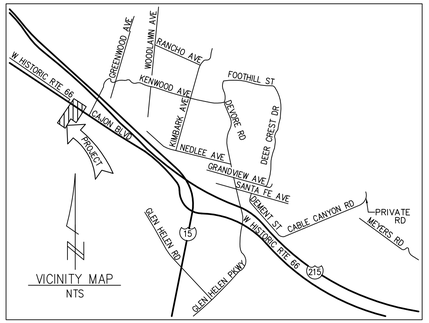
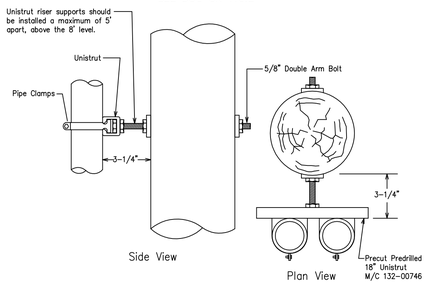
BLUE CUT 12KV
TD1679153
12-31-25
RAIL ROAD



RISER INSTALLATION USING UNISTRUT
SEE DUG CR 110.2



CONVENTIONAL RISER INSTALLATION
NOT TO SCALE

NOTE(S):
1. All notes pertaining to Figure CR 110-1.1 (Sheet 1) construction on scope CR 110.1 also apply to risers supported by a unistrut.

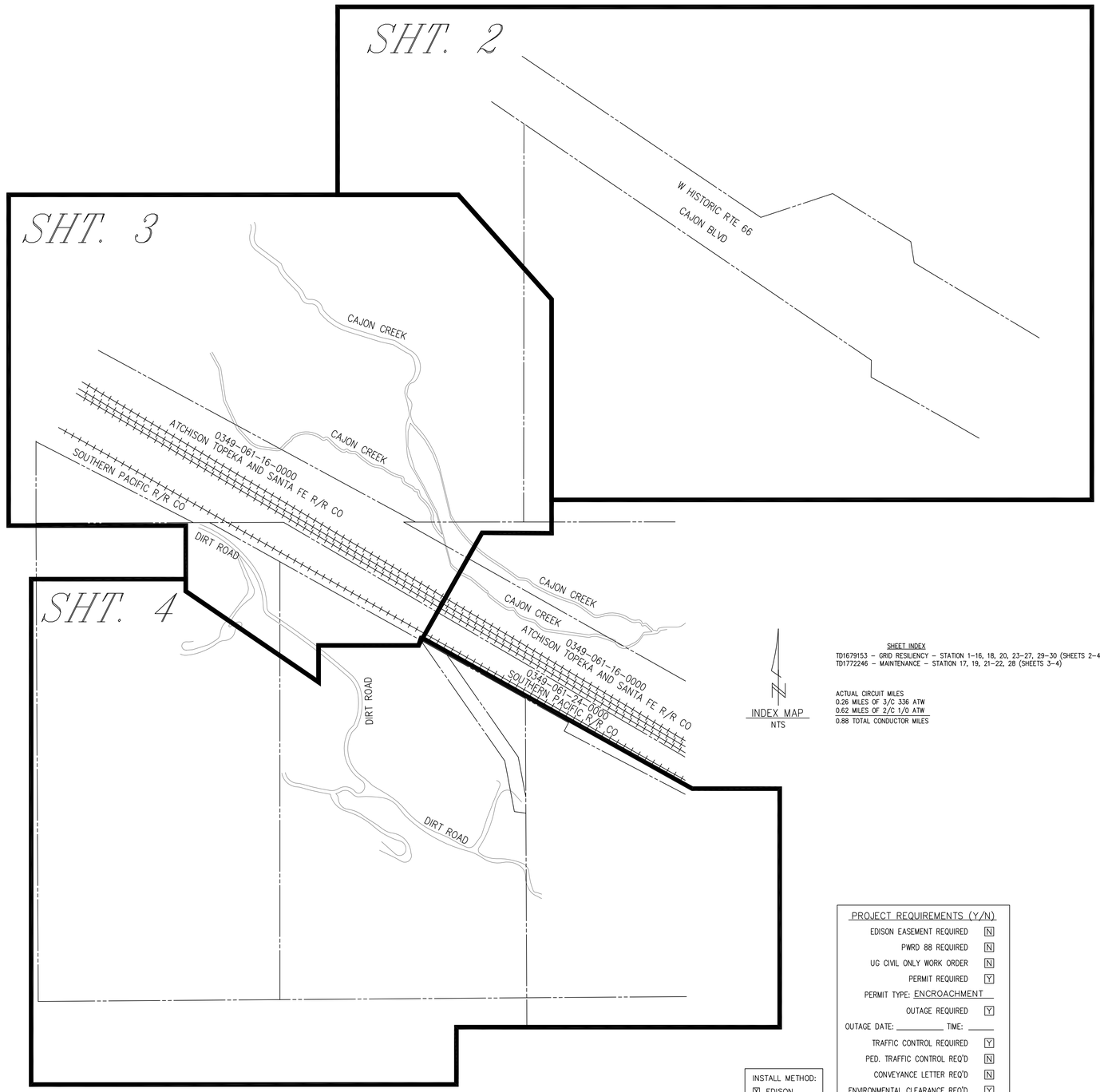
1.0 APPLICATION
The unistrut shown in Figure CR 110-5 (Sheet 3) is the preferred method where multiple risers are required.

2.0 MATERIAL

TABLE CR 110-2: Unistrut Pipe Clamps

Conduit Size (in)	Material Code
1	622-04052
2	133-48248
2.5	133-48214
3	133-00025
4	133-00017
5	133-48008
6	132-00746

REF.: DUG CR 110.2
D38: REV. 02/18/11



INDEX MAP
NTS

SHEET INDEX
TD1679153 – GRID RESILIENCY – STATION 1-16, 18, 20, 23-27, 29-30 (SHEETS 2-4)
TD1772246 – MAINTENANCE – STATION 17, 19, 21-22, 28 (SHEETS 3-4)

ACTUAL CIRCUIT MILES
0.26 MILES OF 3/C 336 ATW
0.62 MILES OF 2/C 1/0 ATW
0.88 TOTAL CONDUCTOR MILES

INSTALL METHOD:
☒ EDISON
☐ APPLICANT

PROJECT REQUIREMENTS (Y/N)

EDISON EASEMENT REQUIRED	N
PWRD 88 REQUIRED	N
UG CIVIL ONLY WORK ORDER	N
PERMIT REQUIRED	Y
PERMIT TYPE: ENCROACHMENT	
OUTAGE REQUIRED	Y
OUTAGE DATE: _____ TIME: _____	
TRAFFIC CONTROL REQUIRED	Y
PED. TRAFFIC CONTROL REQ'D	N
CONVEYANCE LETTER REQ'D	N
ENVIRONMENTAL CLEARANCE REQ'D	Y
CSD 140 (TLM) REQ'D	N

D124: Rev. 02/08/18

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THOMAS GUIDE
SBD. 514-J4
SBD. 515-A4

INVENTORY MAP NO.
S.B.C. 268-2166-2
S.B.C. 272-2166-2

FINAL DESIGN
APPROVED FOR CONSTRUCTION

DATE	REVISION DESCRIPTION	APPROVED	DRAWN	CHECKED

DISTRICT: 30-FOOTHILL
PROJ. MGR.: DIYANA NYEIN SIEM, PHONE 714-796-9969
PLANNER: JAN MONTIERRO, PHONE 909-274-3945
SR NO.: 2819491
FOREMAN:
TRUCK NO.: P/E:
INVENTORY MAP NO.: SEE ABOVE
THOMAS GUIDE: SEE ABOVE
GRID NO.:
DESIGN NO.: 1257956
CSD 140 Y____ N____
BY-PASS CODE
EXISTING _____ CHANGE TO _____
TLM CHECKED _____ %LOAD
J.P.A. NO.:
ASSOCIATED DESIGN NO.:
PRODUCT/SAP NO.: TD1679153-GRID RESILIENCY
PRODUCT/SAP NO.: TD1772246-MAINTENANCE
PRODUCT/SAP NO.:

PROPOSED CONSTRUCTION (LOCATION)
BLUE CUT 12kV & VERDEMONT 33kV
CAJON BLVD & KENWOOD AVE
SAN BERNARDINO

TYPE	APPROVED BY	DATE	CHECKED BY	DRAWN BY	PAX #
F		11/18/20	ML	JJM	
P		11/16/20	ML	JJM	
B		05/13/20	RW/UDS/NM	SVG/UDS	

SHEET 1 OF 4
JOB NO.: 1257956_0.01

Southern California Edison Company

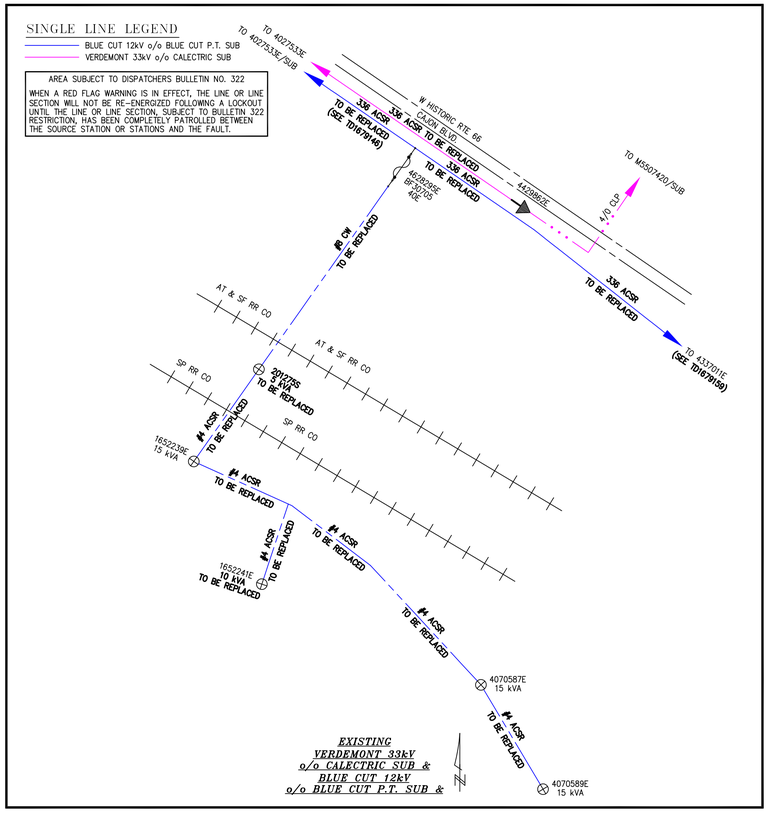
SINGLE LINE LEGEND

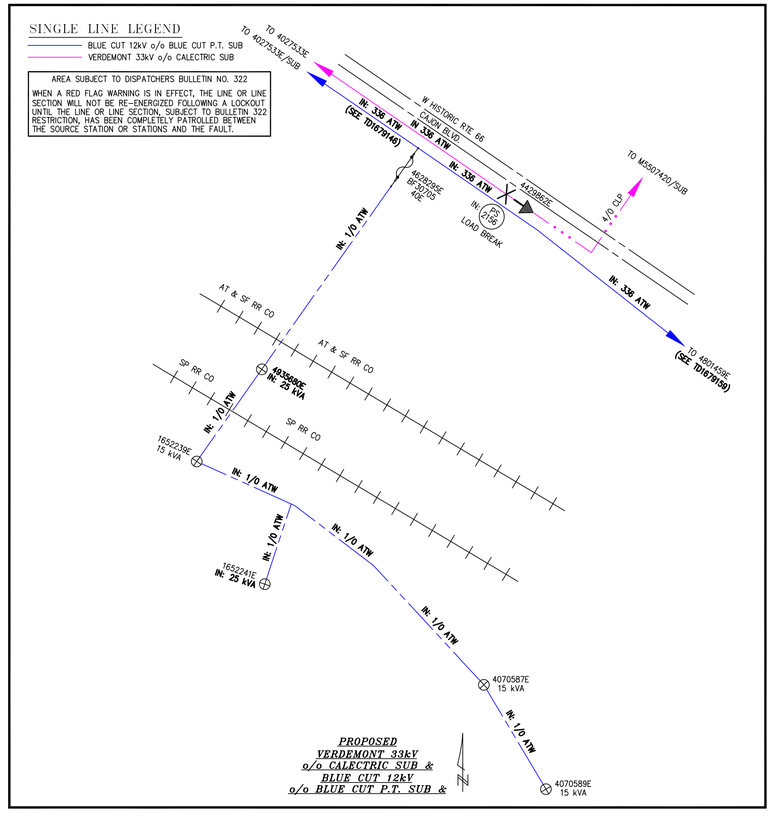
BLUE CUT 12kV o/o BLUE CUT P.T. SUB

VERDEMONT 33kV o/o CALECTRIC SUB

AREA SUBJECT TO DISPATCHERS BULLETIN NO. 322

WHEN A RED FLAG WARNING IS IN EFFECT, THE LINE OR LINE SECTION WILL NOT BE RE-ENERGIZED FOLLOWING A LOCKOUT UNTIL THE LINE OR LINE SECTION, SUBJECT TO BULLETIN 322 RESTRICTION, HAS BEEN COMPLETELY PATROLLED BETWEEN THE SOURCE STATION OR STATIONS AND THE FAULT.





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INVENTORY MAP NO.
S.B.C. 268-2166-2
S.B.C. 272-2166-2

FINAL DESIGN
APPROVED FOR CONSTRUCTION

DATE	REVISION DESCRIPTION	APPROVED	DRAWN	CHECKED

DISTRICT 30-FOOTHILL		PROJ. MGR. DIYANA NYEIN SIEM PHONE 714-796-9969		PLANNER JAN MONTIERRO PHONE 909-274-3945		SR NO. 2819491
FOREMAN		TRUCK NO.	P/E	INVENTORY MAP NO. SEE ABOVE	THOMAS GUIDE SEE ABOVE GRID NO.	DESIGN NO. 1257956
CSD 140 Y ___ N ___	BY-PASS CODE	EXISTING ___ CHANGE TO ___		TLM CHECKED ___ %LOAD	U.P.A. NO.	ASSOCIATED DESIGN NO.
PRODUCT/SAP NO. TD1679153-GRID RESILIENCY		PRODUCT/SAP NO. TD1772246-MAINTENANCE				PRODUCT/SAP NO.
						PROPOSED CONSTRUCTION (LOCATION) BLUE CUT 12kV & VERDEMONT 33kV CAJON BLVD & KENWOOD AVE SAN BERNARDINO
F		11/18/20	ML	JJM		
P		11/16/20	ML	JJM		
B		05/13/20	RW/UDS/NM	SVG/UDS		SHEET 1A OF 4
TYPE	APPROVED BY	DATE	CHECKED BY	DRAWN BY	PAX #	JOB NO. 1257956_0.01

Southern California Edison Company

NOTE FOR 201271S
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,386'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 7'–9".
- REMOVE 1–9/32" PRI. DG AND REPLACE WITH 1–9/32" PRI. D.G. AT 32'–6" AND ATTACHED TO EXIST. 2 EYE ANCHOR.
- PLEASE EXPOSE ENTIRE EYE OF THE ROD TO A MIN. OF 9" AND A MAX. OF 18" ABOVE FINISHED GRADE MEASURED ALONG THE ROD PER DOH PO 350.
- JPA CORRECTION. FTR TO BUY INTEREST TO 3/4" 2–EYE ANCHOR NORTHEAST.

TD1679153–GRID RESILIENCY **EXTREME**

8 EXISTING 201271S

40' Class C5

RM: 536– CD #8 STR COPPERWELD (TO 1272S)
RM: 1– XA DBLE FB 10' STEEL PINS
RM: 6– INS GLASS/POLY 35KV & LESS
RM: 1– AG DOWN GUY 9/32" – 50' LESS THAN 22.5KV
IN: 536– 1/0 ATW XLHDPE INS CABLE 17kV (TO 1272S)
IN: 4– DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2– INS POLY PIN 12KV VRT VICE NYLON
IN: 4– INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 4– KADDAS WILDLIFE CVD CND DEAD END COVER
IN: 1– XA ~~SNGL~~ DE HD COMP 10' W/BKT DBL
IN: 1– AG DOWN GUY 9/32"–50' W/2–FGSI ALL KV

PER NOTIFICATION 904
INSTALL HIGH SIGNS

NOTE FOR 4628295E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,383'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- VERDEMONT–33kV RULING SPAN RULING SPAN 336 ATW PRI. SAG @ 6'–1".
- BLUE CUT–12kV RULING SPAN RULING SPAN 336 ATW PRI. SAG @ 5'–3".
- ATTACHED BLUE CUT CROSS ARM AT 35'–6".
- ATTACHED BUCK ARM AT 31'–6".

BREAST BLOCK & POLE KEY CALCULATION
50'–H1 DF–TB FOR 12 LBS = 59,445 FT/LBS
POLE–KEY RESISTING MOMENT = 55,125 FT/LBS
2/C 1/0 ATW (SLACK) = 3,634 FT/LBS
4628295E PASSED EX. BREAST BLOCK & POLE KEY

TD1679153–GRID RESILIENCY **EXTREME**

EXISTING 4628295E 7

50' Class H1

RM: 146– CD #4 STR AL BARE ACSR NON–GREASED (TO 1271S)
RM: 10– INS GLASS/POLY 35KV & LESS
RM: 2– COVER, WILDLIFE, 1 PIECE
RM: 2– XA SNGL VB 10' STEEL PINS
RM: 1– XA DBLE FB 10' STEEL PINS
TR: 2– FE FH SMU20 17" BLF 200A 12KV 1P
IN: 146– 1/0 ATW XLHDPE INS CABLE 17kV (TO 1271S)
IN: 12– DAMPER, VIBRATION, 35KV 336 (18/1) ATW
IN: 12– DAMPER, VIBRATION, 17KV 336 (18/1) ATW
IN: 2– DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 6– INS POLY PIN 33KV VRT VICE NYLON
IN: 6– INS POLY DE 33KV HOT SHOE 336 ACSR
IN: 7– INS POLY PIN 12KV VRT VICE NYLON
IN: 6– INS POLY DE 12KV HOT SHOE 336 ACSR
IN: 12– KADDAS WILDLIFE CVD CND DEAD END COVER
IN: 2– XA DBL HD DE COMP 10'
IN: 2– INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 1– XA SNGL DE HD COMP 10' W/BKT
IN: ~~1~~ 2 SA HFA POLY W/GND NO PRI–N 12KV 1P
TR: 2– FE FH SMU20 17" BLF 200A 12KV 1P

USA REQUIRED TO CALL IN

PER NOTIFICATION 904
INSTALL VIS STRIPS

INSTALL TRANSMISSION CROSSING VIS STRIP X BELOW TOP ARM FACING AWAY FROM TRANS POLE 3 POLES OUT FROM TRANSMISSION CROSSING

REPLACE GREY CUTOUT COVERS TO PINNED STYLE COVERS

NOTE FOR 2067710E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,381'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- VERDEMONT–33kV RULING SPAN RULING SPAN 336 ATW PRI. SAG @ 6'–1" (TO 8295E). RULING SPAN 336 ATW PRI. SAG @ 1'–5" (TO 7710E).
- BLUE CUT–12kV RULING SPAN RULING SPAN 336 ATW PRI. SAG @ 5'–3" (TO 8295E). RULING SPAN 336 ATW PRI. SAG @ 1'–4" (TO 7710E).
- ATTACHED BLUE CUT CROSS ARM AT 35'.

TD1679153–GRID RESILIENCY **EXTREME**

EXISTING 2067710E 6

50' Class C2

RM: 834– CD 336 STR AL BARE ACSR NON–GREASED (TO 8295E)
RM: 834– CD 336 STR AL BARE ACSR NON–GREASED (TO 8295E)
RM: 3– INS GLASS/POLY 35KV & LESS
RM: 2– COVER, WILDLIFE, 1 PIECE
RM: 2– XA SNGL VB 10' STEEL PINS
IN: 834– 336 ATW XLHDPE INS CABLE 35kV (TO 8295E)
IN: 834– 336 ATW XLHDPE INS CABLE 17kV (TO 8295E)
IN: 6– INS POLY PIN 33KV VRT VICE NYLON
IN: 6– INS POLY DE 33KV HOT SHOE 336 ACSR
IN: 6– INS POLY PIN 12KV VRT VICE NYLON
IN: 6– INS POLY DE 12KV HOT SHOE 336 ACSR
IN: 12– KADDAS WILDLIFE CVD CND DEAD END COVER
IN: 2– XA DBL HD DE COMP 10'

INSTALL TRANSMISSION CROSSING VIS STRIP X BELOW TOP ARM FACING AWAY FROM TRANS POLE 3 POLES OUT FROM TRANSMISSION CROSSING

NOTE FOR 2067709E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,376'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 336 ATW PRI. SAG @ 7'–0" (TO 7708E).
- RULING SPAN 336 ATW PRI. SAG @ 2'–4" (TO 9862E).
- REMOVE 1–3/8" SEC. DG AND REPLACE WITH 1–3/8" D.G. AT 40' AND ATTACHED TO PROP. 3 EYE ANCHOR.
- REMOVE 3–EYE BURIED ANCHOR AT 18' LEAD AND REPLACE WITH 3–EYE ANCHOR AT THE SAME LOCATION.

TD1679153–GRID RESILIENCY **EXTREME**

EXISTING 2067709E 3

50' Class C3

RM: 426– CD 336 STR AL BARE ACSR NON–GREASED (TO 9862E)
RM: 1– XA SNGL VB 10' STEEL PINS
RM: 3– INS GLASS/POLY 35KV & LESS
RM: 1– COVER, WILDLIFE, 1 PIECE
RM: 1– AG DOWN GUY 3/8" – 50' LESS THAN 22.5KV
RM: 1– AG ANCHOR ROD 1 " X 10' 3–EYE W/PLATE
IN: 426– 336 ATW XLHDPE INS CABLE 17kV (TO 9862E)
IN: 12– DAMPER, VIBRATION, 17KV 336 (18/1) ATW
IN: 6– INS POLY DE 12KV HOT SHOE 336 ACSR
IN: 6– KADDAS WILDLIFE CVD CND DEAD END COVER
IN: 6– INS POLY PIN 12KV VRT VICE NYLON
IN: 1– XA DBL HD DE COMP 10'
IN: 1– AG DOWN GUY 3/8"–50' W/1–FGSI ALL KV
IN: 1– AG ANCHOR ROD 1 " X 10' 3–EYE W/PLATE

INSTALL TRANSMISSION CROSSING VIS STRIP X BELOW TOP ARM FACING AWAY FROM TRANS POLE 3 POLES OUT FROM TRANSMISSION CROSSING

TD1679153–GRID RESILIENCY **EXTREME**

4 RM 4429862E

50' Class C3

RM: 1– POLE 50' CLASS 3 WOOD FULL TREAT
RM: 192– CD 336 STR AL BARE ACSR NON–GREASED (TO 7710E)
RM: 192– CD 336 STR AL BARE ACSR NON–GREASED (TO 7710E)
RM: 12– INS GLASS/POLY 35KV & LESS
RM: 1– COVER, WILDLIFE, 1 PIECE
RM: 1– XA TRPL VB 10' STEEL PIN D/A BRKT
RM: 1– XA DBLE VB 10' STEEL PINS
RM: 2– AG DOWN GUY 3/8" – 50' LESS THAN 22.5KV
TR: 1– PH CS 2–10' XA 34.5KV 3P 3–4/0
TR: 1– SA POLY W/GND NO PRI–N 33KV 3P
TR: 1– RSR 6" 34.5KV ON KICK BLOCK EXTENSION

USA REQUIRED TO CALL IN

TD1679153–GRID RESILIENCY **EXTREME**

5 POLE 4429862E

60' Class C1

IN: 1– POLE 60' CL 1 RS COMP SEC W 25' SHIELD
IN: 6– STRIP, 2" X 12" SIZE, VISIBILITY KIND
IN: 192– 336 ATW XLHDPE INS CABLE 35kV (TO 7710E)
IN: 6– DAMPER, VIBRATION, 35KV 336 (18/1) ATW
IN: 192– 336 ATW XLHDPE INS CABLE 17kV (TO 7710E)
IN: 12– DAMPER, VIBRATION, 17KV 336 (18/1) ATW
IN: 1– SW ALDUTI HZ–I DE 600A 33KV 3W PS–2156
SN:
IN: 3– 336 COMPRESSION CONNECTOR
IN: 3– INS POLY PIN 33KV VRT VICE NYLON
IN: 3– HUGHES BRACKET FOR ALDUTI SW
IN: 2– XA DBL HD DE COMP 10'
IN: 3– INS POLY DE 33KV HOT SHOE 336 ACSR
IN: 1– XA SNGL DE HD COMP 10' W/BKT
IN: 6– INS POLY DE 12KV HOT SHOE 336 ACSR
IN: 9– KADDAS WILDLIFE CVD CND DEAD END COVER
IN: 6– INS POLY PIN 12KV VRT VICE NYLON
IN: 2– AG DOWN GUY 7/16"–50' W/1–FGSI ALL KV
IN: 1– RISER SUPPORT KIT FOR CMP LWS WD POLES
TR: 1– PH CS 2–10' XA 34.5KV 3P 3–4/0
TR: 1– SA POLY W/GND NO PRI–N 33KV 3P
TR: 1– RSR 6" 34.5KV ON KICK BLOCK EXTENSION

NOTE FOR 4429862E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,379'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- SAME HOLE SET.
- E–ALL POLE.
- RULING SPAN 336 ATW PRI. SAG @ 2'–4" (TO 7709E).
- RULING SPAN 336 ATW PRI. SAG @ 1'–5" (TO 7710E).
- REMOVE 2–3/8" SEC. DG AND REPLACE WITH 2–7/16" D.G. AT 50'6" & 49'6". ATTACHED TO PROP. 3 EYE ANCHOR.
- SEE SPIDA OR DAP AP 338–2 FOR 38kV ALDUTI–RUPTER HORIZONTAL INVERTED CONFIGURATION FOR 33kV RISER APPLICATIONS.

INSTALL SWITCH PLACARD PS 2156

E ALL POLE

IN–6- COVERED JUMPERS
IN–6- COMPRESSION PADDLES

INSTALL RISER WARNING STICKER

INSTALL AQUA SEAL ON COMPRESSION SLEEVES AND TAPE UP WITH 33 TAPE

REPLACE GREY CLAMP COVERS TO HOTSTICK STYLE POTHEAD COVERS AND LA BRACKET RAPTOR COVERS

#IN–3- HFA 33kV LA'S

INSTALL TRANSMISSION CROSSING VIS STRIP X BELOW TOP ARM FACING AWAY FROM TRANS POLE 3 POLES OUT FROM TRANSMISSION CROSSING

TD1679153–GRID RESILIENCY **EXTREME**

2 EXISTING 2067708E

50' Class C1

RM: 777– CD 336 STR AL BARE ACSR NON–GREASED (TO 7709E)
RM: 1– XA SNGL VB 10' STEEL PINS
RM: 3– INS GLASS/POLY 35KV & LESS
RM: 1– COVER, WILDLIFE, 1 PIECE
IN: 777– 336 ATW XLHDPE INS CABLE 17kV (TO 7709E)
IN: 6– DAMPER, VIBRATION, 17KV 336 (18/1) ATW
IN: 1– XA SNGL TAN HD COMP 10' W/BKT
IN: 3– INS POLY PIN 12KV VRT VICE NYLON

NOTE FOR 2067708E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,370'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 336 ATW PRI. SAG @ 7'–0"

INSTALL TRANSMISSION CROSSING VIS STRIP X BELOW TOP ARM FACING AWAY FROM TRANS POLE 3 POLES OUT FROM TRANSMISSION CROSSING

TD1679153–GRID RESILIENCY **EXTREME**

1 EXISTING 4132564E

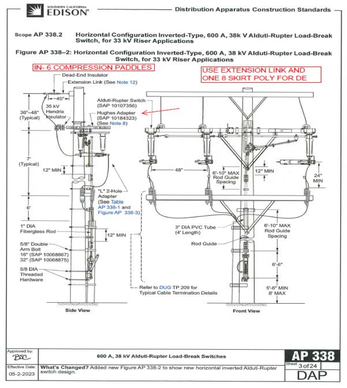
Class H1

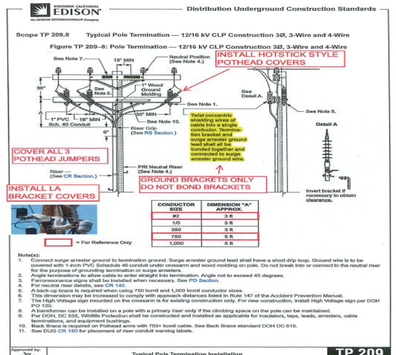
RM: 840– CD 336 STR AL BARE ACSR NON–GREASED (TO 7708E)
RM: 1– XA SNGL VB 10' STEEL PINS
RM: 3– INS GLASS/POLY 35KV & LESS
RM: 1– COVER, WILDLIFE, 1 PIECE
RM: 1– AG ANCHOR ROD 1 " X 10' 3–EYE W/PLATE
IN: 840– 336 ATW XLHDPE INS CABLE 17kV (TO 7708E)
IN: 6– DAMPER, VIBRATION, 17KV 336 (18/1) ATW
IN: 1– XA SNGL TAN HD COMP 10' W/BKT
IN: 3– INS POLY PIN 12KV VRT VICE NYLON

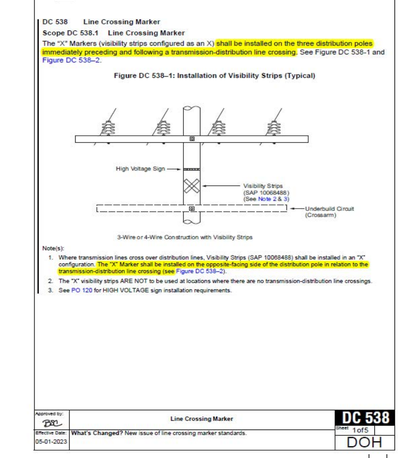
NOTE FOR 4132564E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,370'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 336 ATW PRI. SAG @ 7'–0"

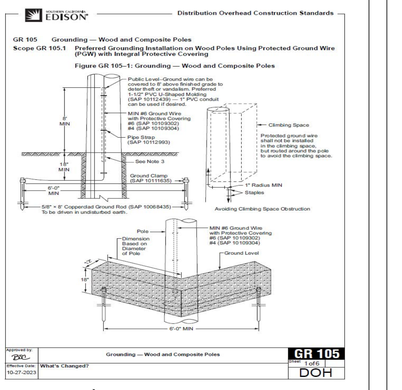
INSTALL TRANSMISSION CROSSING VIS STRIP X BELOW TOP ARM FACING AWAY FROM TRANS POLE 3 POLES OUT FROM TRANSMISSION CROSSING

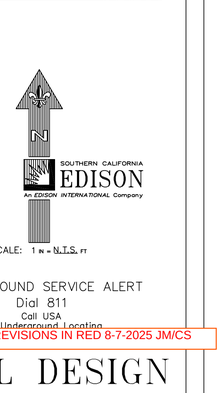
GROUND ROD INSTALLATION REQUIREMENTS
- ALL GROUND RODS MUST BE A MINIUMUM OF 18" BELOW GRADE WITH A PHOTO SHOWING THE DEPTH USING A TAPE
- ALL GROUND ROD CLAMPS MUST BE A MINIMUM OF 6" FROM THE TOP OF THE ROD
- ALL RODS MUST BE LAID OUT ON THE GROUND AND MEASURED PRIOR TO INSTALLATION TO DETERMINE IF IT IS A 5/8" 8' OR ¾" 10' ROD
- IF YOU ARE INSTALLING 5/8 RODS AT 6' APART YOU MUST HAVE A PHOTO OF THE MINIMUM 6' SEPERATION WITH A TAPE
- IF YOU ARE INSTALLING ¾" RODS AT A MINIMUM 2' SEPERATION DRIVEN AT A 30 DEGREE ANGLE YOU MUST HAVE A MEASUREMENT OF THE MINIMUM 2' SEPERATION AT THE HEAD AND SHOW A PHOTO DURING INSTALLATION THAT THEY ARE BEING DRIVEN AT AN ANGLE.











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SBD. 515–A4

INVENTORY MAP NO.
S.B.C. 268–2166–2
S.B.C. 272–2166–2

ASPLUNDH MAP REVISIONS IN RED 8-7-2025 JM/CS

FINAL DESIGN
APPROVED FOR CONSTRUCTION

DATE	REVISION DESCRIPTION	APPROVED	DRAWN	CHECKED

DISTRICT 30–FOOTHILL | PROJ. MGR. DIYANA NYEIN SIEM PHONE 714–796–9969 | PLANNER JAN MONTIERRO PHONE 909–274–3945 | SR NO. 2819491

FOREMAN | TRUCK NO. | P/E | INVENTORY MAP NO. SEE ABOVE | THOMAS GUIDE SEE ABOVE | GRID NO. | DESIGN NO. 1257956

CSD 140 Y ___ N ___ | BY–PASS CODE | EXISTING CHANGE TO | TLM CHECKED | J.P.A. NO. | ASSOCIATED DESIGN NO.

PRODUCT/SAP NO. TD1679153–GRID RESILIENCY | PRODUCT/SAP NO. TD1772246–MAINTENANCE | PRODUCT/SAP NO.

TYPE	APPROVED BY	DATE	CHECKED BY	DRAWN BY	PAX #
F		11/18/20	ML	JJM	
P		11/16/20	ML	JJM	
B		05/13/20	RW/UDS/NM	SVG/UDS	

PROPOSED CONSTRUCTION (LOCATION)
BLUE CUT 12kV & VERDEMONT 33kV
CAJON BLVD & KENWOOD AVE
SAN BERNARDINO

Southern California Edison Company

SHEET 2 OF 4 | JOB NO. 1257956_0.01

GROUND ROD INSTALLATION REQUIREMENTS

- ALL GROUND RODS MUST BE A MINIUMUM OF 18" BELOW GRADE WITH A PHOTO SHOWING THE DEPTH USING A TAPE
- ALL GROUND ROD CLAMPS MUST BE A MINIMUM OF 6" FROM THE TOP OF THE ROD
- ALL RODS MUST BE LAID OUT ON THE GROUND AND MEASURED PRIOR TO INSTALLATION TO DETERMINE IF IT IS A 5/8" 8' OR ¾" 10' ROD
- IF YOU ARE INSTALLING 5/8 RODS AT 6' APART YOU MUST HAVE A PHOTO OF THE MINIMUM 6' SEPERATION WITH A TAPE
- IF YOU ARE INSTALLING ¾" RODS AT A MINIMUM 2' SEPERATION DRIVEN AT A 30 DEGREE ANGLE YOU MUST HAVE A MEASUREMENT OF THE MINIMUM 2' SEPERATION AT THE HEAD AND SHOW A PHOTO DURING INSTALLATION THAT THEY ARE BEING DRIVEN AT AN ANGLE.

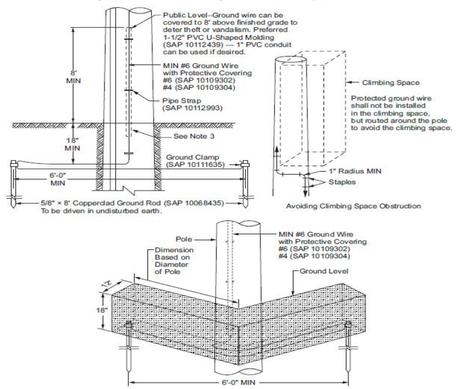
SOUTHERN CALIFORNIA EDISON

Distribution Overhead Construction Standards

GR 105 Grounding — Wood and Composite Poles

Scope GR 105.1 Preferred Grounding Installation on Wood Poles Using Protected Ground Wire (PGW) with Integral Protective Covering

Figure GR 105–1: Grounding — Wood and Composite Poles



Approved by:	Grounding — Wood and Composite Poles	GR 105
Effective Date: 10-27-2023	What's Changed?	Sheet 1 of 6
		DOH

APN: 0349-061-03-0000

9 — TD1679153-GRID RESILIENCY EXISTING — EXTREME 201272S — Class CS
40'
RM: 484– CD #8 STR COPPERWELD (TO 0689)
RM: 2– INS GLASS/POLY 35KV & LESS
RM: 1– AG DOWN GUY 9/32" – 50' LESS THAN 22.5KV
IN: 484– 1/0 ATW XLHDPE INS CABLE 17kV (TO 5678E)
IN: 2– DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2– INS POLY PIN 12KV ANG VICE NYLON
IN: 1– AG DOWN GUY 9/32"–50' W/1–FGSI ALL KV

ARMS DONE BY OTHERS

NOTE FOR 201272S
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,391'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 7'–9".
- REMOVE 1–9/32" PRI. DG AND REPLACE WITH 1–9/32" PRI. D.G. AT 32'–6" AND ATTACHED TO EXIST. 3 EYE ANCHOR.
- JPA CORRECTIONS TO 1" 3–EYE ANCHOR.

MATCH LINE 'A' SEE SHEET 2

RM: 242' 2/C #6 CSK–12KV
IN: 242' 2/C 1/0 ATW–12KV

10 — TD1679153–GRID RESILIENCY RM — EXTREME GT130689 — Class C4
35'
RM: 1– POLE 35' CLASS 4 WOOD FULL TREAT
RM: 484– CD #8 STR COPPERWELD (TO 1415)
RM: 2– INS GLASS/POLY 35KV & LESS
RM: 1– XA SNGL FB 10' STEEL PINS

USA REQUIRED TO CALL IN

11 — TD1679153–GRID RESILIENCY POLE — EXTREME 4935678E — Class C1
45'
IN: 1– POLE 45' CL 1 CMP SEC POLE W 18' SHLD
IN: 484– 1/0 ATW XLHDPE INS CABLE 17kV
IN: 2– DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2– INS POLY PIN 12KV VRT VICE NYLON
IN: 1– XA SNGL TAN HD COMP 10' W/BKT

SIMPLE TRANSFER

NOTE FOR GT130689/4935678E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,386'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 7'–9".
- HARDSET SOUTHWEST.
- SCE TO PTD.
- TRANSFER FTR JOINT OWNER

ARMS DONE BY OTHERS WITH IDLE DEAD END BELLS HANGING FROM THEM

PER NOTIFICATION 904 DOWNGUYS HANGING OFF POLE

14 — TD1679153–GRID RESILIENCY EXISTING — EXTREME 4886481E — Class C4
45'
RM: 230– CD #8 STR COPPERWELD (TO 1275S)
RM: 4– INS GLASS/POLY 35KV & LESS
RM: 1– AG SPAN GUY 9/32" – 200'
RM: 3– AG DOWN GUY 3/8" – 50' LESS THAN 22.5KV
RM: 2– AG ANCHOR ROD 3/4" X 8' 2–EYE W/PLATE
IN: 230– 1/0 ATW XLHDPE INS CABLE 17kV (TO 1275S)
IN: 4– DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 4– INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 4– KADDAS WILDLIFE CVD CND DEAD END COVER
IN: 2– AG DOWN GUY 3/8"–50' W/1–FGSI ALL KV
IN: 1– AG DOWN GUY 3/8"–50' W/2–FGSI ALL KV
IN: 2– AG ANCHOR ROD 1 " X 10' 3–EYE W/PLATE

USA REQUIRED TO CALL IN

NOTE FOR 201274S/4886481E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,420'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 1'–2".
- **SEE TD1531325 FOR POLE REPLACMENT. THIS POLE NEEDS TO BE REPLACED BEFORE ANY WORK NEEDS TO BE DONE.**
- REMOVE 3–3/8" D.G. AND REPLACED THEM WITH 3/8" FGSI D.G. AND ATTACHED AT SAME ATTACHMENT HEIGHT PER TD1531325.
- REMOVE AND REPLACED TWO BURIED ANCHOR TO THE NORTHWEST AND SOUTHEAST WITH 3–EYE ANCHOR.

CAJON CREEK

RM: 387' 2/C #6 CSK–12KV
IN: 387' 2/C 1/0 ATW–12KV

12 — TD1679153–GRID RESILIENCY RM — EXTREME GT131415 — Class C4
35'
RM: 1– POLE 35' CLASS 4 WOOD FULL TREAT
RM: 1– MISC POLE TOP EXTENSION STEEL W/O ARM
RM: 774– CD #8 STR COPPERWELD (TO 1274S)
RM: 2– INS GLASS/POLY 35KV & LESS
RM: 1– XA SNGL FB 10' STEEL PINS

USA REQUIRED TO CALL IN

13 — TD1679153–GRID RESILIENCY POLE — EXTREME 4935679E — Class C1
45'
IN: 1– POLE 45' CL 1 CMP SEC POLE W 18' SHLD
IN: 774– 1/0 ATW XLHDPE INS CABLE 17kV (TO 1274S)
IN: 2– DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2– INS POLY PIN 12KV VRT VICE NYLON
IN: 1– XA SNGL TAN HD COMP 10' W/BKT
IN: 1– OH GUYING TEE W/HARDWARE CMP & WOOD

SIMPLE TRANSFER

NOTE FOR GT131415/4935679E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,383'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 7'–9".
- HARDSET SOUTHWEST.
- SCE TO PTD.
- TRANSFER FTR JOINT OWNER
- TRANSFER 3–PARTY DOWN GUY AT 20'–6".

0349–061–16–0000 ATCHISON TOPEKA AND SANTA FE R/R CO

SOUTHERN PACIFIC R/R CO

APN: 0349–061–03–0000

RM: 115' 2/C 1/0 ATW–12KV
RM: 115' 2/C #6 CSK–12KV
RM: 115' 1–9/32" S.G.

DIRT ROAD

Ext. 24' 1–#4 AT SERV.

0349–061–24–0000 SOUTHERN PACIFIC R/R CO

RM: 382' 2/C #4 ACSR–12KV
IN: 382' 2/C 1/0 ATW–12KV
RM/IN: 382' 1–9/32" S.G.

MATCH LINE 'B' SEE SHEET 4

APN: 0349–061–33–0000

15 — TD1679153–GRID RESILIENCY RM — EXTREME 201275S — Class C4
50'
RM: 1– POLE 50' CLASS 4 WOOD FULL TREAT
RM: 764– CD #4 STR AL BARE ACSR NON–GREASED (TO 2239E)
RM: 4– INS GLASS/POLY 35KV & LESS
RM: 1– XA DBLE VB 10' STEEL PINS
RM: 1– AG SPAN GUY 9/32" – 200'
RM: 2– AG DOWN GUY 9/32" – 50' LESS THAN 22.5KV
RM: 2– AG ANCHOR ROD 3/4" X 8' 2–EYE W/PLATE

16 — TD1679153–GRID RESILIENCY POLE — EXTREME 4935680E — Class C1
55'
IN: 1– POLE 55' CL 1 RS COMP SEC W 25' SHIELD
IN: 764– 1/0 ATW XLHDPE INS CABLE 17kV (TO 2239E)
IN: 4– DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 4– INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 4– KADDAS WILDLIFE CVD CND DEAD END COVER
IN: 1– XA DBL HD DE COMP 10'
IN: 2– AG DOWN GUY 9/32"–50' W/1–FGSI ALL KV
IN: 1– AG SPAN GUY 9/32"–200' MORE THAN 22.5KV
IN: 3– OH GUYING TEE W/HARDWARE CMP & WOOD
IN: 2– AG ANCHOR ROD 1 " X 10' 3–EYE W/PLATE

USA REQUIRED TO CALL IN

17 — TD1772246–MAINTENANCE EXISTING — EXTREME 4935680E — Class C1
55'
RM: 2– FE CO OPEN 100A 12KV 1–EA
RM: 1– SA POLY W/GND NO PRI–N 12KV 1P
RM: 1– TR OH 5KVA 12KV 120/240 1P
SN: _____
RM: 1– SEC ROLLER (166–CLEVIS & SPOOL)
RM: 1– GR OH #6 SOL WP SECONDARY W/ROD
RM: 1– RSR PVC/STRAP 3" TO 2" UNISTRUT APP
IN: 1– XA SNGL DE HD COMP 10' W/BKT (FOR FH & SA)
~~IN: 1– TR OH 25KVA 12KV 120/240 1P~~
SN: _____
IN: 2– FE CO MNT FOR ELF 100A 12KV 1–EA
IN: 2– FE FUSE ELF 15KV 6A
2 IN: ~~1~~ 2– SA HFA POLY W/GND NO PRI–N 12KV 1P
IN: 1– SEC ROLLER (166–CLEVIS & SPOOL)
IN: 1– SEC BRACKET 9" EXTENSION FOR RACK SEC
IN: 1– GR CMP OH #6 SOL WP SECONDARY W/ROD
IN: 1– RSR PVC/STRAP 3" TO 2" UNISTRUT APP

NEW FLAME STYLE TRANSFORMER IN THE FIELD

HOWARD 25KVA #

INSTALL 4X4 WASHERS BEHIND TRANS HANGER BRACKETS, SECONDARY SKATES AND RACKS ETC

INSTALL PINNED STYLE CUTOUT COVERS

NOTE FOR 201275S/4935680E
- IN HFRA–TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,418'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 9'–5".
- SAME HOLE SET.
- SCE TO PTD.
- TRANSFER FTR JOINT OWNER AT 30'.
- REMOVE 2–9/32" DG AND REPLACED WITH 2–9/32" DG AT 45' ATTACHMENT HEIGHT.
- REMOVE 1–9/32" S.G. AND REPLACE WITH 1–9/32" S.G. AT 46' AND 38'6" AT 2239E.

T.L.M. DATA: 201275S/4935680E

	SIZE	kVA	CUST.	%LOAD
EXIST.	5	3.9	2	77.59%
PROP.	25	3.9	2	15.60%

N

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

SCALE: 1 IN = N.T.S. FT

UNDERGROUND SERVICE ALERT
Dial 811
Call USA
For Underground Locating

ASPLUNDH MAP REVISIONS IN RED 8-7-2025 JM/CS

THOMAS GUIDE
SBD. 514–J4
SBD. 515–A4

INVENTORY MAP NO.
S.B.C. 268–2166–2
S.B.C. 272–2166–2

FINAL DESIGN
APPROVED FOR CONSTRUCTION

DATE	REVISION DESCRIPTION	APPROVED	DRAWN	CHECKED

DISTRICT: 30–FOOTHILL			PROJ. MGR. DIYANA NYEIN SIEM PHONE 714–796–9969		PLANNER JAN MONTIERRO PHONE 909–274–3945	SR NO. 2819491
FOREMAN		TRUCK NO.	P/E	INVENTORY MAP NO. SEE ABOVE	THOMAS GUIDE SEE ABOVE	GRID NO. DESIGN NO. 1257956
CSD 140 Y ___ N ___	BY–PASS CODE	EXISTING CHANGE TO		TLM CHECKED ____ %LOAD	J.P.A. NO.	ASSOCIATED DESIGN NO.
PRODUCT/SAP NO. TD1679153-GRID RESILIENCY			PRODUCT/SAP NO. TD1772246-MAINTENANCE			PRODUCT/SAP NO.

TYPE	APPROVED BY	DATE	CHECKED BY	DRAWN BY	PAX #
F		11/18/20	ML	JJM	
P		11/16/20	ML	JJM	
B		05/13/20	RW/UDS/NM	SVG/UDS	

PROPOSED CONSTRUCTION (LOCATION)
BLUE CUT 12kV & VERDEMONT 33kV
CAJON BLVD & KENWOOD AVE
SAN BERNARDINO

Southern California Edison Company

SHEET 3 OF 4 — JOB NO. 1257956_0.01

15KVA #

T.L.M. DATA: 1652239E

	SIZE	kVA	CUST.	%LOAD
EXIST.	15	25.3	1	168.80%

NOTE:
REMOVAL POINT FOR 15 kVA TRANSFORMER IN ZONE 5 IS 27 kVA.

NOTE FOR 1652239E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,495'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 5'-8".
- REMOVE 1-9/32" DG AND REPLACED WITH 1-7/16" DG AT 41'-6" ATTACHMENT HEIGHT.
- REMOVE 1-9/32" DG AND REPLACED WITH 2-3/8" DG AT 38'-6" AND 37'-6" ATTACHMENT HEIGHT.
- REMOVE 2-3/4" 2-EYE ANCHOR FROM NORTHWEST AND SOUTHWEST AND REPLACED WITH 1"-3 EYE ANCHOR.

MATCH LINE 'B' SEE SHEET 3

16203 CANJON BLVD.
APN: 0349-061-25-0000

EX. 60' #4 AT SERV.

DIRT ROAD

RM: 199' 2/C #4 ACSR-12kV
IN: 199' 2/C 1/0 ATW-12kV

PER NOTIFICATION 904
INSTALL HIGH SIGNS

USA REQUIRED TO CALL IN

GROUND ROD INSTALLATION REQUIREMENTS
- ALL GROUND RODS MUST BE A MINIUMUM OF 18" BELOW GRADE WITH A PHOTO SHOWING THE DEPTH USING A TAPE
- ALL GROUND ROD CLAMPS MUST BE A MINIMUM OF 6" FROM THE TOP OF THE ROD
- ALL RODS MUST BE LAID OUT ON THE GROUND AND MEASURED PRIOR TO INSTALLATION TO DETERMINE IF IT IS A 5/8" 8' OR ¾" 10' ROD
- IF YOU ARE INSTALLING 5/8 RODS AT 6' APART YOU MUST HAVE A PHOTO OF THE MINIMUM 6' SEPERATION WITH A TAPE
- IF YOU ARE INSTALLING ¾" RODS AT A MINIMUM 2' SEPERATION DRIVEN AT A 30 DEGREE ANGLE YOU MUST HAVE A MEASUREMENT OF THE MINIMUM 2' SEPERATION AT THE HEAD AND SHOW A PHOTO DURING INSTALLATION THAT THEY ARE BEING DRIVEN AT AN ANGLE.

BREAST BLOCK AND POLE KEY REQUIREMENTS
- ALL POLE KEYS MUST BE INSTALLED PER SPEC USING A SCREWED IN ¾" ANCHOR ROD INTO THE BASE OF THE KEY
- ALL POLE KEYS MUST HAVE A CLEAR PHOTO OF THE KEY AT THE BOTTOM IN A SPREAD OPEN POSITION
- ALL POLE KEYS MUST HAVE A CLEAR PHOTO OF THE DEPTH OF THE KEY MEASURED WITH A TAPE (TAPE READING MUST BE LEGIBLE)
- ALL BREAST BLOCKS MUST HAVE A CLEAR PHOTO OF THE DEPTH OF THE BLOCK MEASURED WITH A TAPE MUST BE 2' TO THE BOTTOM OF THE BLOCK OR 1' FROM THE TOP (TAPE READING MUST BE LEGIBLE)

18 TD1679153-GRID RESILIENCY — EXISTING — EXTREME 1652239E — 50' — Class C4
RM: 398- CD #4 STR AL BARE ACSR NON-GREASED (TO 2240E)
RM: 6- INS GLASS/POLY 35KV & LESS
RM: 2- XA DBLE FB 10' STEEL PINS
RM: 2- AG DOWN GUY 9/32" - 50' LESS THAN 22.5KV
RM: 2- AG ANCHOR ROD 3/4" X 8' 2-EYE W/PLATE
IN: 398- 1/0 ATW XLHDPE INS CABLE 17kV (TO 2240E)
IN: 4- DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 4- INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 4- KADDAS WLDLIFE CVD CND DEAD END COVER
IN: 2- INS POLY PIN 12KV VRT VICE NYLON
IN: 2- ~~XA SNGL~~ DE HD COMP 10' W/BKT DBL
IN: 1- AG DOWN GUY 7/16"-50' W/1-FGSI ALL KV
IN: 2- AG ANCHOR ROD 1 " X 10' 3-EYE W/PLATE

USA REQUIRED TO CALL IN

PER NOTIFICATION 904
REPAIR BROKEN/EXPOSED GROUND MOULDING

19 TD1772246-MAINTENANCE — EXISTING — EXTREME 1652239E — 50' — Class C4
RM: 1- XA SNGL FB 10' STEEL PINS
RM: 2- SA POLY W/GND NO PRI-N 12KV 1P
TR: 2- FE CO OPEN 100A 12KV 1-EA W/ CLD FUSES
2 IN: ~~1~~ SA HFA POLY W/GND NO PRI-N 12KV 1P
IN: 1- XA SNGL DE HD COMP 10' W/BKT
TR: 2- FE CO OPEN 100A 12KV 1-EA W/ CLD FUSES

REPLACE GREY CUTOUT COVERS TO PINNED STYLE COVERS

21 TD1772246-MAINTENANCE — ~~RM~~ — EXTREME 1652241E — 40' — Class C5
RM: 1- POLE 40' CLASS 5 WOOD FULL TREAT
RM: 2- SA POLY W/GND NO PRI-N 12KV 1P
RM: 2- FE CO OPEN 100A 12KV 1-EA
RM: 1- TR OH 10KVA 12KV 120/240 1P
SN: _____
RM: 1- SEC ROLLER (166-CLEVIS & SPOOL)
RM: 1- GR OH #6 SOL WP SECONDARY W/ROD

10KVA #

EX

22 TD1772246-MAINTENANCE — ~~POLE~~ — EXTREME 1652241E — 45' — Class C1
~~IN: 1- POLE 45' CL 1 CMP SEC POLE W 18' SHLD~~
~~IN: 1- SA HFA POLY W/GND NO PRI-N 12KV 1P~~
~~IN: 1- TR OH 25KVA 12KV 120/240 1P~~
SN: _____
IN: 2- FE CO MNT FOR ELF 100A 12KV 1-EA
~~IN: 2- FE FUSE ELF 15KV 6A~~
IN: 1- SEC 3-WIRE, 284 RCK W/ EXTN BRKT
IN: 1- GR CMP OH #6 SOL WP SECONDARY W/ROD

NEW FLAME STYLE TRANSFORMER IN THE FIELD

25KVA #

INSTALL 4X4 WASHERS BEHIND TRANS HANGER BRACKETS, SECONDARY SKATES AND RACKS ETC

POLE,ARMS,ANCHOR AND EQUIPMENT DONE BY OTHERS

23 TD1679153-GRID RESILIENCY — EXISTING — EXTREME 1652241E — 45' — Class C1
RM: 4- INS GLASS/POLY 35KV & LESS
RM: 1- XA DBLE FB 10' STEEL PINS
RM: 1- AG-DOWN GUY 9/32" - 50' LESS THAN 22.5KV
RM: 1- AG ANCHOR ROD 3/4" X 8' 2-EYE W/PLATE
IN: 2- INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 2- KADDAS WLDLIFE CVD CND DEAD END COVER
IN: 2- DAMPER, VIBRATION, ~~17KV~~ 1/0 ATW
IN: 2- INS POLY PIN 12KV VRT VICE NYLON
IN: 1- XA SNGL DE HD COMP 10' W/BKT
IN: 1- AG DOWN GUY 9/32"-50' W/1-FGSI ALL KV
IN: 1- AG ANCHOR ROD 1 " X 10' 3-EYE W/PLATE

POLE,ARMS,ANCHOR AND EQUIPMENT DONE BY OTHERS

NOTE FOR 1652241E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,526'
- NO TRAFFIC AND PTC REQ.
- SAME HOLE SET.
- SCE TO PTD.
- SIMPLE TRANSFER FTR
- REMOVE 1-9/32" PRI. DG AND REPLACE WITH 1-9/32" PRI. D.G. AT 37' AND ATTACHED TO PROP. 3 EYE ANCHOR.
- REMOVE 1-3/4" 2-EYE ANCHOR FROM SOUTHWEST AND AND REPLACED WITH 1"-3 EYE ANCHOR.
- **MAINTENANCE AND GRID RESILIENCY NEEDS TO BE WORK TOGETHER.**

T.L.M. DATA: 1652241E

	SIZE	kVA	CUST.	%LOAD
EXIST.	10	17.2	1	172.36%
PROP.	25	17.2	1	15.60%

RM: 199' 2/C #4 ACSR-12kV
IN: 199' 2/C 1/0 ATW-12kV

RM: 156' 2/C #4 ACSR-12kV
IN: 156' 2/C 1/0 ATW-12kV

RM: 156' 2/C #4 ACSR-12kV
IN: 156' 2/C 1/0 ATW-12kV (0'-5')
RM: 156' 2/C #4 ACSR-12kV
IN: 156' 2/C 1/0 ATW-12kV (5'-40')
RM: 156' 2/C #4 ACSR-12kV
IN: 156' 2/C 1/0 ATW-12kV
REVISED 9/RDD (5'-40')

EX. 45' 1-#4 AT SERV.

RM: 315' 2/C #4 ACSR-12kV
IN: 315' 2/C 1/0 ATW-12kV

16291 SAGE RD.
APN: 0349-061-33-0000

0349-061-30-0000
VACANT LAND

APN: 0349-061-36-0000

24 TD1679153-GRID RESILIENCY — EXISTING — EXTREME 4070585E — 45' — Class C4
RM: 630- CD #4 STR AL BARE ACSR NON-GREASED (TO 0586E)
RM: 2- INS GLASS/POLY 35KV & LESS
RM: 1- XA SNGL FB 10' STEEL PINS
IN: 630- 1/0 ATW XLHDPE INS CABLE 17kV (TO 0586E)
IN: 2- DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2- INS POLY PIN 12KV VRT VICE NYLON
IN: 1- XA SNGL TAN HD COMP 10' W/BKT

NOTE FOR 4070585E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,507'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.

DIRT ROAD

RM: 301' 2/C #4 ACSR-12kV
IN: 301' 2/C 1/0 ATW-12kV

EX: 165' 1-#4 AT SERV.

25 TD1679153-GRID RESILIENCY — EXISTING — EXTREME 4070586E — 45' — Class C4
RM: 602- CD #4 STR AL BARE ACSR NON-GREASED (TO 0587E)
RM: 4- INS GLASS/POLY 35KV & LESS
RM: 1- XA DBLE FB 10' STEEL PINS
RM: 1- AG DOWN GUY 9/32" - 50' LESS THAN 22.5KV
IN: 602- 1/0 ATW XLHDPE INS CABLE 17kV (TO 0587E)
IN: 2- DAMPER, VIBRATION,17KV 1/0 ATW
IN: 2- INS POLY PIN 12KV ANG VICE NYLON
IN: 1- XA SNGL TAN HD COMP 10' W/BKT
IN: 1- AG DOWN GUY 9/32"-50' W/1-FGSI ALL KV

NOTE FOR 4070586E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,497'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- REMOVE 1-9/32" PRI. DG AND REPLACE WITH 1-9/32" PRI. D.G. AT 37' AND ATTACHED TO EXIST. 3 EYE ANCHOR.

RM: 23' 2/C #4 ACSR-12kV
IN: 23' 2/C 1/0 ATW-12kV

RM: 233' 2/C #4 ACSR-12kV
IN: 233' 2/C 1/0 ATW-12kV

UG SERV.

16397 CANJON BLVD.

DIRT ROAD

THOMAS GUIDE
SBD. 514-J4
SBD. 515-A4

INVENTORY MAP NO.
S.B.C. 268-2166-2
S.B.C. 272-2166-2

NOTE FOR 1652240E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,502'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- RULING SPAN 1/0 ATW PRI. SAG @ 5'-8". (TO 0585E)
- INSTALL 2-3/8" DG AT 36'-6" & 33'-6" ATTACHMENT HEIGHT & ATTACHED TO PROP. ANCHOR.
- INSTALL 3-EYE ANCHOR NORTHEAST WITH 5' LEAD.
- RELINQUISHED 1-2-EYE ANCHOR SOUTHEAST TO FTR.

20 TD1679153-GRID RESILIENCY — EXISTING — EXTREME 1652240E — 45' — Class C4
RM: 300- CD #4 STR AL BARE ACSR NON-GREASED (TO 2241E)
RM: 312- CD #4 STR AL BARE ACSR NON-GREASED (TO 0585E)
RM: 9- INS GLASS/POLY 35KV & LESS
RM: 1- XA DBLE VB 10' STEEL PINS
RM: 1- AG DOWN GUY 9/32" - 50' LESS THAN 22.5KV
IN: 300- 1/0 ATW XLHDPE INS CABLE 17kV (TO 2241E)
IN: 312- 1/0 ATW XLHDPE INS CABLE 17kV (TO 0585E)
IN: 4- DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2- INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 2- KADDAS WLDLIFE CVD CND DEAD END COVER
IN: 2- INS POLY PIN 12KV ANG VICE NYLON
IN: 1- INS POLY PIN 12KV VRT VICE NYLON
IN: 1- XA ~~SNGL~~ DE HD COMP 10' W/BKT DBL
IN: 1- XA SNGL TAN HD COMP 10' W/BKT
IN: 2- AG DOWN GUY 3/8" - 50' LESS THAN 22.5KV
IN: 1- AG ANCHOR ROD 1 " X 10' 3-EYE W/PLATE

26 TD1679153-GRID RESILIENCY — RM — EXTREME 4070587E — 45' — Class C4
RM: 1- POLE 45' CLASS 4 WOOD FULL TREAT
RM: 462- CD #4 STR AL BARE ACSR NON-GREASED
RM: 6- INS GLASS/POLY 35KV & LESS
RM: 1- XA DBLE FB 10' STEEL PINS
RM: 1- GR OH #6 SOL WP SECONDARY W/ROD
TR: 1- TR OH 15KVA 12KV 120/240 1P
SN: _____

NOTE FOR 4070587E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,511'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- XFRM START DATE 10/05/10.
- SAME HOLE SET.
- SCE TO PTD.
- SIMPLE TRANSFER FTR.
- ADD BREAST BLOCK AND POLE KEY.
- ADD VISIBILITY STRIPS.

USA REQUIRED TO CALL IN

27 TD1679153-GRID RESILIENCY — POLE — EXTREME 4070587E — 45' — Class H2
IN: 1- POLE 45' CL H2 WD FT /W PROT BARR WF
IN: 6- STRIP, 2" X 12" SIZE, VISIBILITY KIND
IN: 462- 1/0 ATW XLHDPE INS CABLE 17kV
IN: 2- DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2- INS POLY PIN 12KV ANG VICE NYLON
IN: 1- XA SNGL TAN HD COMP 10' W/BKT
IN: 1- GR OH #6 SOL WP SECONDARY W/ROD
IN: 1- AG BLOCK & POLE KEY
TR: 1- TR OH 15KVA 12KV 120/240 1P
SN: HOWARD 15KVA #

BREAST BLOCK & POLE KEY CALCULATION
45'-H2 DF-TB FOR 12 LBS = 66,533 FT/LBS
POLE-KEY RESISTING MOMENT = 55,125 FT/LBS
2/C 1/0 ATW DEVIATION ANGLE = 22,186 FT/LBS
4070587E PASSED BREAST BLOCK & POLE KEY

T.L.M. DATA: 4070587E

	SIZE	kVA	CUST.	%LOAD
EXIST.	15	20.0	2	133.33%

NOTE:
REMOVAL POINT FOR 15 kVA TRANSFORMER IN ZONE 5 IS 27 kVA.

INSTALL POLE KEY AND BLOCK

REPLACE GREY CUTOUT COVERS TO PINNED STYLE COVERS

REPLACE WITCH HAT WITH NEW WHEEL STYLE BUSHING COVERS

SIMPLE TRANSFER

28 TD1772246-MAINTENANCE — EXISTING — EXTREME 4070587E — 45' — Class H2
RM: 2- SA POLY W/GND NO PRI-N 12KV 1P
RM: 1- XA SNGL FB 10' STEEL PINS
RM: 1- SEC 1" PVC FOR UNDER ARM W/#8 TW WIRE
RM: 1- SEC ROLLER (166-CLEVIS & SPOOL)
RM: 1- RSR 3" TO 2" EXTENSION E/DIV
TR: 2- FE CO ~~FAULT TAMER~~ 20A 12KV 1-EA
IN: 1- XA SNGL DE HD COMP 10' W/BKT
2 IN: ~~1~~ SA HFA POLY W/GND NO PRI-N 12KV 1P
IN: 1- SEC 1" PVC FOR UNDER ARM W/#8 TW WIRE
IN: 1- SEC ROLLER (166-CLEVIS & SPOOL)
IN: 1- SEC BRACKET 9" EXTENSION FOR RACK SEC
IN: 1- RSR 3" TO 2" EXTENSION E/DIV
~~TR: 2- FE CO FAULT TAMER 20A 12KV 1-EA~~

IN 2- ELF FUSES

#IN 2- ELF FUSES

FOR ACCESS CALL IRENE 626-484-6545

NOTE FOR 4070588E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,464'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.

29 TD1679153-GRID RESILIENCY — EXISTING — EXTREME 4070588E — 45' — Class C4
RM: 466- CD #4 STR AL BARE ACSR NON-GREASED (TO 0589E)
RM: 6- INS GLASS/POLY 35KV & LESS
RM: 1- XA DBLE FB 10' STEEL PINS
IN: 466- 1/0 ATW XLHDPE INS CABLE 17kV (TO 0589E)
IN: 2- DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2- INS POLY PIN 12KV VRT VICE NYLON
IN: 1- XA SNGL TAN HD COMP 10' W/BKT

FOR ACCESS CALL IRENE 626-484-6545

PER NOTIFICATION 904
UNAUTHORIZED ATTACHMENT-LIGHT ON POLE
2-REPAIR BROKEN/EXPOSED GROUND MOULDING
3- BIRD GUARD ON CUTOUTS

NOTE FOR 4070589E
- IN HFRA-TIER 3/EXTREME.
- IN EAGLE ZONE.
- ELEVATION=2,459'
- NO TRAFFIC AND PEDESTRIAN TRAFFIC CONTROL REQ.
- REMOVE 1-9/32" PRI. DG AND REPLACE WITH 1-7/16" PRI. D.G. AT 36' AND ATTACHED TO EXIST. 3 EYE ANCHOR.

T.L.M. DATA: 4070589E

	SIZE	kVA	CUST.	%LOAD
EXIST.	15	12.3	1	81.91%

NOTE:
REMOVAL POINT FOR 15 kVA TRANSFORMER IN ZONE 5 IS 27 kVA.

15KVA #

30 TD1679153-GRID RESILIENCY — EXISTING — EXTREME 4070589E — 45' — Class C4
RM: 4- INS GLASS/POLY 35KV & LESS
RM: 1- XA DBLE FB 10' STEEL PINS
RM: 1- AG DOWN GUY 9/32" - 50' LESS THAN 22.5KV
TR: 2- FE CO OPEN 100A 12KV 1-EA W/ CLD FUSES
IN: 2- INS POLY DE 12KV HOT SHOE #4 & 1/0
IN: 2- KADDAS WLDLIFE CVD CND DEAD END COVER
IN: 2- DAMPER, VIBRATION, 17KV 1/0 ATW
IN: 2- INS POLY PIN 12KV VRT VICE NYLON
2 IN: ~~1~~ SA HFA POLY W/GND NO PRI-N 12KV 1P
IN: 1- ~~XA SNGL~~ DE HD COMP 10' W/BKT DBL
IN: 1- AG DOWN GUY 7/16"-50' W/1-FGSI ALL KV
TR: 2- FE CO OPEN 100A 12KV 1-EA W/ CLD FUSES

#IN 2- ELF CUTOUTS

INSTALL RISER WARNING STICKER

REPLACE GREY CUTOUT COVERS TO PINNED STYLE COVERS

DATE	REVISION DESCRIPTION	APPROVED	DRAWN	CHECKED

SOUTHERN CALIFORNIA EDISON — Distribution Overhead Construction Standards

1.0 Installation Instructions

1.1 Screw a 3/4-inch anchor rod into base of pole-key.

1.2 Drop the pole-key into hole, at base of pole, on opposite side of the applied strain (see Figure PO 130–2.1).

1.3 Expand pole-key with tamping bar into solid earth (see Figure PO 130–2.2).

1.4 The pole-key must be fully expanded to insure a maximum bearing surface.

1.5 When the pole-key is fully expanded, see Figure PO 130–2.3, the anchor rod is removed and the hole filled and tamped.

Figure PO 130–2: Methods of Self-Sustaining Pole with Breast Block and Pole-Key

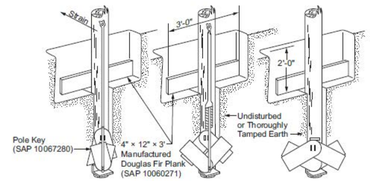


Figure PO 130–2.1 Figure PO 130–2.2 Figure PO 130–2.3

PO 130	Pole-Key and Block Support	Approved by: DOH
sheet 2of2	What's Changed? Section 2.6 and Figure PO 130-2.3 have been updated for clarity.	Effective Date: 01-25-2019

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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

SCALE: 1 IN = N.T.S. FT

UNDERGROUND SERVICE ALERT
Dial 811
Call USA

ASPLUNDH MAP REVISIONS IN RED 8-7-2025 JM/CS

FINAL DESIGN
APPROVED FOR CONSTRUCTION

DISTRICT: 30-FOOTHILL	PROJ. MGR. DIYANA NYEIN SIEM PHONE 714-796-9969	PLANNER JAN MONTIERRO PHONE 909-274-3945	SR NO. 2819491
FOREMAN	TRUCK NO.	P/E	INVENTORY MAP NO. SEE ABOVE	THOMAS GUIDE SEE ABOVE	GRID NO.	DESIGN NO. 1257956
CSD 140 Y ____ N ____	BY-PASS CODE	EXISTING CHANGE TO	TLM CHECKED %LOAD	J.P.A. NO.	ASSOCIATED DESIGN NO.
PRODUCT/SAP NO. TD1679153-GRID RESILIENCY		PRODUCT/SAP NO. TD1772246-MAINTENANCE		PRODUCT/SAP NO.

F		11/18/20	ML	JJM	
P		11/16/20	ML	JJM	
B		05/13/20	RW/UDS/NM	SVG/UDS	
TYPE	APPROVED BY	DATE	CHECKED BY	DRAWN BY	PAX #

Southern California Edison Company

PROPOSED CONSTRUCTION (LOCATION)
BLUE CUT 12kV & VERDEMONT 33kV
CAJON BLVD & KENWOOD AVE
SAN BERNARDINO

SHEET 4 OF 4 — JOB NO. 1257956_0.01