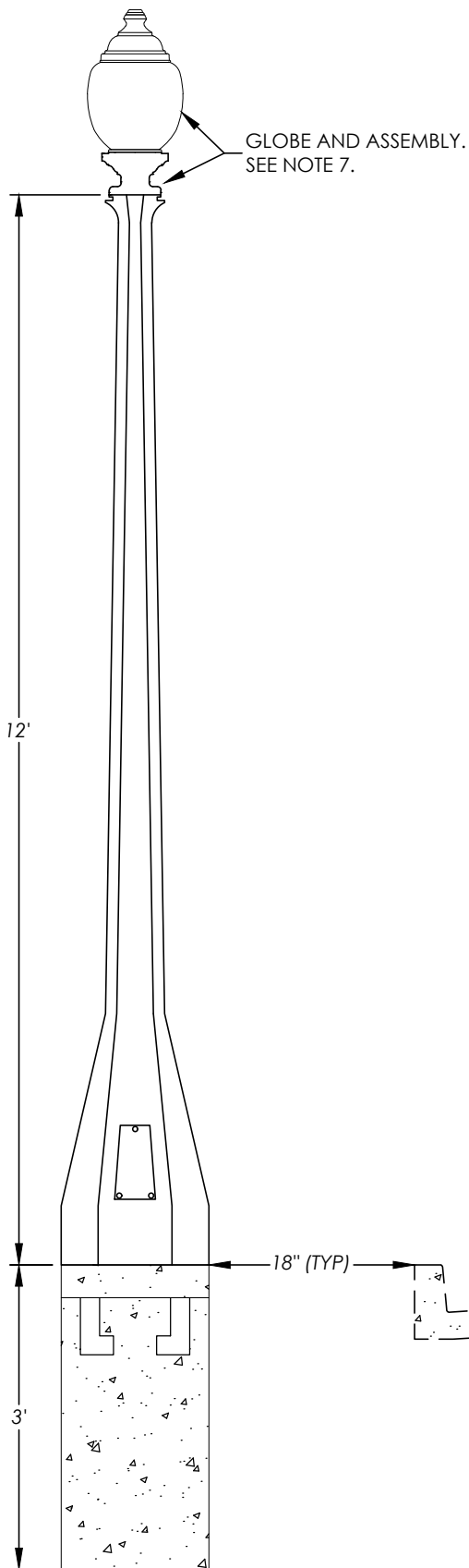
- NOTES:**
1. Dimensions are minimum.
  2. Rubber tapes shall be rolled after application.
  3. Between 1 free-end and 1 through conductor.
  4. Between 2 free-end conductors.
  5. Between 3 free-end conductors.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
ELECTRICAL SYSTEMS  
(SPLICE INSULATION METHODS DETAILS)  
NO SCALE

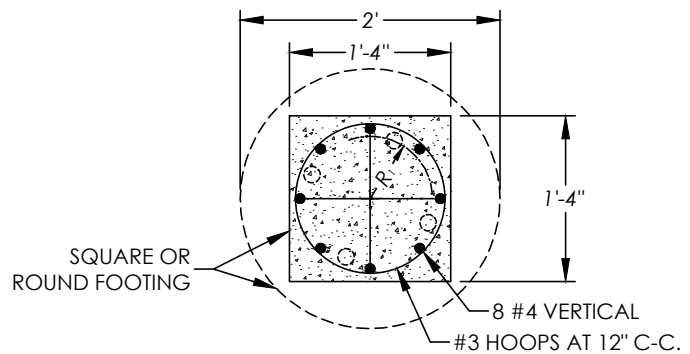
RSP ES-13A DATED JULY 21, 2017 SUPERSEDES RSP ES-13A DATED APRIL 15, 2016 AND STANDARD PLAN ES-13A DATED OCTOBER 30, 2015 - PAGE 484 OF THE STANDARD PLANS BOOK DATED 2015.  
REVISED STANDARD PLAN RSP ES-13A

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PLAN VIEW - POLE



R<sub>1</sub> = ANCHOR BOLT DIA. DIMENSION R AND  
BOLT PATTERN TO SUIT POLE BASE FURNISHED.

PLAN VIEW - FOUNDATION

**NOTES**

1. REFER TO THE CITY OF NAPA DOWNTOWN SPECIFIC PLAN FOR APPROVED LOCATIONS OF THIS STANDARD STREET LIGHT. ALL OTHER STREET LIGHTS TO BE USED OUTSIDE THE DOWNTOWN SPECIFIC PLAN AREA SHALL CONFORM TO CITY STANDARD DRAWING E-1.
2. FOOTING SHALL BE 24" DIAMETER BY 3' DEEP CONCRETE. TOP OF FOOTING SHALL BE FLUSH WITH SIDEWALK.
3. ACCESS DOOR SECURED TO BASE WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS.
4. ACCESS DOOR SHALL BE POSITIONED AWAY FROM STREET.
5. BOLTS SHALL BE 5/8" x 18" x 3" GALVANIZED STREET LIGHT BOLTS WITH 11" BOLT CIRCLE
6. POLE SHALL ADHERE TO SHAKESPEARE CS - CORAL GABLES 12' FLAT BLACK SPEC ANCHOR PLACE AND TENON. SPECIFICATION NO: ACG20-12AF1103
7. LED SHALL ADHERE TO LIGHT EFFICIENT DESIGN STANDARDS FOR LED-8029
8. GLOBE AND ASSEMBLY SHALL BE ELA COMPANY INC. GLOBE AND ASSEMBLY SHALL BE AN ACORN GLOBE WITH 9" OPENING, MEDIUM BASE PORCELAIN SOCKET WITH 1.5" x 1/8-27#4066, 120V BUTTON PHOTOCCELL, CAST BALLAST HOUSING FITTER INCANDESCENT, MEDIUM BASE, ACRYLIC DIFFUSER AND STIPPLED. GLOBE ASSEMBLY TO BE APPROVED BY CITY OF NAPA STAFF.

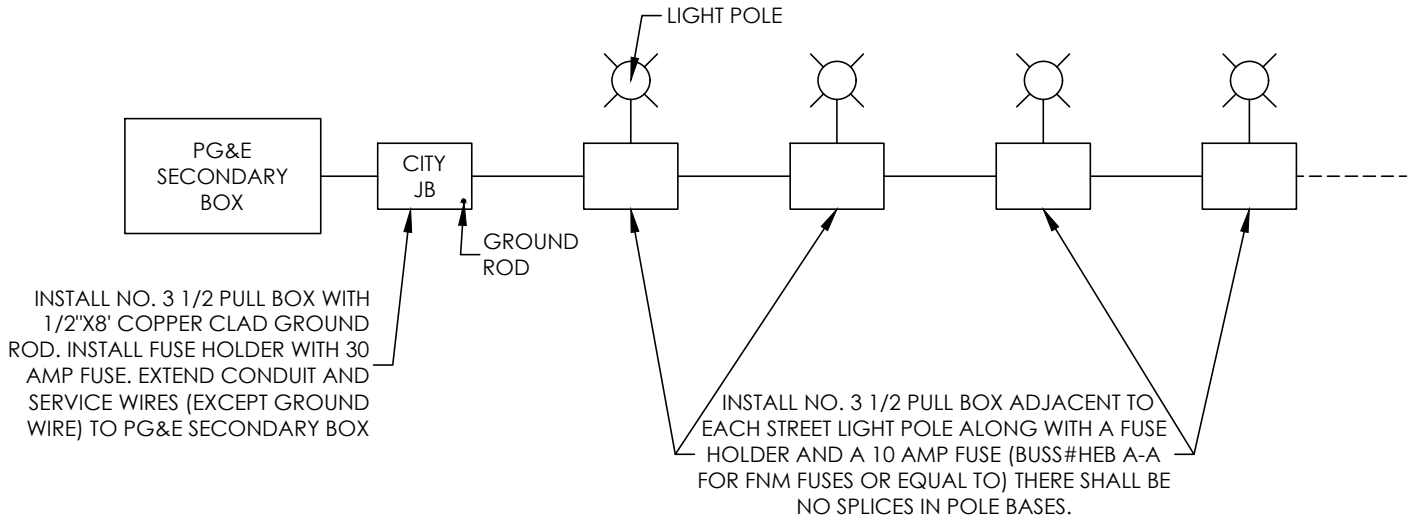
CITY OF NAPA

PUBLIC WORKS DEPARTMENT

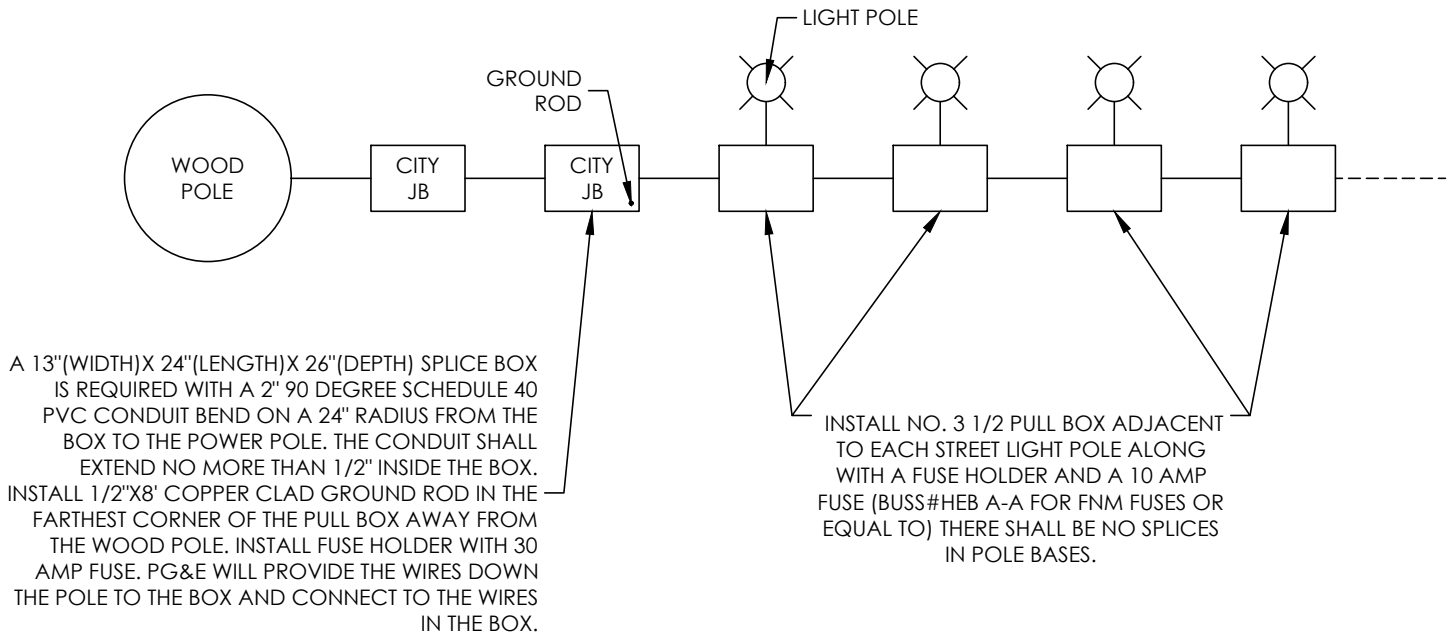
ORNAMENTAL STREET LIGHT - DOWNTOWN  
SPECIFIC PLAN

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SECONDARY BOX SERVICE INSTALLATION



WOOD POLE SERVICE INSTALLATION

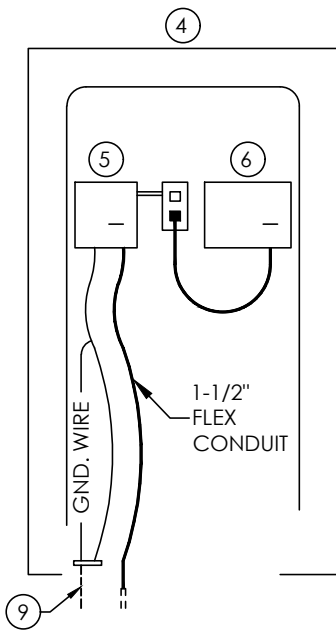
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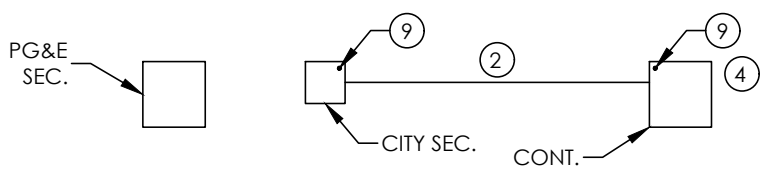
SECONDARY BOX AND WOOD POLE SERVICE INSTALLATIONS

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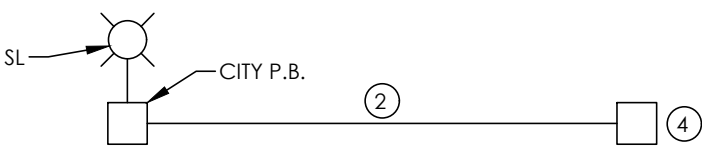


TYPICAL PG&E SECONDARY SERVICE



INSTALL NO. 3-1/2 PULL BOX WITH 1/2" X 8' COPPER CLAD GROUND ROD. INSTALL FUSE HOLDER WITH 10 AMP FUSE. EXTEND CONDUIT AND SERVICE WIRES (EXCEPT GROUND WIRE) TO PG&E SECONDARY BOX.

TYPICAL STREET LIGHT SERVICE



INSTALL FUSE HOLDER WITH 10 AMP FUSE IN EXISTING STREET LIGHT PULL BOX.

NOTES

1. SPRINKLER CONTROLLER SERVICE LOCATIONS SHALL BE ESTABLISHED PRIOR TO CONSTRUCTION.
2. ELECTRICAL SERVICE CONDUIT SIZE SHALL BE 1-1/2" SCHEDULE 40 18" DEEP.
3. CONDUCTORS SHALL BE MINIMUM NO. 10 (ONE WHITE, ONE RED) PULLED WITH A NUMBER 10 BARE COPPER BOND WIRE. BOND WIRE SHALL CONNECT TO ALL CONTROLLERS AND GROUND RODS IN THE SYSTEM.
4. CONTROLLER CABINETS SHALL BE INSTALLED PER CITY OF NAPA SPECIFICATIONS.
5. INSTALL 6"X6"X4" LANDING CAN WITH GROUND BUS. INSTALL #8 ARMORED GROUND CABLE FROM GROUND BUS TO CABINET FOUNDATION BOLT. INSTALL 1/2" OFFSET NIPPLE FROM LANDING CAN TO ONE SINGLE GANG HANDY BOX. INSTALL ONE GFCI DUPLEX RECEPTACLE INTO HANDY BOX.
6. INSTALL 14/3 SJO CORD WITH STRAIN RELIEF FROM SPRINKLER CONTROLLER BOX. INSTALL 90 DEGREE CORD CAP ON OTHER END OF SJO CORD AND PLUG INTO GFCI RECEPTACLE.
7. CONTACT CITY OF NAPA ELECTRICAL DIVISION PRIOR TO BACKFILLING ANY ELECTRICAL CONDUIT TRENCHES.
8. CONTACT CITY OF NAPA ELECTRICAL DIVISION FOR ELECTRICAL SERVICE LOCATIONS AND PRIOR TO STARTING ELECTRICAL WORK (707) 257-9588.
9. INSTALL 1/2"X8' COPPER CLAD GROUND ROD.

CITY OF NAPA

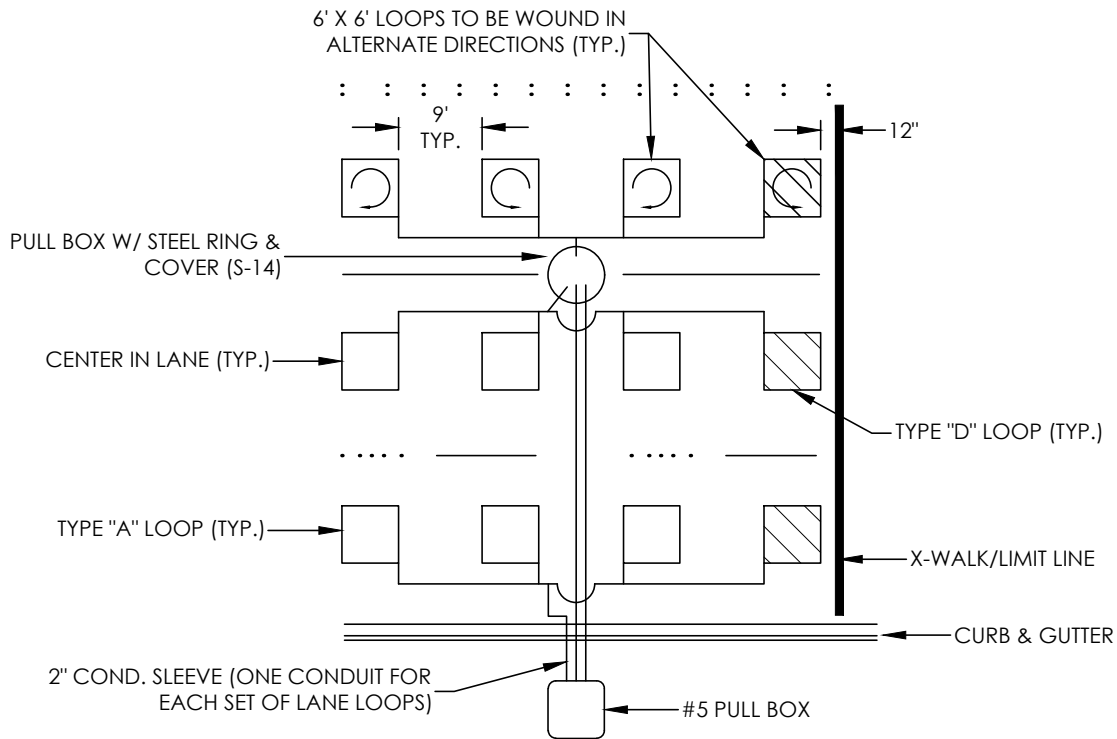
PUBLIC WORKS DEPARTMENT

**ELECTRICAL SERVICE SPECIFICATIONS FOR SPRINKLER CONTROLLERS**

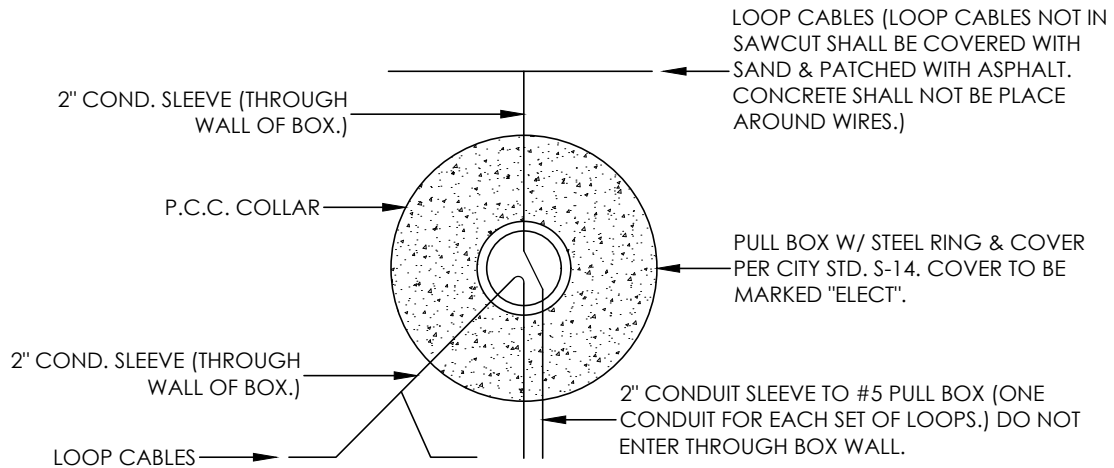
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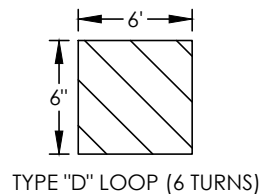
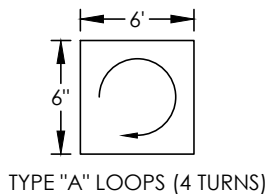




PULL BOX & LOOPS INSTALLATION



PULL BOX WITH STEEL RING & COVER



TYPE "A" & "D" LOOPS

CITY OF NAPA

PUBLIC WORKS DEPARTMENT

INDUCTIVE LOOPS FOR  
TRAFFIC SIGNALS

DRAWN BY: BRL  
DATE: 06/2018  
SCALE: NONE  
FIELD NOTES:

CHECKED BY: SEC  
APPROVED BY: JRL  
DRAWING NO. E-9