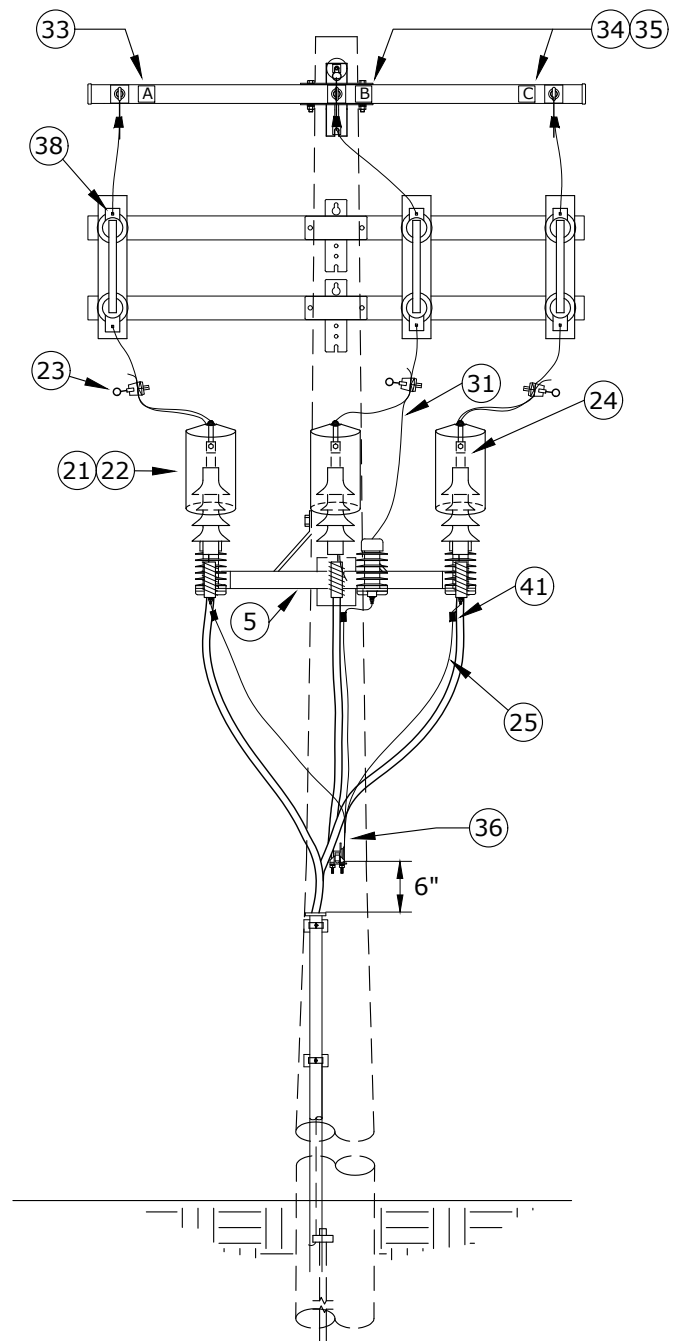




1. See HC3.3 for grounding details.
2. All ground wire is #4 Cu equivalent covered copper-clad steel.
3. Avoid sharp turns in lightning arrester grounds and primary leads.
4. The pole must be 45' Class 2 or taller.

The logo for Mason County PUD is a circular emblem. It features a large, stylized grey letter 'M' in the background. Overlaid on the 'M' is the text 'MASON COUNTY' in a bold, blue, sans-serif font. Below this, the letters 'PUD' are written in a larger, bold, blue, sans-serif font. A red diagonal line with a white outline cuts across the 'PUD' text. At the bottom of the emblem, there are three wavy blue lines representing water.

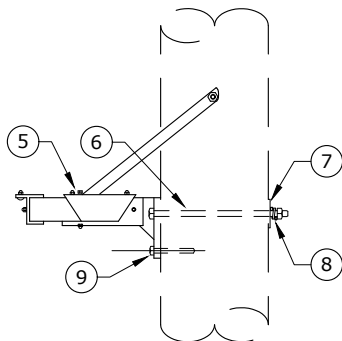
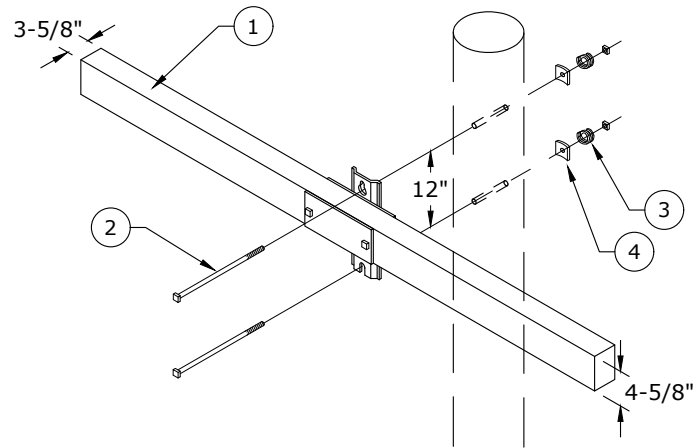
500MCM CABLE RISER WITH 600 AMP DISCONNECTS

UC3.3

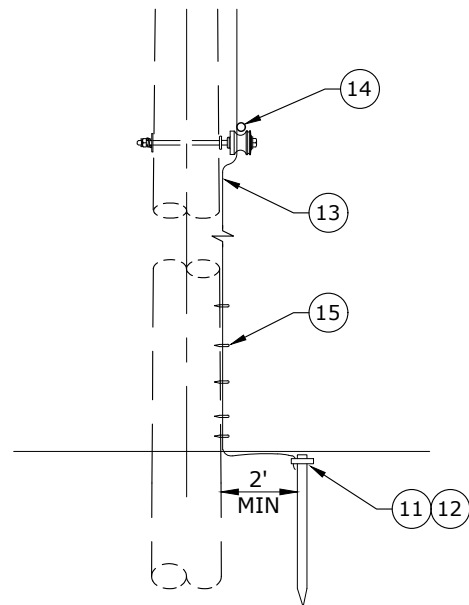
			

New Assembly

CR23B



BR10



N1



CONSTRUCTION STANDARDS

500MCM CABLE RISER WITH 600 AMP DISCONNECTS

PAGE:
2 of 3

UC3.3

		UC3.3	
ITEM NO	DESCRIPTION	CR23B (2)	
		QTY	
1	Crossarm, Distribution, Fiberglass, 10' Long x 3-5/8" Wide x 4-5/8" Tall	2	
2	Bolt, Machine, 5/8" x 14", Galv., 12,400 lb Ultimate Tensile	4	
3	Washer, Lock, Spring, Double Coil, Galv, 5/8"	4	
4	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	4	
ITEM NO	DESCRIPTION	BR10	
		QTY	
5	Bracket, Terminator, Mount, 48", 500MCM	1	
6	Bolt, Machine, 5/8" x 14", Galv, 12,400 lb Ultimate Tensile	1	
7	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole, Galv	1	
8	Washer, Lock, Spring, Double Coil, Galv, 5/8"	1	
9	Screw, Lag, 1/2" x 4 1/2", Twist Drive, Drive Point	3	
10	Support, Cable, 500MCM	3	
ITEM NO	DESCRIPTION	N1	
		QTY	
11	Rod, Ground, 5/8" x 8'	1	
12	Clamp, Ground Rod, 5/8", Small, Bronze	1	
13	Conductor, Copper-Clad Steel, #4 Cu Equivalent, 40% Annealed, Black Jacket with Green Stripe	40*	
14	Connector, H-Tap, Al/Cu, Run #2 - 2/0 Str, Tap #6 - #1 Str	1	
15	Staple, Ground Wire, Barbed, Galvanized, 1 1/2"	24*	
ITEM NO	DESCRIPTION	ADDITIONAL MATERIAL	
		QTY	
16	Connector, 336 TO 4/0 ACSR	3	
17	Conductor, OH, 600v, Cu, 2/0, 19-Str, XLPE, 80 mil, Soft-Drawn, 1C, RHW-2	30	
18	Conductor, OH, ACSR, 336, Merlin	30	
19	Terminator, 15kV, Cold-Shrink JCN, 500MCM	3	
20	Arrester, Surge, 9 kV, MOV, Riser Pole	3	
21	Connector, Compression, Lug, 2-Hole, 336 ACSR and 397 AAC	3	
22	Connector, Compression, Lug, Al/Cu, Tin-Plated, 500MCM to NEMA 2-Hole	3	
23	Clamp, Hot Line, GP1530, Line #6 Sol - 400MCM, Tap #6 Sol - 4/0 Str, Cu Only	3	
24	Bolt, 1/2" x 2", w/ Flat and Belleville Washers, Assembly	6	
25	Conductor, OH, Cu, #4 Solid, Bare, Soft-Drawn, 1C	10	
26	Screw, Lag, 1/2" x 4 1/2", Twist Drive, Drive Point	9	
27	Connector, Crimpet, Cu, Run 3/0 - 4/0 Str, Tap #6 Sol - #2 Str	3	
28	Conduit, 3" x 10', Sch 80	90*	
29	Clamp, Standoff Bracket, 3"	9	
30	End Bell, 3", Sch 40	3	
31	Conductor, OH, 600v, Cu, #2, 7-Str, XLPE, 60 mil, Soft-Drawn, 1C, RHW-2	15	
32	Bracket, Standoff, 15" with Stop and Brace	3	
33	Tag, Phase A	1	
34	Tag, Phase B	1	
35	Tag, Phase C	1	
36	Connector, Crimpet, Cu, Run and Tap 1/0 - 2/0 Str	2 *	
37	Guard, Wildlife, Large, OH/UG Terminators	3	
38	Disconnect, 600 Amp, Single Blade	3	
39	Indicator, Fault, 400A, OH, Beacon with Signal Flag, Electric Field Reset	3	
40	Guard, Wildlife, Polymer Arrester	3	
41	Connector, Crimpet, Cu, Run 3/0 Str - 250 Str, Tap #6 Sol - 2/0 Str	3	
42	Grip, Support, 3" Conduit, 500MCM	3	
		CONSTRUCTION STANDARDS	
		500MCM CABLE RISER WITH 600 AMP DISCONNECTS	
PAGE: 3 of 3		UC3.3	



PAGE:
2 of 3

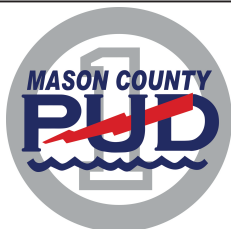
UC3.3GOS

[illegible]

		UC3.3GOS																	
ITEM NO.	DESCRIPTION	BR10																	
		QTY.																	
1	Bracket, Terminator, Mount, 48", 500MCM	1																	
2	Bolt, Machine, 5/8" x 14", Galv, 12,400 lb Ultimate Tensile	1																	
3	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole, Galv	1																	
4	Washer, Lock, Spring, Double Coil, Galv 5/8"	1																	
5	Screw, Lag, 1/2" x 4 1/2", Twist Drive, Drive Point	3																	
6	Support, Cable, 500MCM	3																	
ITEM NO.	DESCRIPTION	N1																	
		QTY.																	
7	Rod, Ground, 5/8" x 8'	1																	
8	Clamp, Ground Rod, 5/8", Small, Bronze	1																	
9	Conductor, Copper-Clad Steel, #4 Cu Equivalent, 40% Annealed, Black Jacket with Green Stripe	40✳																	
10	Connector, H-Tap, Al/Cu, Run #2 - 2/0 Str, Tap #6 - #1 Str	1																	
11	Staple, Ground Wire, Barbed, Galvanized, 1 1/2"	24																	
ITEM NO.	DESCRIPTION	ADDITIONAL MATERIAL																	
		QTY.																	
12	Switch, Loadbreak, Horizontal, 600A, 15kV	1																	
13	Conductor, OH, ACSR, 336, Merlin	60																	
14	Connector, Compression, Lug, 2-Hole, 336 ACSR	6																	
15	Bolt, 1/2" x 2", w/ Flat and Belleville Washers, Assembly	6 ✳																	
16	Connector, 336 TO 4/0 ACSR	3																	
17	Conductor, Copper-Clad Steel, #4 Cu Equivalent, 40% Annealed, Black Jacket with Green Stripe	20																	
18	Staple, Ground Wire, Barbed, Galvanized, 1 1/2"	5																	
19	Clamp, Ground Rod, 5/8", Small, Bronze	1																	
20	Rod, Ground, 5/8" x 8'	1																	
21	Machine Bolt, 3/4" x 16" Galv., 18,350 lbs. Ultimate Tensile	2																	
22	Washer, Curved, Cast, 4" x 4" with 13/16" Hole	2																	
23	Washer, Lock Spring, Double Coil, Galv. 3/4"	2																	
24	Lock, Padlock, 2" Hardened Stainless Steel Shackle	1																	
25	Conductor, OH, 600v, Cu, 2/0, 19-Str, XLPE, 80 mil, Soft-Drawn, 1C, RHW-2	60																	
26	Terminator, 15kV, Cold-Shrink JCN, 500 MCM	3																	
27	Arrester, Surge, 9kV, MOV, Riser Pole	3																	
28	Connector, Compression, Lug, Al/Cu, Tin-Plated, 500MCM to NEMA 2-Hole	3																	
29	Clamp, Hot Line, GP 1530, Line #6 Sol - 400MCM, Tap #6 Sol - 4/0 Str Cu Only	3																	
30	Conductor, OH, Cu, #4 Solid, Bare, Soft-Drawn, 1C	10																	
31	Screw, Lag, 1/2" x 4 1/2", Twist Drive, Drive Point	9																	
32	Connector, Crimpet, Cu, Run 3/0 - 4/0 Str, Tap #6 Sol - #2 Str	3 ✳																	
33	Conduit, 3" x 10', Sch 80	90✳																	
34	Clamp, Standoff Bracket, 3"	9																	
35	End Bell, 3" Sch 40	3																	
36	Conductor, OH, 600v, Cu, #2, 7-Str, XLPE, 60 mil, Soft-Drawn, 1C, RHW-2	15																	
37	Bracket, Standoff, 15" with Stop and Brace	3																	
38	Tag, Phase A	1																	
39	Tag, Phase B	1																	
40	Tag, Phase C	1																	
41	Connector, Crimpet, Cu, Run and Tap 1/0 - 2/0 Str	2 ✳																	
42	Guard, Wildlife, Large, OH/UG Terminators	3																	
43	Indicator, Fault, 400A, OH, Beacon with Signal Flag, Electric Field Reset	3																	
44	Guard, Wildlife, Polymer Arrester	3																	
45	Connector, Crimpet, Cu, Run 3/0 Str - 250 Str, Tap #6 Sol - 2/0 Str	3																	
46	Grip, Support, 3" Conduit, 500MCM	3																	
		CONSTRUCTION STANDARDS																	
		500MCM CABLE RISER WITH 3Ø SWITCH																	
PAGE: 3 of 3		UC3.3GOS																	
		<table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																	
																			

NOTES:

1. Make connections as close to terminator as possible but DO NOT make a sharp bend. Use hot line clamp for easy removal.
2. Connect surge arrester lead to concentric neutral.
3. Connect concentric neutral wires (twist together) to 2/0 stranded copper with 4/0-2/0 crimpet. Connect separate 2/0 runs, as per drawing, from each concentric neutral to the system neutral. Use 2/0 covered conductor and train this conductor back down along the 500MCM cable for appearance.
4. Use separate ground lead for system neutral grounding connection. Any other equipment grounds may be connected to this ground lead also per NESC 092B3.
5. Do not connect arrester grounds separately to system neutral. Connect to concentric neutral as near to the terminator as possible per NESC 097B.
6. Do not ground equipment mounting bracket per NESC 123A.
7. Top of ground rod must be buried per NESC 094C2a3.
8. If more than one ground rod is required they must be separated by at least 6 feet per NESC 094C2a2.



CONSTRUCTION STANDARDS

500 MCM CABLE RISER GROUNDING DETAIL

PAGE:
2 of 2

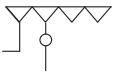
HC3.3 DETAILS

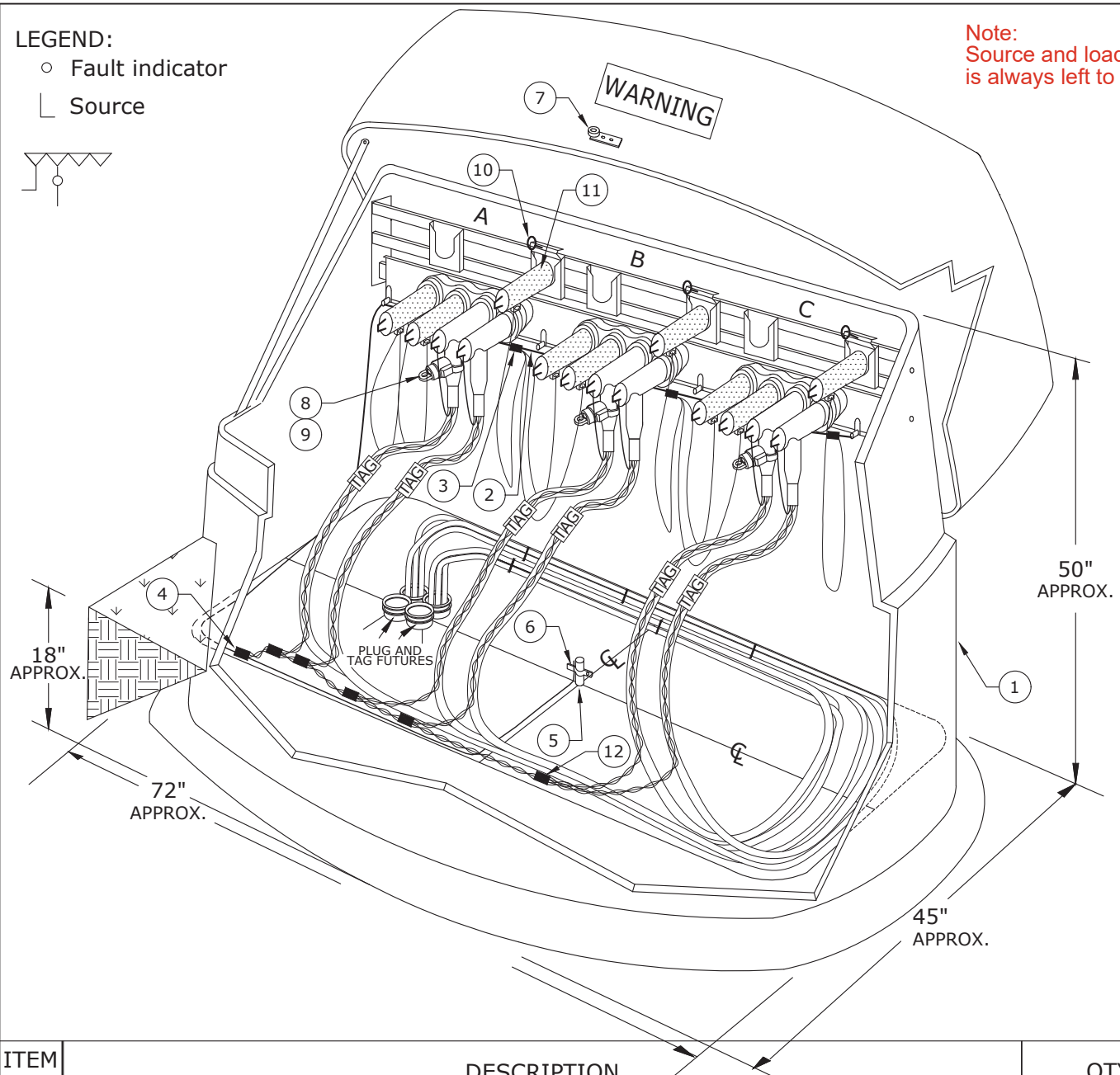
LEGEND:

○ Fault indicator

└ Source



Note:
Source and load
is always left to right.



ITEM NO.	DESCRIPTION	QTY
1	Box, Junction, 3Ø, Fiberglass w/LBC4 Installed, 49" High	1
2	Conductor, Cu, #4 Solid, 1C, Bare, Soft-Drawn	25
3	Connector, Crimpet, Cu, Run & Tap #6 Sol - #4 Str (4C4)	5
4	Connector, Crimpet, Cu, Run #4 Sol - #2 Str, Tap #8 Sol - #4 Str (2C4)	1
5	Rod, Ground 5/8" x 8'	1
6	Clamp, Ground Rod, 5/8", Bronze, Small	1
7	Lock, Equipment, UG	1
8	Elbow, 200A, LB, #2, 220 mil, Test Point, 15kV	6
9	Indicator, Fault, UG, 400A, Test Point, Voltage Reset, 1Ø	3
10	Bushing, Standoff Insulated, 200A	3
11	Cap, Protective Insulated, 200A, 15kV UG	9
12	Connector, Crimpet, Cu, Run & Tap #2 Sol - #2 Str (2C2)	2



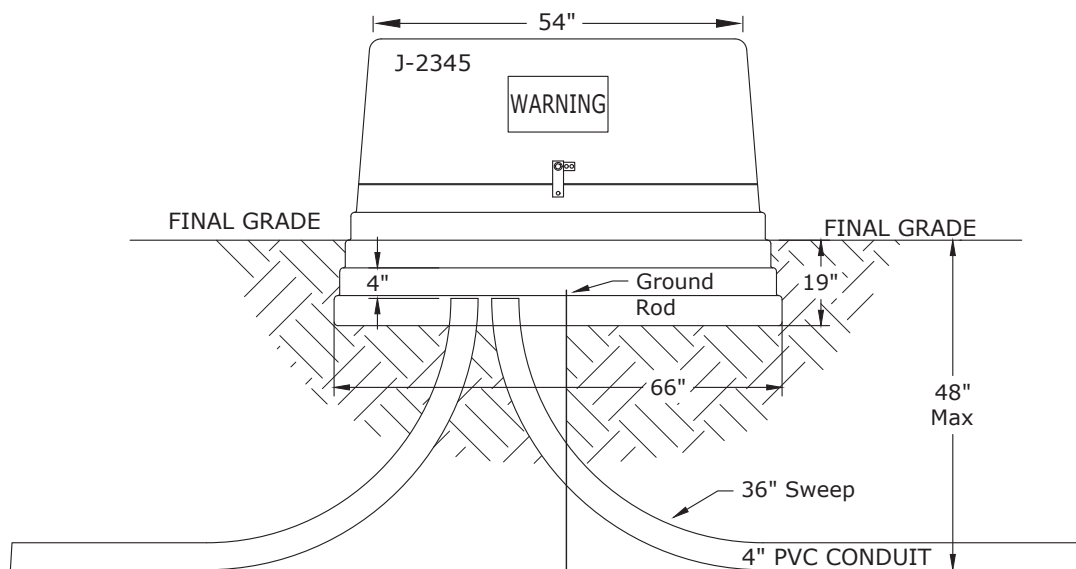
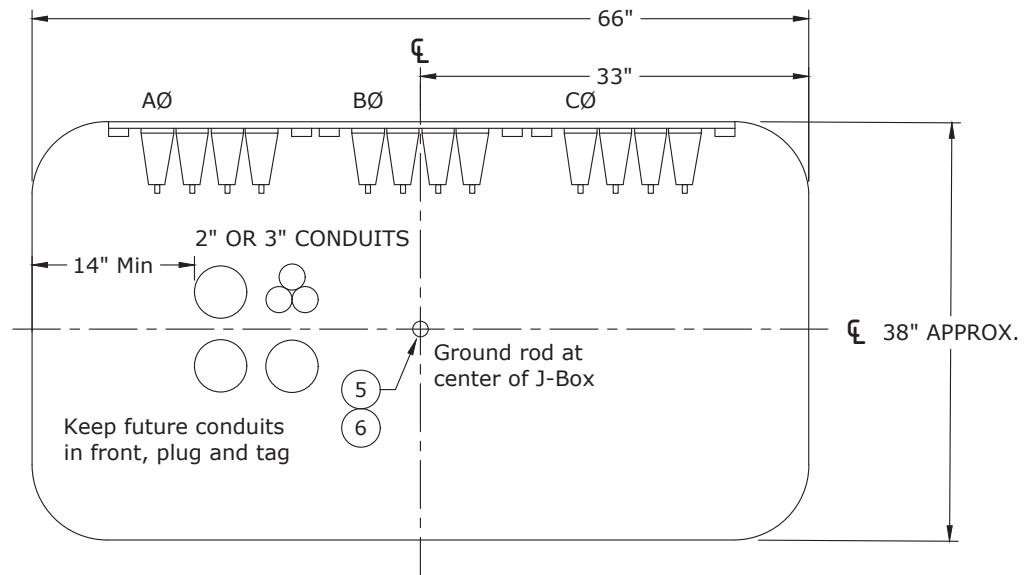
CONSTRUCTION STANDARDS

3Ø JUNCTION BOX
4-WAY

PAGE:
1 of 2

US3.PJ

△			



Notes:

1. Typical elbow arrangement is shown.
2. Do not put dirt inside junction box. Space is required for cable slack and operating clearance.
3. Leave cable slack for future operations.
4. Future conduits shall be plugged w/ 2" plastic conduit plug.
5. Futures should be tagged with direction and length of condu
6. Proof conduit and install sequentially-numbered, 2500 lb, mule tape in all futures.



CONSTRUCTION STANDARDS

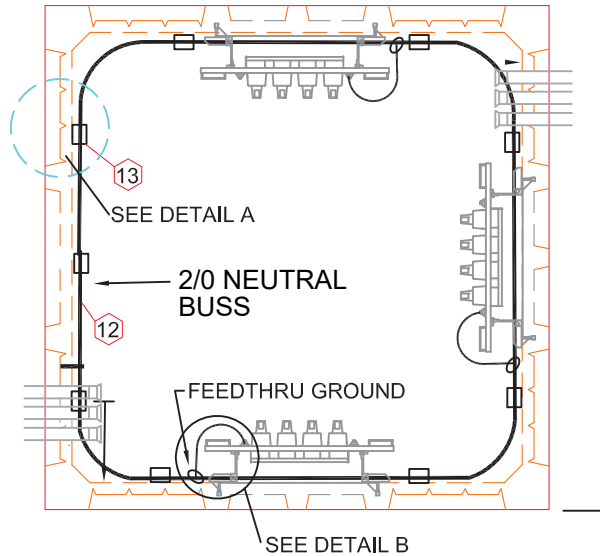
3Ø JUNCTION BOX
4-WAY

PAGE:
2 of 2

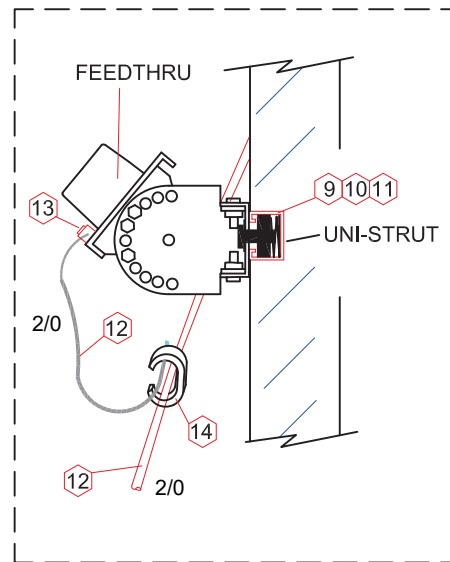
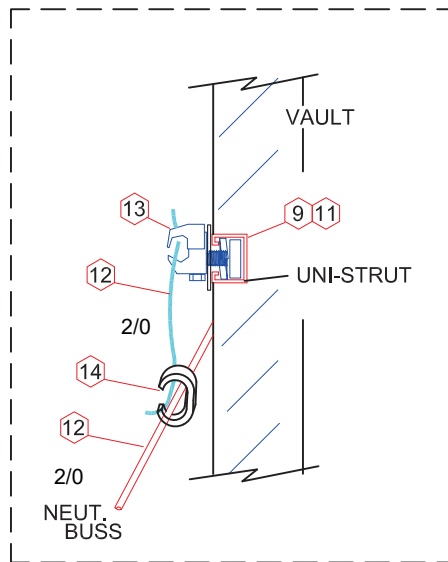
US3.PJ

			
APP:			
DATE:			



STACK 4-WAYS
PER V57/NC57
OR V77/NC77D



ITEM	DESCRIPTION	QUANTITY	
		UVG	
	GROUNDING		
9	SS WASHER- 1/2" ROUND	10	
10	SS BOLT 3/4" x 1/2"	6	
11	UNI STRUT NUT 1/2"	14	
12	2/0 COPPER S/D	40'	
13	GROUND CONNECTOR 2/0	8	
14	COPPER CRIMP (2/0 - 2/0)	14	

ADDITIONAL MATERIAL NOT SHOWN:

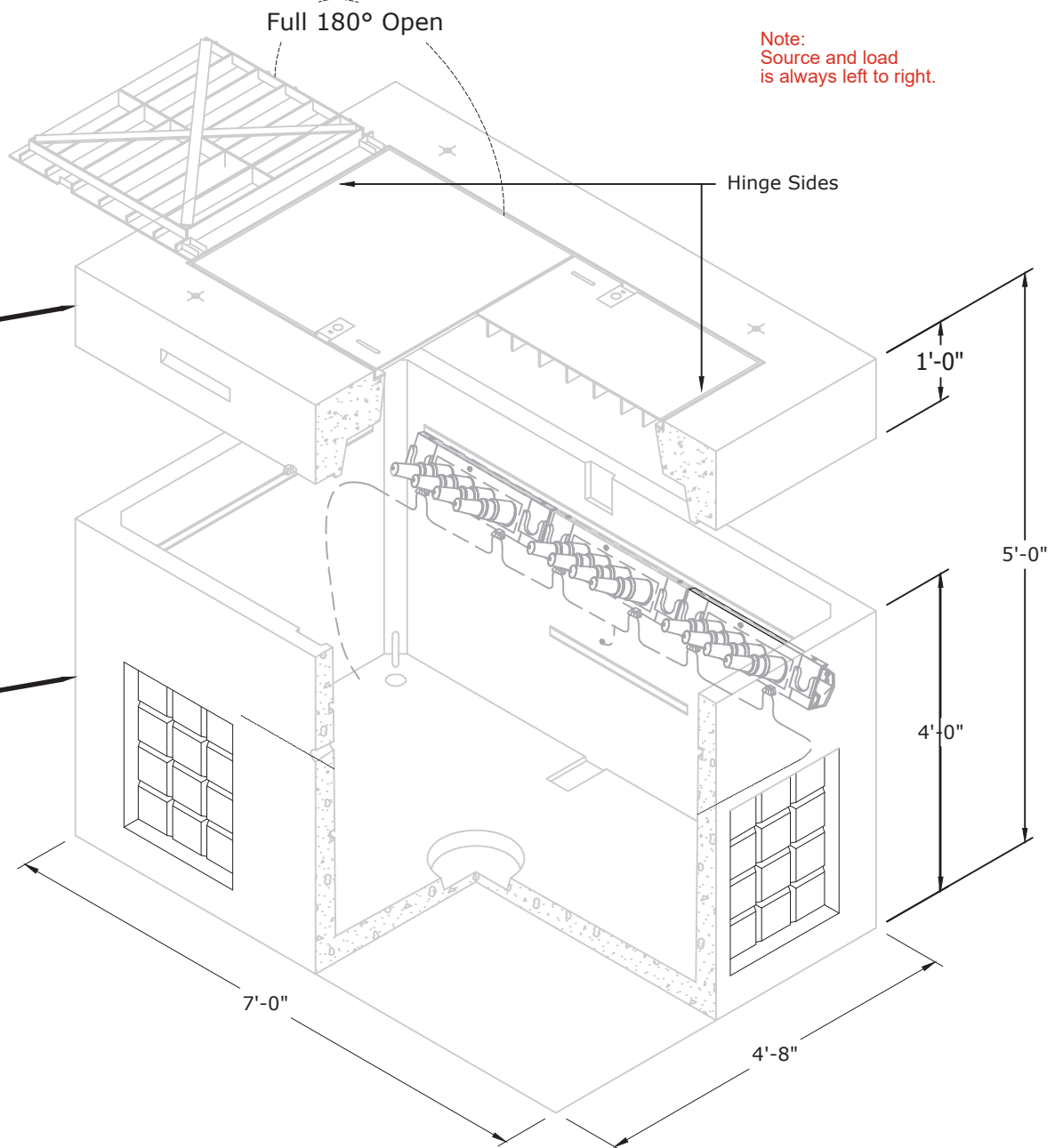
30' :Conductor, Cu, #4 solid, 1C, Bare, Soft-drawn (Grounds for elbows, grd caps, etc.)

Qty As Reqd: Connector, Crimpet, Cu, #4 to 2/0 (Ground to Buss)

Qty As Reqd: Connector, Crimpet, Cu, 4/0 to 2/0 (Concentric to Buss)



UVG



VAULT AND LID ARE PUD PROVIDED

V57			
ITEM	QTY	DESCRIPTION	ITEM#
Uja-1	10	VAULT, 775LA, UFER GROUND (SELF-GROUNDING)	

VC57			
ITEM	QTY	DESCRIPTION	ITEM#
Uja-2	10	VAULT COVER, DBL DOOR, 775-LA, NON SLIP	

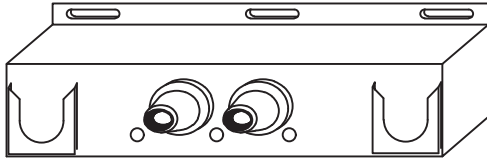


CONSTRUCTION STANDARDS
UNDERGROUND
THREE-PHASE PRIMARY
575 VAULT AND COVER

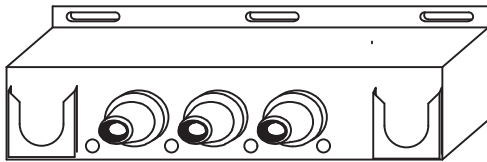
REVISIONS			
DATE	ENGR	OPS	
3/18/25	JJW	OPS	

PAGE:
1 of 1

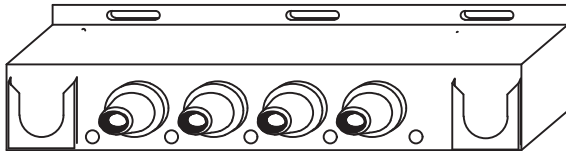
V(C)77



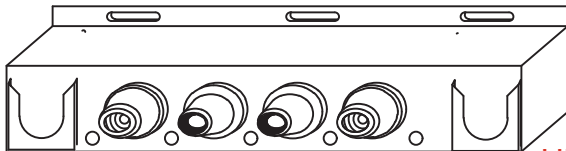
UM6.JN22 TWO POINT TERMINATION
2-200 AMP LOAD BREAK (FORMERLY UM6-20)



UM6.JN222 THREE POINT TERMINATION
3-200 AMP LOAD BREAK (FORMERLY UM6-21)



UM6.JN2222 FOUR POINT TERMINATION
4-200 AMP LOAD BREAK (FORMERLY UM6-22)



UM6.JN6226 FOUR POINT TERMINATION
2-600 AMP DEAD BREAK
2-200 AMP LOAD BREAK

UM6.JN6666

Hubbell #625-J4-U - ELASTIMOLD-DP#0568120

ITEM	QTY.	MATERIAL
Uhq	1	Multipoint junction

DEFINE THE NUMBER OF POINTS
AND TYPE OF POINT FOR EACH MODULE
2 FOR 200 AMP LOAD BREAK
6 FOR 600 AMP DEAD BREAK
9 FOR 900 AMP DEAD BREAK

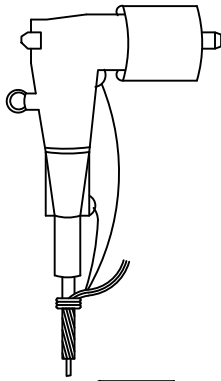


MULTIPOINT JUNCTIONS

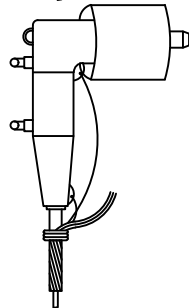
AUG 2016

RUS

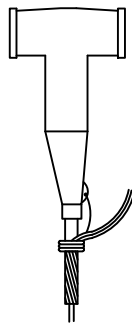
UM6.JN



LOAD BREAK ELBOW – 200 AMP LOAD BREAK
 UM6.EL2.WIRE SIZE
 (FORMERLY UM6-1)



FUSED ELBOW TERMINATION 200 AMP LOAD BREAK
 UM6.EL2F.FUSE SIZE.WIRE SIZE
 UM6.EL2F.30.WIRE SIZE FOR 30 AMP FUSE
 (FORMERLY UM6-2)



DEAD BREAK TERMINATION 600 AMP
 UM6.EL6.WIRE SIZE
 DEAD BREAK TERMINATION 900 AMP
 UM6.EL9.WIRE SIZE
 (FORMERLY UM6-3)

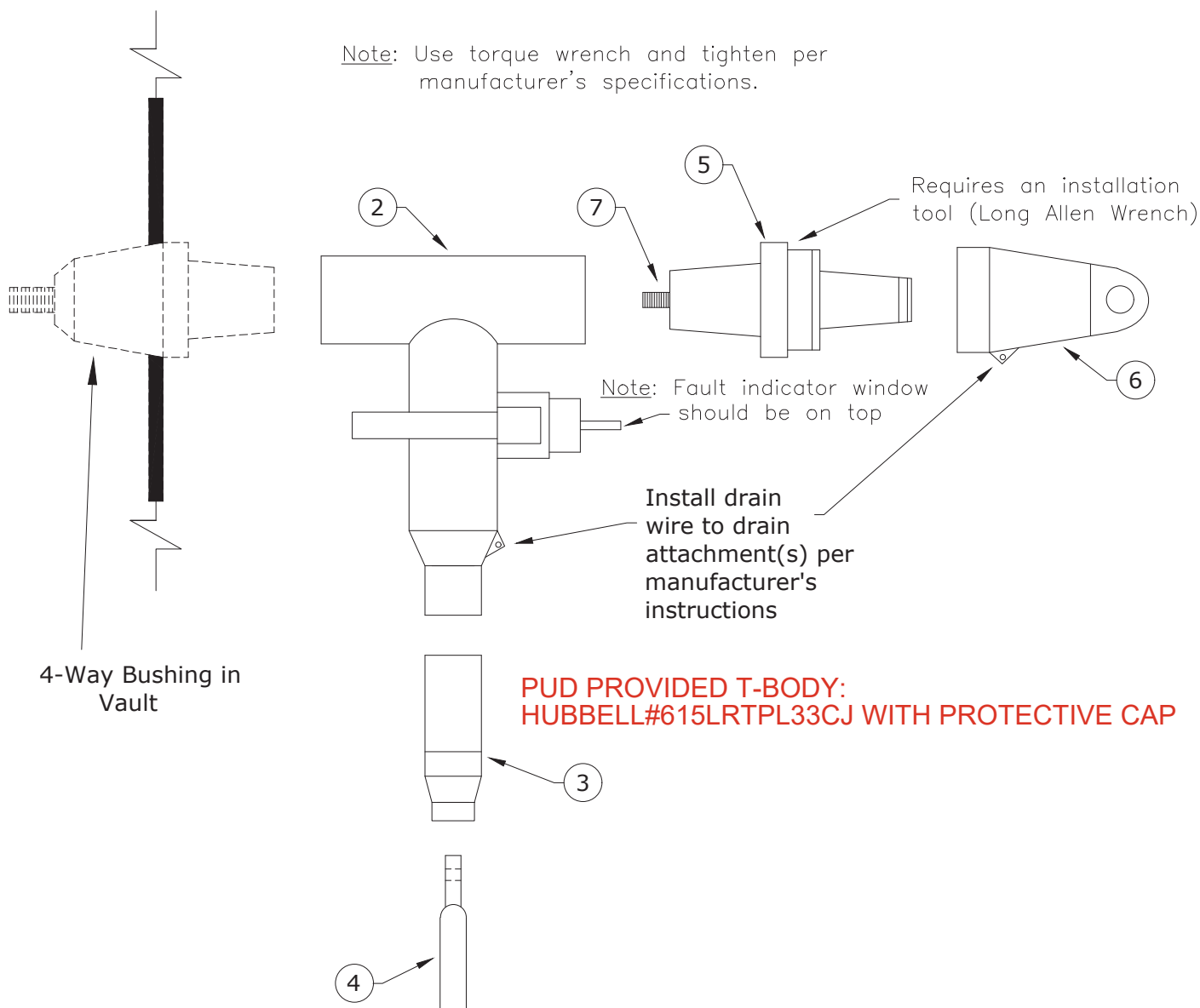
NOTES:
 APPEND "R" SUFFIX TO INDICATE LONGER ELBOW
 FOR REPAIR OR REPLACEMENT

ITEM	MATERIAL	UM6.EL2	UM6.EL2F	UM6.EL6	UM6.EL9
Uhp	Elbow, 200 AMP, load break	1			
Uhp	Fused elbow, 200 AMP, load break		1		
Uhb	Dead break termination, 600 AMP			1	
Uhb	Dead break termination, 900 AMP				1

	ELBOWS		
	AUG 2016		
	RUS		UM6.EL

ASSEMBLY DIAGRAM

ONE ASSEMBLY PER 600A PHASE



ITEM NO.	DESCRIPTION	UM6.EL6.500	
		QTY.	
1	600A Elbow Kit	1	
	<i>Each Kit Consists Of #2 to #7:</i>		
2	<i>Housing, Elbow, 600A</i>	1	
3	<i>Adapter, Cable, 500 MCM</i>	1	
4	<i>Contact, Compression, 500 MCM, Al, Non-Threaded Hole</i>	1	
5	<i>Plug, Loadbreak Reducing Tap, 600A-200A</i>	1	
6	<i>Cap, Protective Insulated, 200A, 15kV</i>	1	
7	<i>Stud, Al, 600A, T-Body to Reducer Plug</i>	1	
8	600A Elbow Sealing Kit	1	



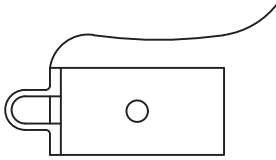
CONSTRUCTION STANDARDS

600 AMP ELBOW - 500MCM CABLE

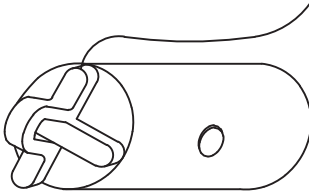
PAGE:
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UM6.EL6.500

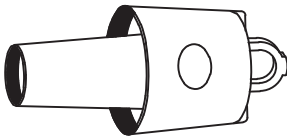


UM6.C2 INSULATED PROTECTIVE CAP
200 AMP LOAD BREAK (FORMERLY UM6-10)

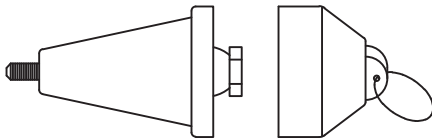


UM6.C6 INSULATED PROTECTIVE CAP
600 AMP DEAD BREAK (FORMERLY UM6-11)

Richards #K656DR - Elastimold #K656DR



UM6.PL2 BUSHING WELL PLUG
200 AMP LOAD BREAK (FORMERLY UM6-7)



UM6.PL6 INSULATING PLUG TEE CONNECTOR
600 AMP DEAD BREAK (FORMERLY UM6-17)

NOTES:

UM6.C (CAP DESCRIPTION)
2 FOR 200 AMP LOAD BREAK CAP
6 FOR 600 AMP DEAD BREAK CAP

UM6.PL (PLUG DESCRIPTION)
2 FOR 200 AMP BUSHING WELL INSERTS
6 FOR 600 AMP TEE CONNECTOR

ITEM	MATERIAL	UM6.C2	UM6.C6	UM6.PL2	UM6.PL6
Uhb	Insulated protective cap, 200 AMP	1			
Uhb	Insulated protective cap, 600 AMP		1		
Uhb	Bushing well plug, 200 AMP			1	
Uhb	Insulating plug tee connector, 600 AMP				1

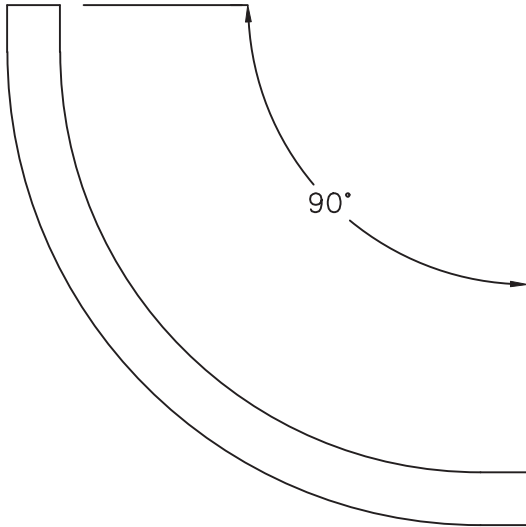


CAPS AND PLUGS

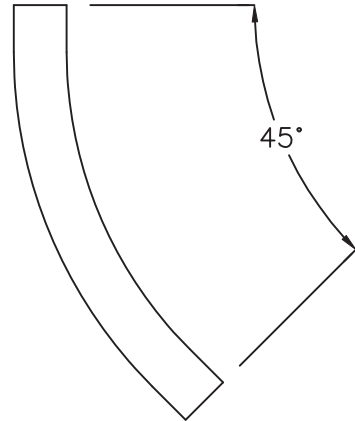
AUG 2016

RUS

UM6.C
UM6.PL

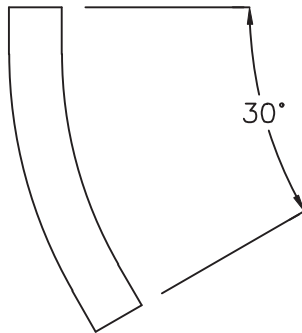


UP7.04.90

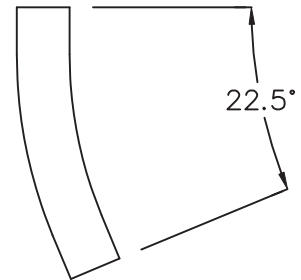


UP7.04.45

.1 = 1"
.2 = 2"
.3 = 3"



UP7.04.30



UP7.04.22

ITEM	QTY.	MATERIAL
	1	Conduit, elbow

DESIGN PARAMETERS:

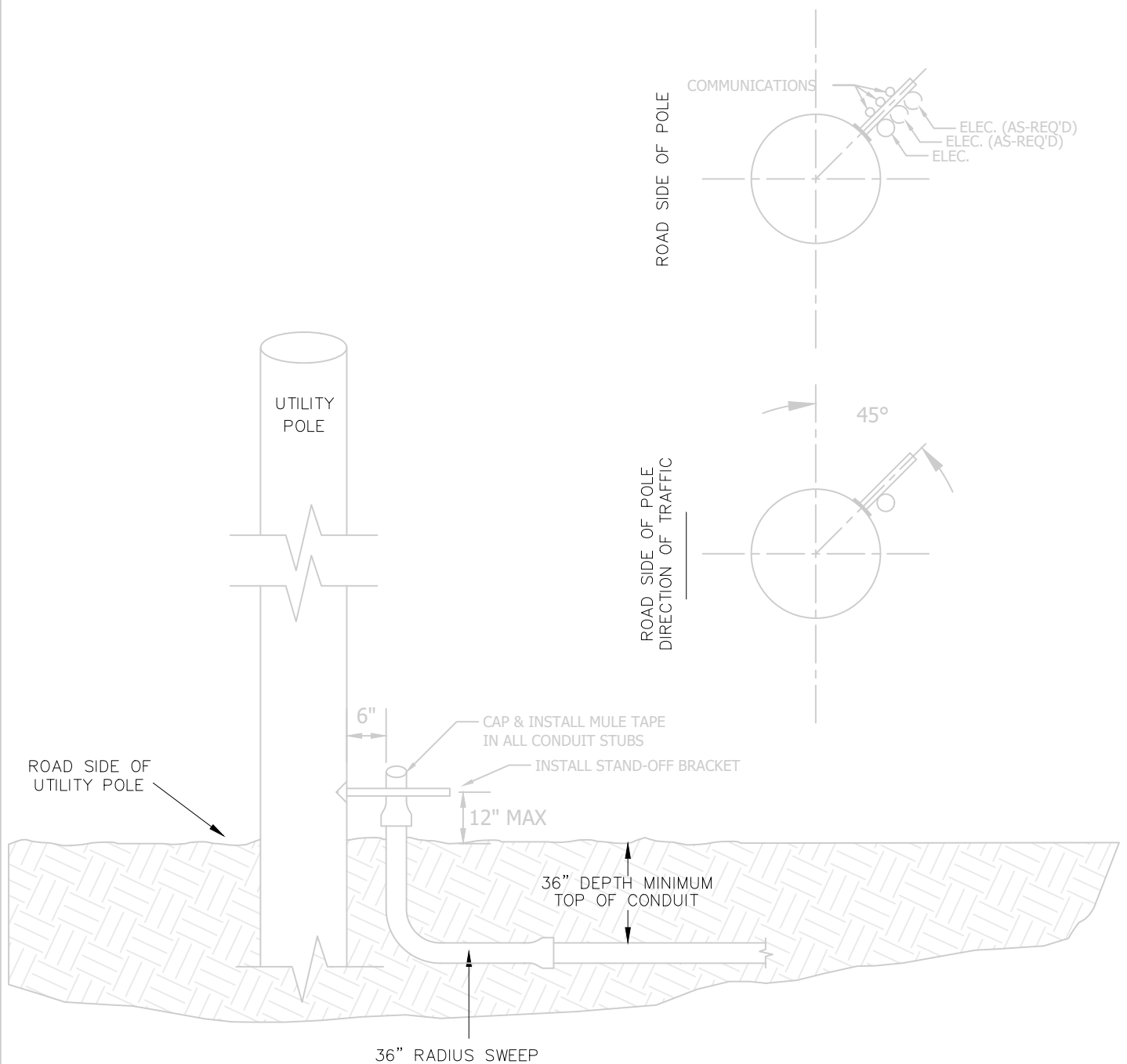
SEE SECTION 8.1 FOR
MINIMUM BENDING RADIUS.

CONDUIT ELBOW

AUG 2016

RUS

UP7.04



NOTES:

1. If an existing standoff/riser bracket exist at the pole, stub conduit at the existing bracket.
2. Install conduit 6" from the utility pole on the back side of the pole to the road. Use quadrant that is opposite of the direction of traffic. Location to be approved by pud.
3. Customer/contractor to install stand-off bracket. Bracket is to be supplied by customer. Use WESANCO W-1010-15-HDGAF or equivalent.
4. Conduit stub is to be level out of the ground.
5. The conduit shall be stubbed out of the ground a minimum of 6" above final grade.
6. The conduit sweep used to stub up the pole shall be a full 36" radius 90 degree sweep.
6. Proof conduit and install sequentially numbered, 2500 lb mule tape in all futures.



CONSTRUCTION STANDARDS

UNDERGROUND POLE RISER CONDUIT STUB

REVISIONS

△/R	DATE	ENGR	OPS
0	3/18/25	JJW	JG

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POLE STUB

WELL TAMPED
NATIVE BACKFILL
SEE NOTE 5

EMBEDMENT DEPTH
(SEE FORMULA)

6" TYP

6" TYP

CRUSHED ROCK
SEE NOTE 1

WOOD POLE

NATIVE EARTH

4" TYP.

Adder Chart

Pole Class	Adder
Class 1 and lower	2.0 feet
Class H1	2.5 feet
Class H2	3.0 feet
Class H3	3.5 feet
Class H4	4.0 feet

Embedment depth = 10% of pole height in feet plus Adder

NOTES:

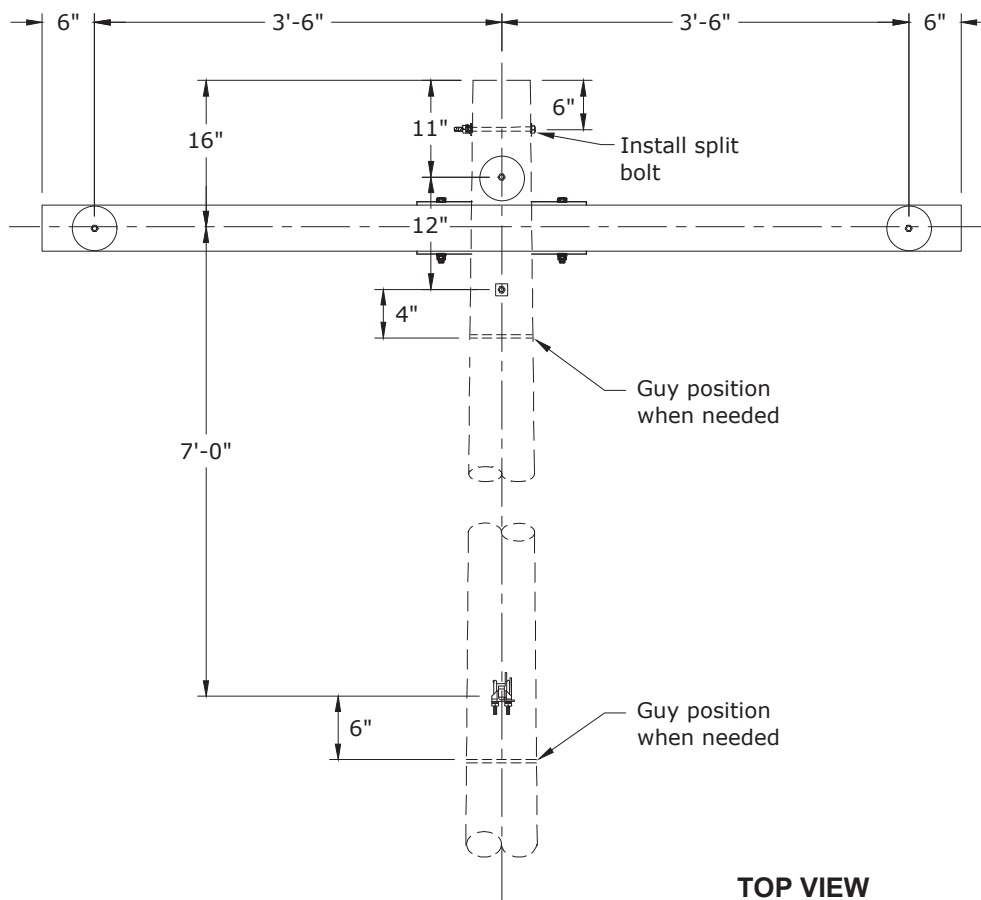
1. CRUSHED ROCK BACKFILL: 3/4-INCH MINUS WITH SUFFICIENT FINES FOR PROPER COMPACTION. IN AREAS WHERE SMALLER FINES ARE AVAILABLE AT COMPARABLE COST, THE USE OF SMALLER FINES IS RECOMMENDED. BACKFILL SHALL BE FREE OF ROOTS, CLAY BALLS AND ORGANIC MATERIALS.
2. BACKFILL SHALL BE PLACED IN 6-IN LIFTS AND PNEUMATICALLY TAMPED.
3. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF CASING IS REQUIRED FOR HOLE EXCAVATION. IF CASING IS REQUIRED, THE CONTRACTOR SHALL PROVIDE CASING AT NO EXTRA COST.
4. WELL TAMPED NATIVE BACKFILL SHALL BE PLACED AT GRADE AROUND THE POLE AS SHOWN.

**CONSTRUCTION STANDARD
POLE HOLE DEPTH
AND BACKFILL
REQUIREMENTS**

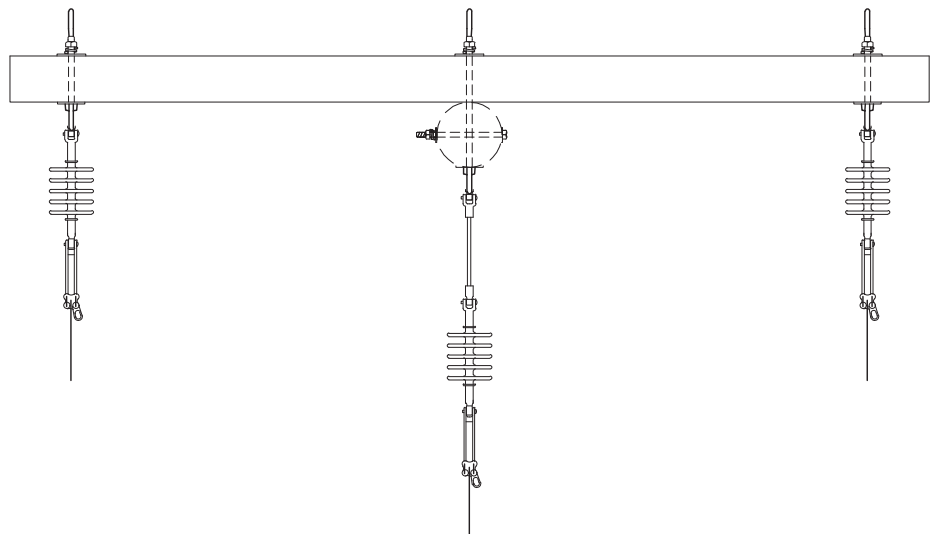
**TM-10-MA01
SHEET 1 OF 1**

DATE	REVISION
7/20/15	0
DESIGN BY: ADB	DRAWN BY: ADB
APPROVED BY: <u>MHK</u>	Drawing No.
DATE: 06/29/15	TM-10-MA01

FRONT VIEW



TOP VIEW



Avian Safe



CONSTRUCTION STANDARDS

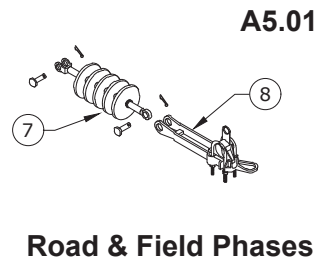
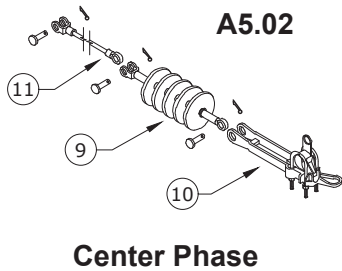
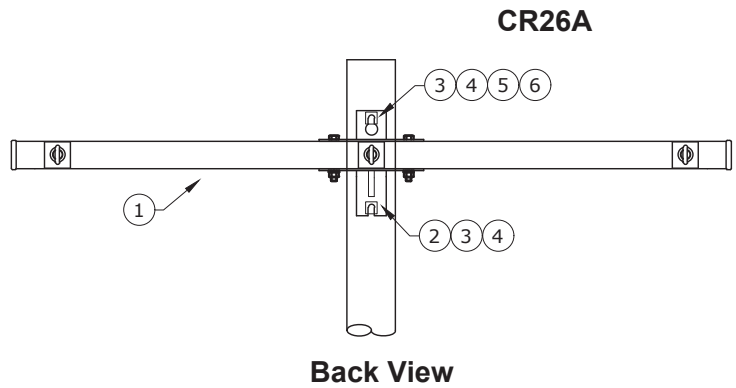
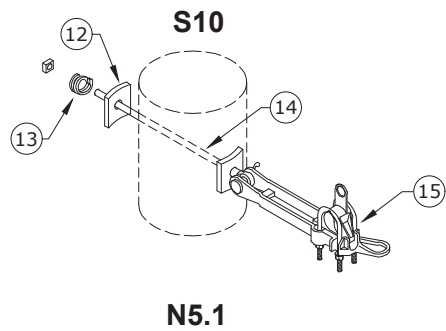
8' PRE-ASSEMBLED DEADEND
336 ACSR MAX WIRE

PAGE:
1 of 2

C5.21F

REVISIONS

△	DATE	ENGR	OPS
△			



ITEM NO.	DESCRIPTION	C5.21F W2.8DEF	
		QTY.	
1	Arm, Deadend Assembly, 8', 3-position, 397 Max	1	
2	Bolt, Machine, 3/4" x 14", Galv., 18,350 lbs Ultimate Tensile	1	
3	Washer, Lock, Spring, Double Coil, Galv., 3/4"	2	
4	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	
5	Nut, Eye Oval 3/4", Galv.	1	
6	Bolt, Machine, 3/4" x 16", Galv., 18,350 lbs Ultimate Tensile	1	
ITEM NO.	DESCRIPTION	A5.01 (2)	
		QTY.	
7	Insulator, Suspension, 15 kV Clevis-Tongue, Polymer Type	2	
8	Clamp, Strain, Distribution, #4 to 336	2	
ITEM NO.	DESCRIPTION	A5.02	
		QTY.	
9	Insulator, Suspension, 15 kV Clevis-Tongue, Polymer Type	1	
10	Clamp, Strain, Distribution, #4 to 336	1	
11	Insulator, Guy Strain, Fiberglass, 20"	1	
ITEM NO.	DESCRIPTION	N5.1	
		QTY.	
12	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	
13	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	
14	Bolt, Eye, 5/8" x 14", Galv., 12,400 lbs Ultimate Tensile	1	
15	Clamp, Strain, Distribution, #4 - 336	1	



CONSTRUCTION STANDARDS

8' PRE-ASSEMBLED DEADEND
336 ACSR MAX WIRE

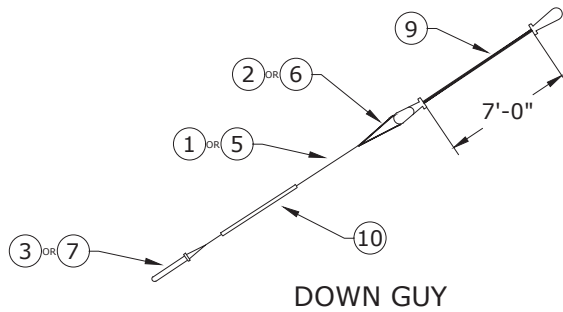
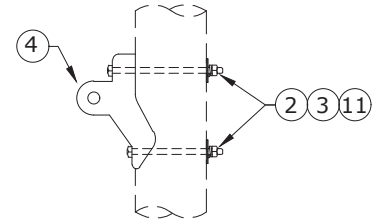
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C5.21F

REVISIONS

DATE	ENGR	OPS

GUY ATTACHMENT



Notes:

1. If more than one guy will be attached to one anchor, an additional long automatic guy grip must be used.

ITEM NO.	DESCRIPTION	GUY ATTACH	
		QTY.	
2	Machine Bolt, 3/4" x 14", 18,350 lbs. Ultimate Tensile	2	
3	Curved Washer, Cast, 4" x 4"	2	
4	Pole Eye Plate, 21,000 lbs. Ultimate Tensile	1	
11	Double Coil Spring Lock Washer 3/4"	2	

ITEM NO.	DESCRIPTION	DOWN GUY	
		QTY.	
5	Guy Wire, 18M	45ft	
6	Guy Grip, 18M, Preformed	1	
7	Guy Grip, 18M, Automatic, Short	1	
9	Insulator, Fiberglass, 2 Wheel, 7', 21,000 lbs. Ultimate, 530kV Wet Flashover	1	
10	Marker, Guy 8' Yellow	1	



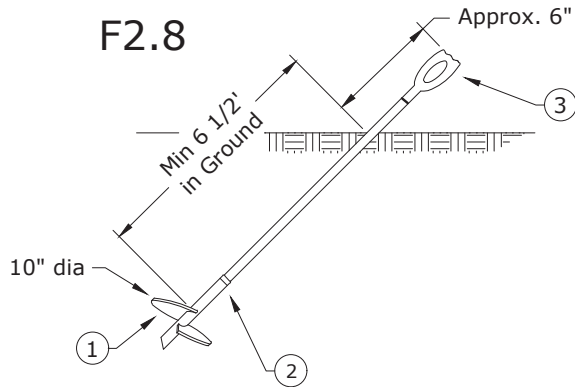
CONSTRUCTION STANDARDS

DOWN GUY

PAGE:
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E1.1

DATE		



ULTIMATE HOLDING CAPACITY		
	F2.8	
Torque	(lbs)	
(ft-lbs)	10" Helix 1" x 7' Rod	14" Helix 1" x 7' Rod + 3 1/2' Rod
500	4,200	7,350
1,000	7,600	10,700
1,500	11,000	14,050
2,000	14,400	17,400
2,500	17,800	20,750
3,000	21,200	24,100
3,500	24,600	27,450
4,000	28,000	30,800
4,500	31,400	34,150
5,000	34,800	36,000

Notes:

1. A minimum of 6 1/2' of the F2.8 anchor/rod from the top of the helix must be in the ground to obtain the rated holding capacity.
2. 8" helix anchors may be used assuming that the requisite holding capacity is met.

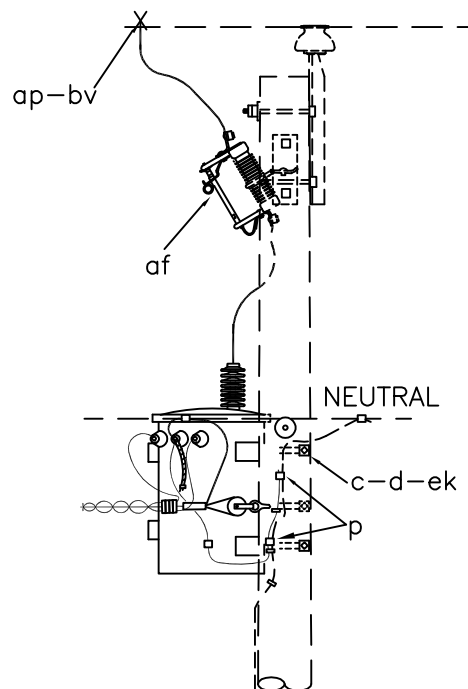
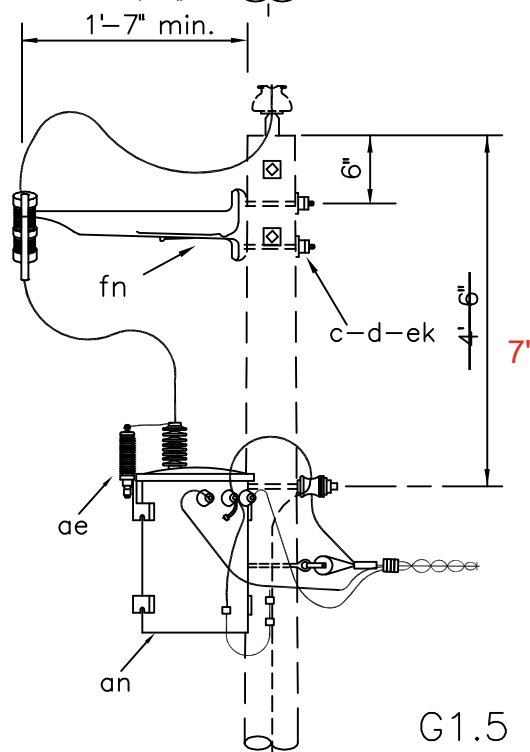
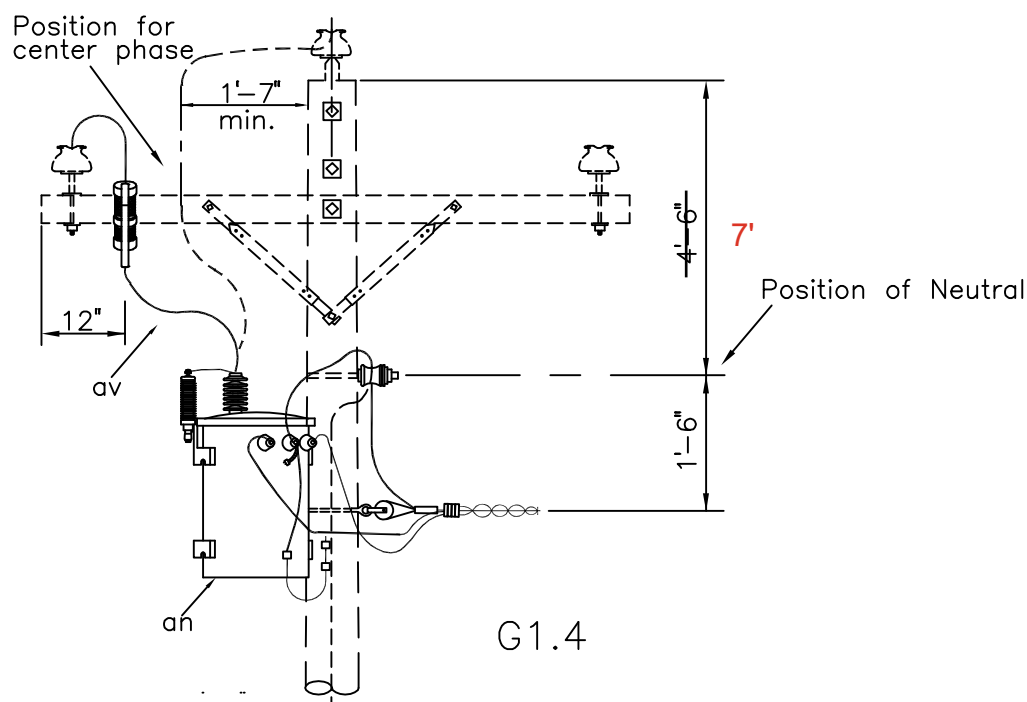
ITEM NO.	DESCRIPTION	F2.8
		QTY.
1	10" Helix Screw Anchor, 15,000 ft-lbs.	1
2	Anchor Rod 1" x 7' - 36,000 lbs. Ultimate Tensile	1
3	Triple Eye Anchor Nut 1"	1



CONSTRUCTION STANDARDS

SINGLE HELIX SCREW ANCHORS

△			
△			



NOTE: Rotate cutout so the blade faces climbing face of pole.

ASSEMBLY: G1		.4	.5
ITEM	MATERIAL	QTY	QTY
c	Bolt, machine, 5/8" x req'd length	2	4
d	Washer, square, 2 1/4"	2	4
p	Connectors, as req'd		
ae	Arrester, surge (9 kV)	1	1
af	Cutout, dist., open (15 kV)	1	1
an	Transformer, 12.47 kV, conventional	1	1

ASSEMBLY: G1		.4	.5
ITEM	MATERIAL	QTY	QTY
ap	Clamp, hot line	1	1
av	Jumpers, stranded, as req'd		
bv	Rod, armor, as req'd		
ek	Locknuts,	2	4
fn	Bracket, extension		1

DESIGN PARAMETERS:

See Guide Drawing "G1.1G"

SINGLE-PHASE, CONVENTIONAL TRANSFORMER
(TANGENT POLE)

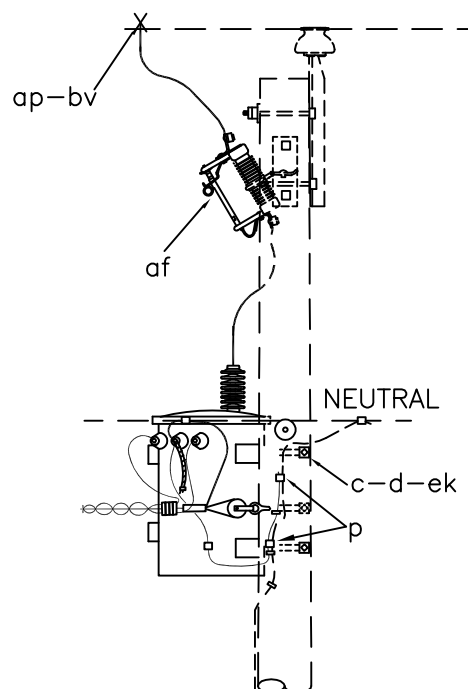
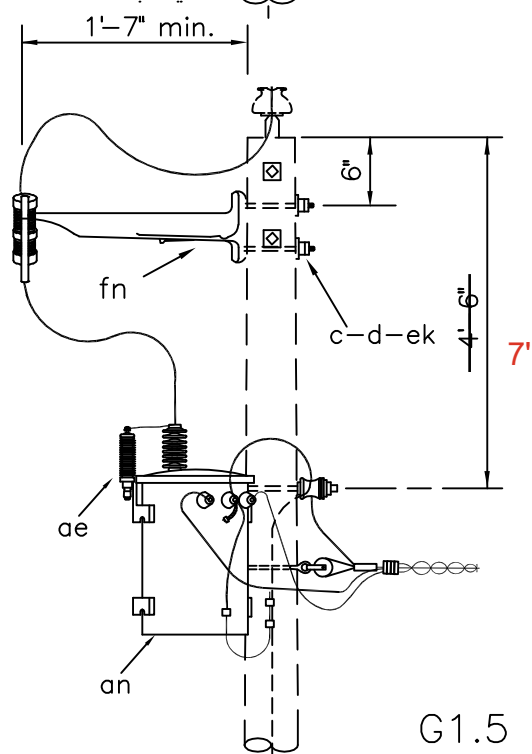
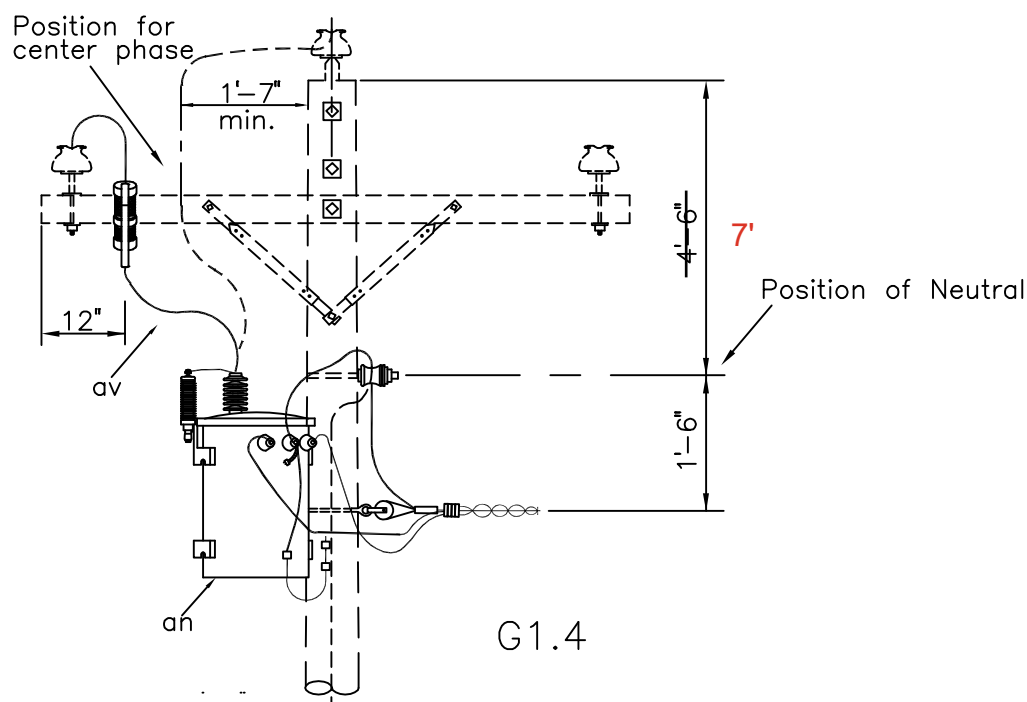
APRIL 2005

RUS

12.47/7.2 kV

G1.4

G1.5



NOTE: Rotate cutout so the blade faces climbing face of pole.

ASSEMBLY: G1		.4	.5
ITEM	MATERIAL	QTY	QTY
c	Bolt, machine, 5/8" x req'd length	2	4
d	Washer, square, 2 1/4"	2	4
p	Connectors, as req'd		
ae	Arrester, surge (9 kV)	1	1
af	Cutout, dist., open (15 kV)	1	1
an	Transformer, 12.47 kV, conventional	1	1

ASSEMBLY: G1		.4	.5
ITEM	MATERIAL	QTY	QTY
ap	Clamp, hot line	1	1
av	Jumpers, stranded, as req'd		
bv	Rod, armor, as req'd		
ek	Locknuts,	2	4
fn	Bracket, extension		1

DESIGN PARAMETERS:

See Guide Drawing "G1.1G"

SINGLE-PHASE, CONVENTIONAL TRANSFORMER
(TANGENT POLE)

APRIL 2005

RUS

12.47/7.2 kV

G1.4

G1.5

