

Note: The bird guard should be installed between the first and second skirt of the transformer bushing.

Item	Item Number	G5-1	G5-3	Item Description
a	2000278	1		Conn HL Gp 8-2-/0-8-1/0
b	*2000197	As Req'd		Cable Ins Riser #6 Cu Sol
c	2000494		1	Guard Bird Lg

*Denotes Grab Bag Item



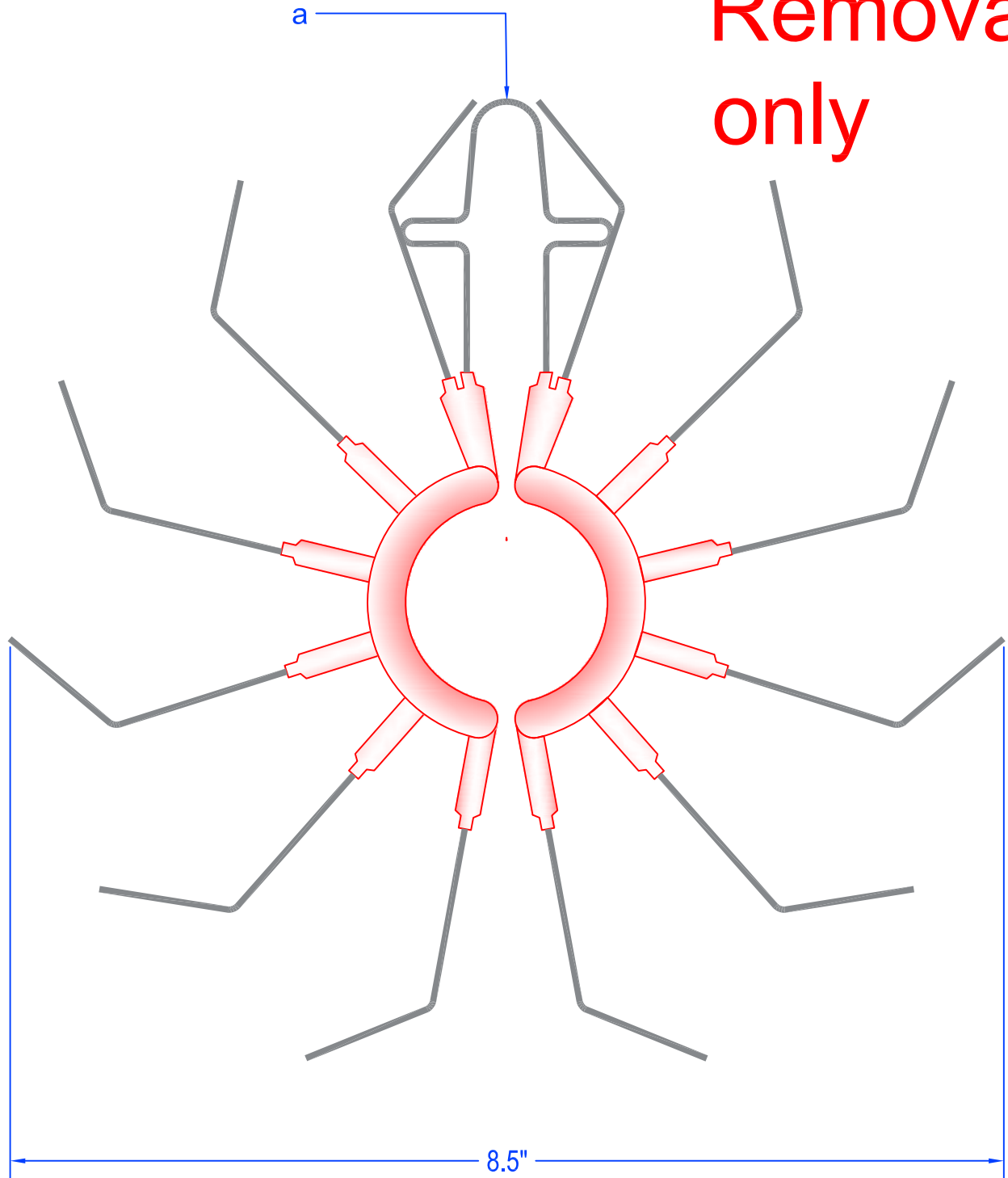
PEDERNALES ELECTRIC
COOPERATIVE, INC.
CONSTRUCTION ASSEMBLY UNIT

**Jumpers and Wildlife Protection
for a Single Transformer**

drawn: SG	approved MJB	date: December 20, 2011
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G5-1 and G5-3

**Removal
only**



Item	Item Number	Item Quantity	Item Description
a	2000498	1	Guard, Electrostatic Animal

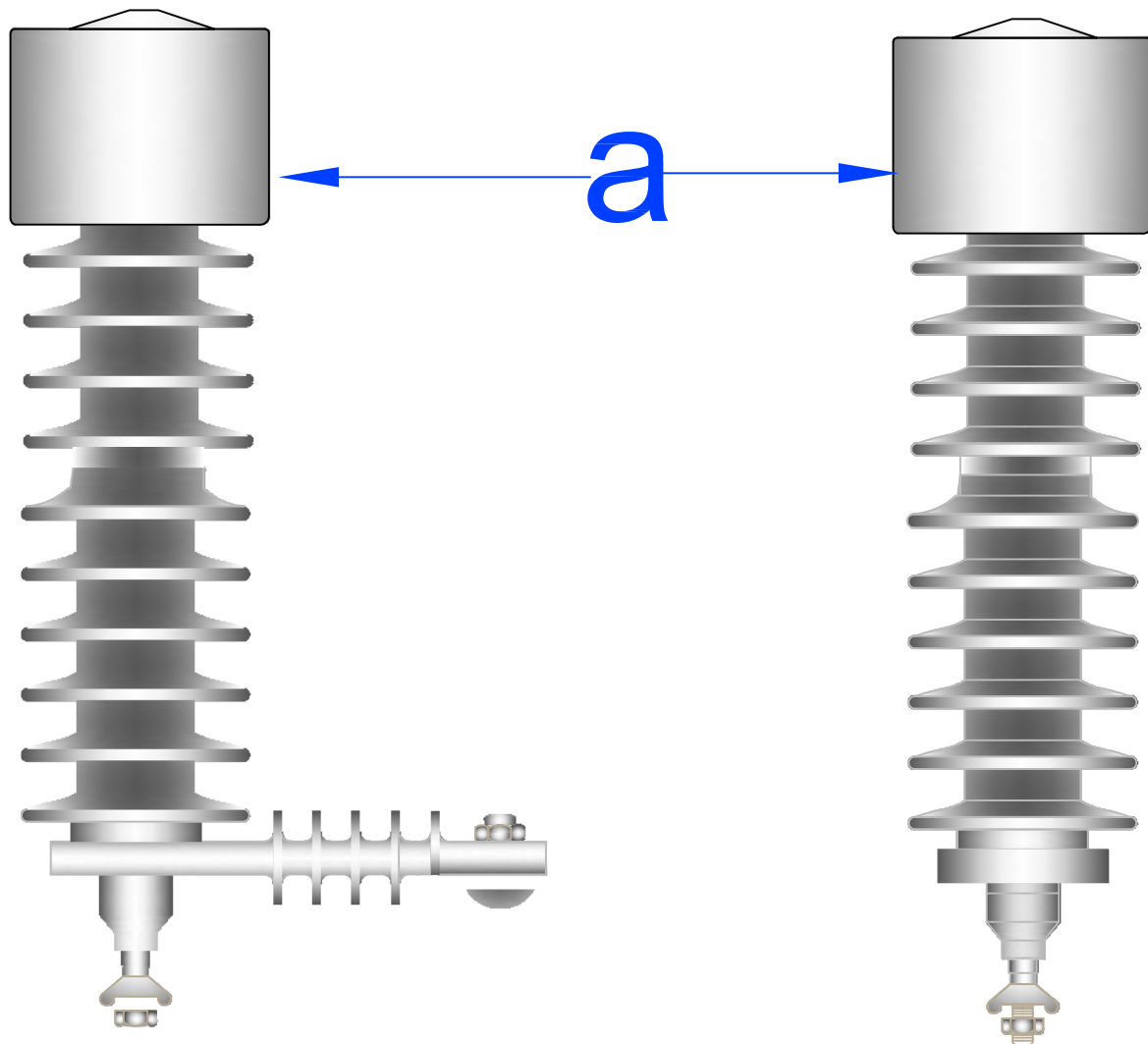


PEDERNALES ELECTRIC
COOPERATIVE, INC.
CONSTRUCTION ASSEMBLY UNIT

Electrostatic Bird Guard

drawn:	approved	date:
SG	MJB	December 19, 2011

G5-2



Does not fit GE Transformers or Siemens Arresters,
bird guard should be installed between the first and
second skirt of arrester.

Item	Item Number	Item Quantity	Item Description
a	2000495	1	Guard Bird, Arrester

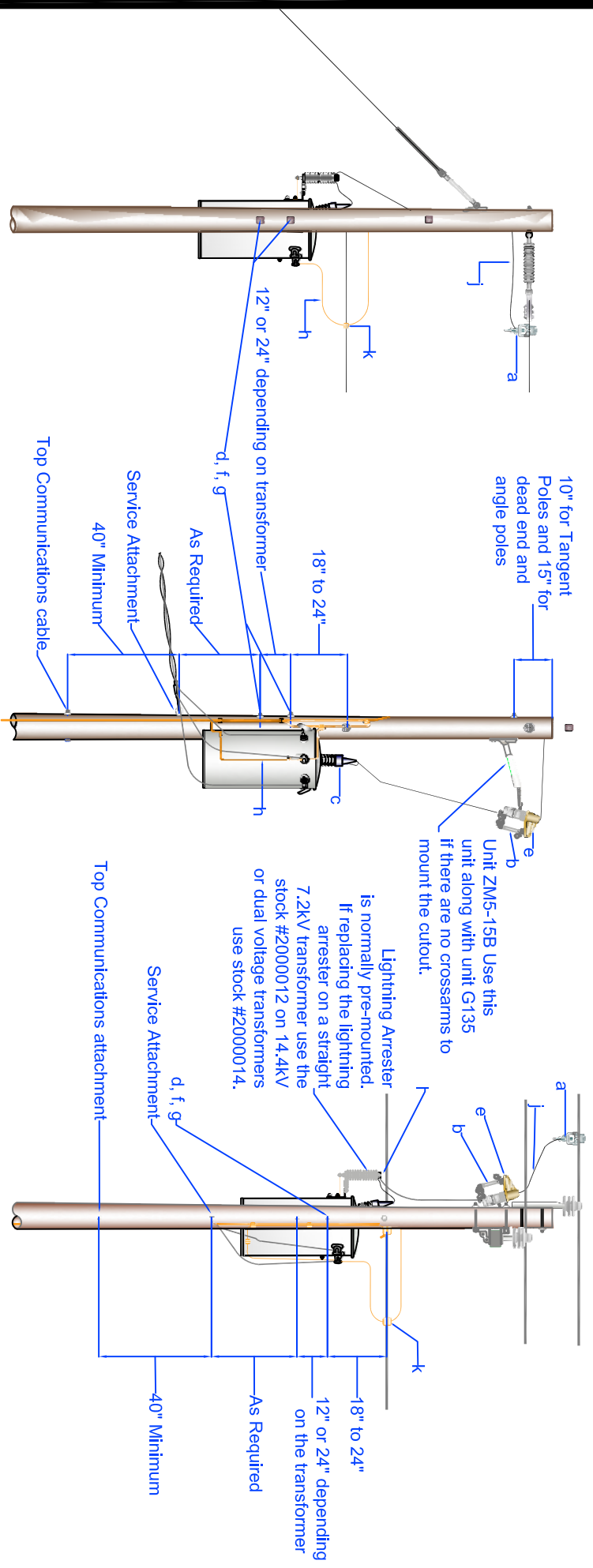


PEDERNALES ELECTRIC
COOPERATIVE, INC.
CONSTRUCTION ASSEMBLY UNIT

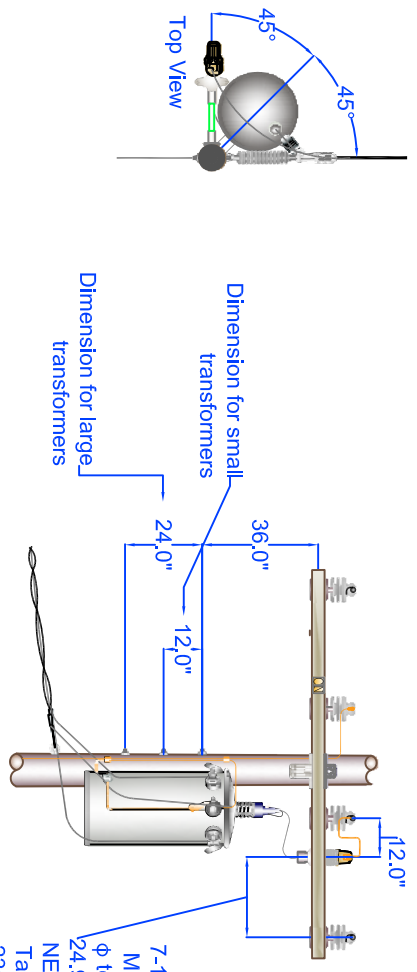
Arrester Wildlife Protection

drawn: JBS	approved MJB	date: January 24, 2011
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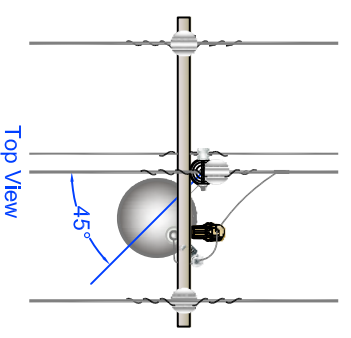
G5-2.1



Note: Do not disconnect transformer neutral without first disconnecting the primary.



1Ø Transformer mounted under the bottom circuit of a multi-circuit line.



PEDERNALES ELECTRIC
COOPERATIVE, INC. CONSTRUCTION
ASSEMBLY UNIT

**1Ø Transformer on a 1Ø or a 3Ø Pole
with Pre-mounted Arrester**
Page 1 of 2

drawn:	approved	date:
JBS	MJB	December 20, 2011

G135

Transformer Fusing Table

KVA	7.2kV	14.4kV
5	1X	1/2X
10	2X	1X
15	2 3/4X	1 1/2X
25	4X	2.5X
37.5	7X	3.5X
50	10X	4X
75	15X	7X
100	20KS	10X
167	30KS	15X
250	50KS	25KS
333	65KS	30KS
500	100KS	50KS

Item	Material Number	Item Quantity	Item Description	Item	Material Number	Item Quantity	Item Description
a	2000278	1	Conn HL Gp 8-2/0-8-1/0	g	*3000240	1	Washer Sq F 2 1/4
b	2000423	1	Cutout 14.4-24.9 100A	h	*2001550	As Req'd	Wire Copper Clad Steel #6 Solid
c	2000494	1	Guard Bird, Lg	j	*2000197	As Req'd	Cable Ins Riser #6 Cu Stranded
d	*	2	Bolt Machine 5/8"	k	*	As Req'd	Connector
e	2000496	1	Guard Fused Cutout Cover	l	2000495	1	Guard Bird, Arrester
f	*3000153	2	Locknut 5/8" M F				

* Denotes Grab Bag Item. All bolt lengths are dependent on pole class.



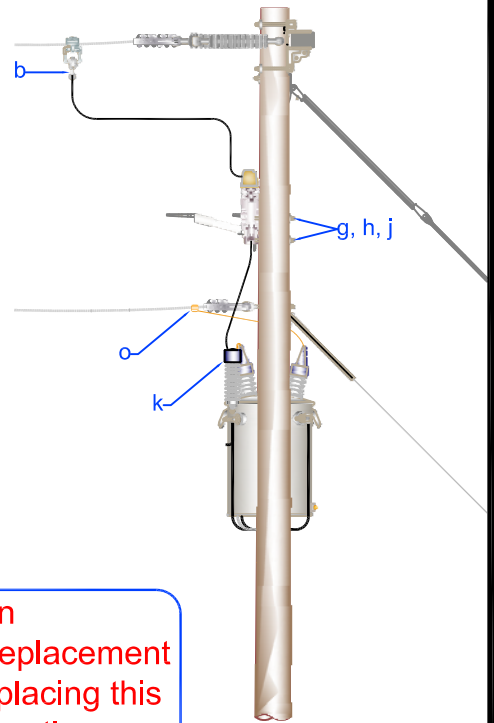
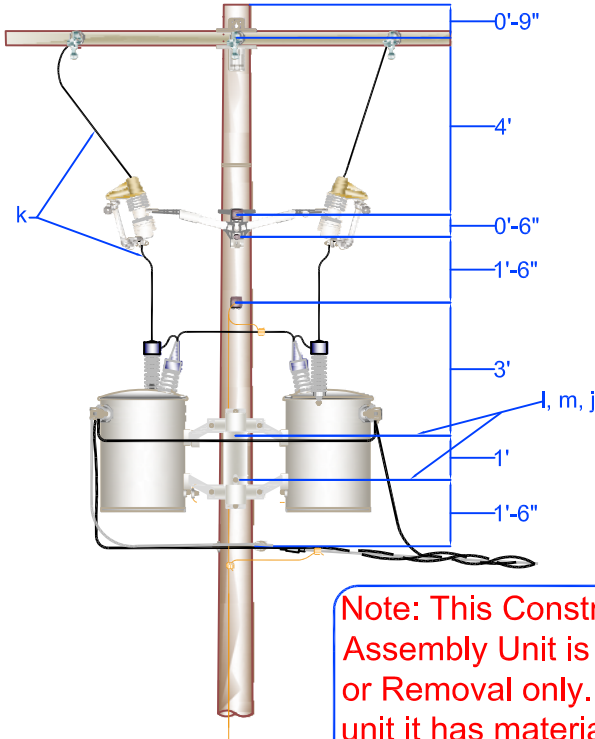
**PEDERNALES ELECTRIC
 COOPERATIVE, INC. CONSTRUCTION
 ASSEMBLY UNIT**

**1Φ Transformer on a 1Φ or a 3Φ Pole
 with Pre-mounted Arrester
 Page 2 of 2**

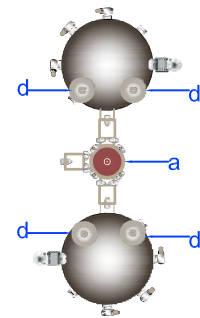
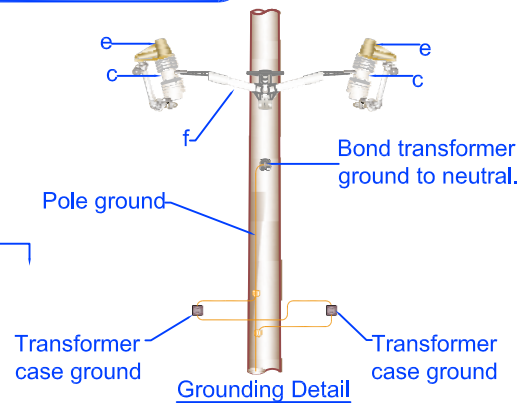
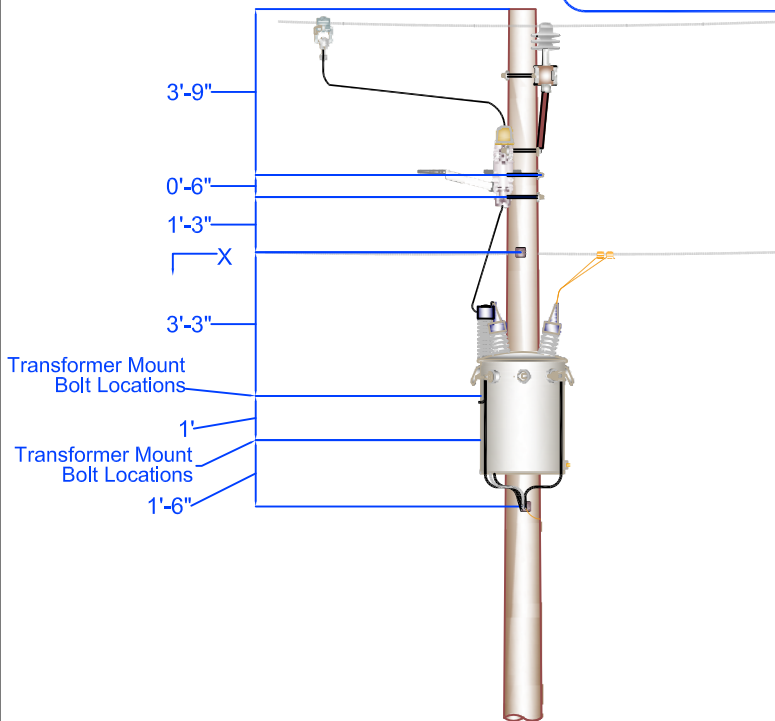
drawn:	approved	date:
JBS	MJB	December 20, 2014

G135

TRANSFORMERS MOUNTED ON 3 ϕ DEADEND POLE



Note: This Construction Assembly Unit is for Replacement or Removal only. If replacing this unit it has material currently approved by the Distribution, Construction, and Design Standards Committee.



TANGENT LINE ASSEMBLY

SECTION X-X

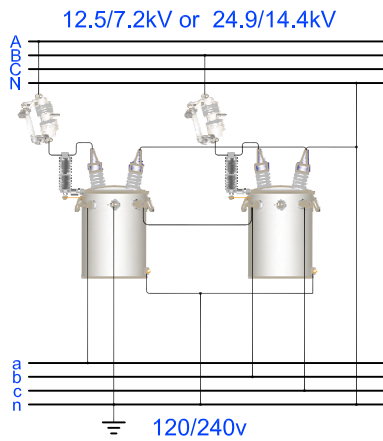


PEDERNALES ELECTRIC COOPERATIVE, INC.
CONSTRUCTION ASSEMBLY UNIT

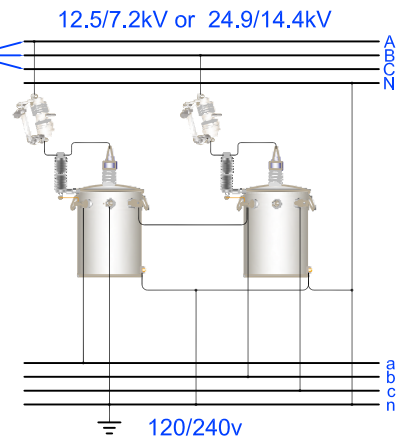
Construction Specification for two transformer cluster mounted with 3 ϕ fiberglass equipment mount bracket. Open wye-delta for 120/240v power loads.
Page 1 of 2

drawn: JBS	approved MJB	date: December 20, 2011
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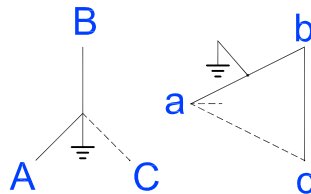
G210



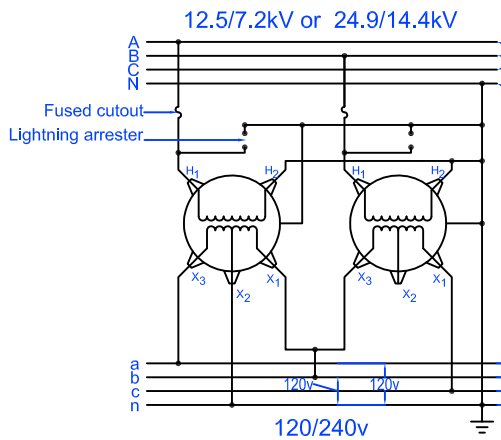
Use which ever two Primary Phases are available or any two if three are available.



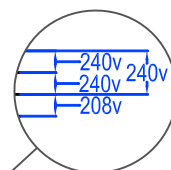
Connections for Double Bushing Transformers



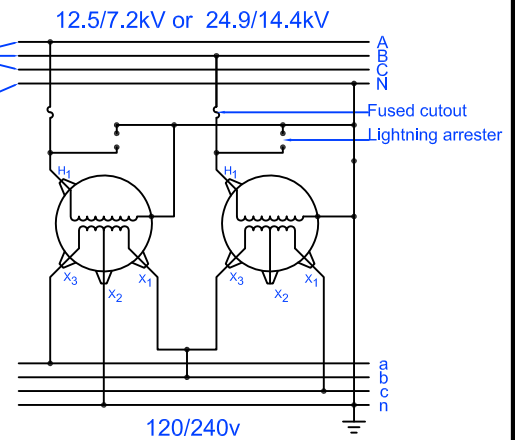
Connections for Single Bushing Transformers



Use which ever two Primary Phases are available or any two if three are available.
12.5/7.2kV or 24.9/14.4 Grounded neutral



Wiring Diagram for Assembly Unit G310 Open Wye-Open Delta



Wiring Diagram for Assembly Unit G310 Open Wye-Open Delta

Note: This Construction Assembly Unit is for Replacement or Removal only. If replacing this unit it has material currently approved by the Distribution, Construction, and Design Standards Committee.

Item	Material Number	Item Quantity	Item Description	Item	Material Number	Item Quantity	Item Description
a	2000158	1	Bracket Mt Trans 3P Wing Type Bracket	h	*3000153	2	5/8" Locknuts
b	2000278	2	Conn HL 8-2/0-8-1/0	j	*3000240	4	Washer, square, 2 1/4"
c	2000423	2	Cutout 14.4-24.9 100A	k	2000495	2	Bird Guard, Arrester
d	2000494	4	Guard Bird, Lg	l	*	2	Bolt Machine 3/4"
e	2000496	2	Guard Fused Cutout Cover	m	*3000151	2	3/4" Locknuts
f	2000151	1	Bracket Equipment Mount FG 3Ph	n	*	As Req'd	Jumpers
g	*	2	Bolt Machine 5/8"	o	*	As Req'd	Connectors

*Denotes Grab Bag Item. All bolt lengths are dependent on pole class.



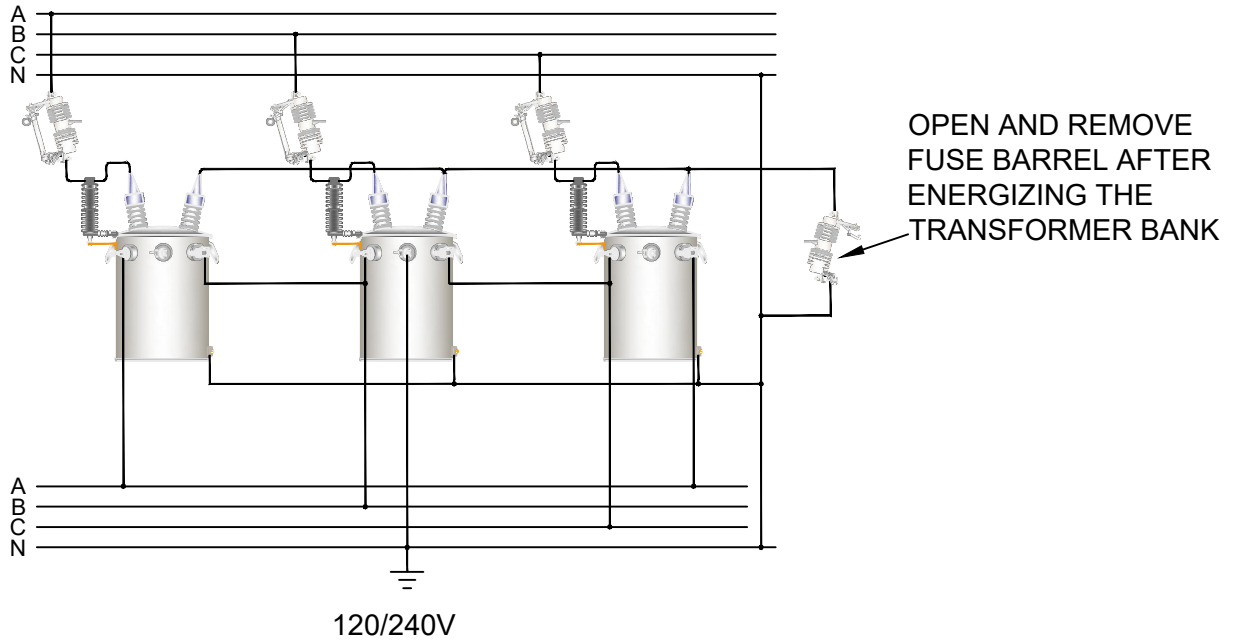
PEDERNALES ELECTRIC
COOPERATIVE, INC.
CONSTRUCTION ASSEMBLY UNIT

Construction Specification for two transformer cluster
mounted with 3Φ fiberglass equipment mount bracket.
Open wye-delta for 120/240v power loads.
Page 2 of 2

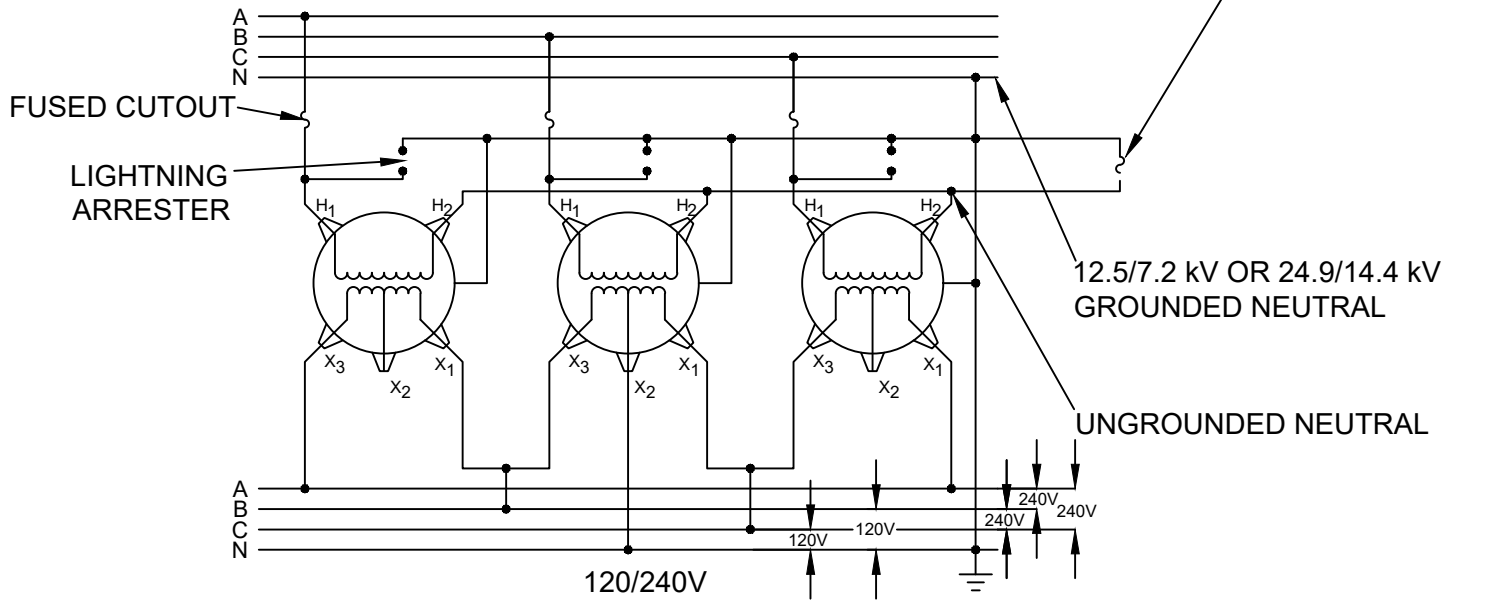
drawn:	approved	date:
JBS	MJB	December 20, 2011

G210

12.5/7.2 kV OR 24.9/14.4 kV



12.5/7.2 kV OR 24.9/14.4 kV



WIRING DIAGRAM FOR ASSEMBLY UNIT G310
UNGROUND-WYE-CENTER TAP GROUNDED DELTA

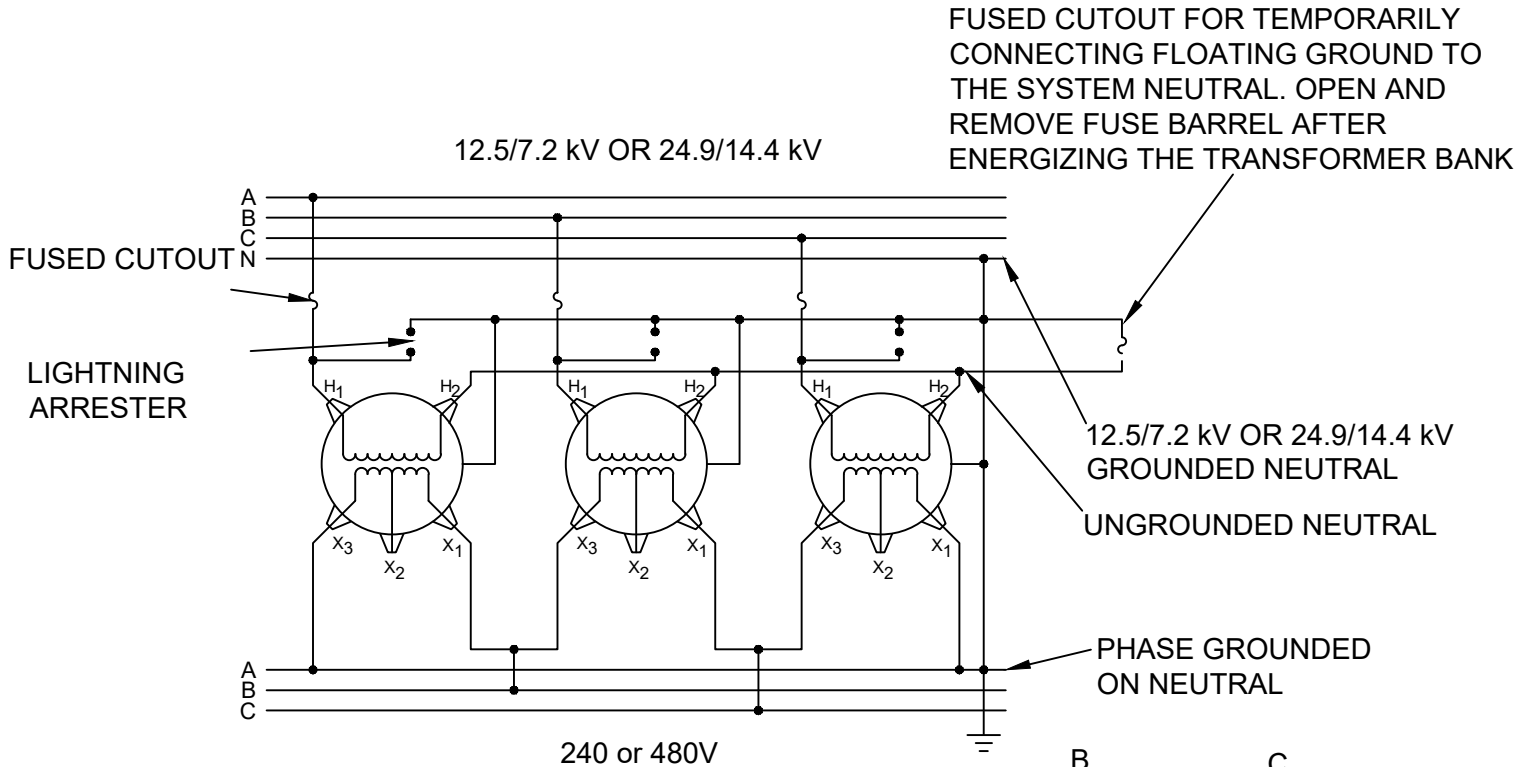
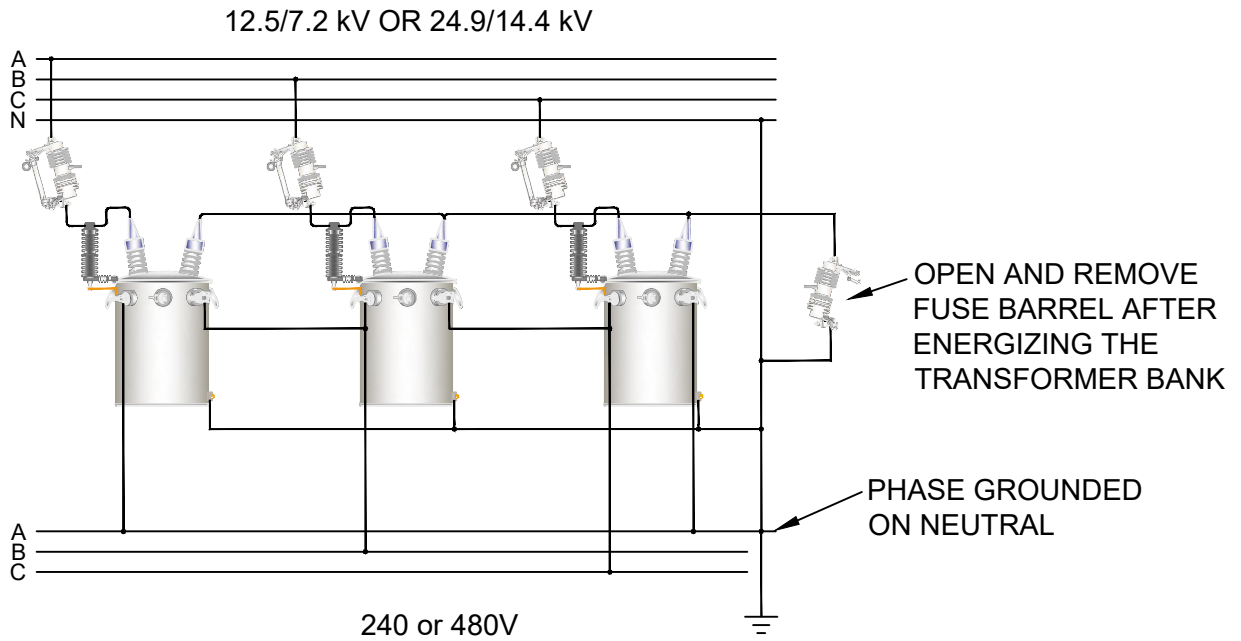
REV	B	DATE	08/09/2021	REVISION	BIRD GUARD ARRESTER 2000495 WAS 2000494	BY	RWC	CHK	SSS	APR	MMG
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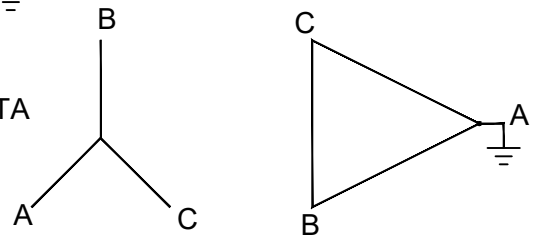
CONSTRUCTION
ASSEMBLY UNIT

3 TRANSFORMERS CLUSTER-MOUNTED WITH 3Ø
FIBERGLASS EQUIPMENT MOUNT BRACKET
120/240V SECONDARY UNGROUND-WYE-CENTER
TAP GROUNDED DELTA PAGE 1 OF 6

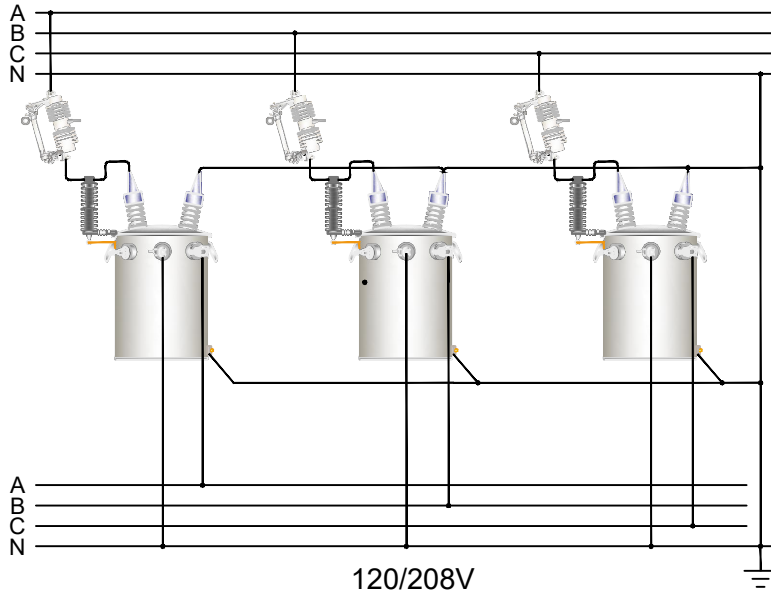
drawn:	approved:	date:	G310
RWC	MMG	08/09/2021	



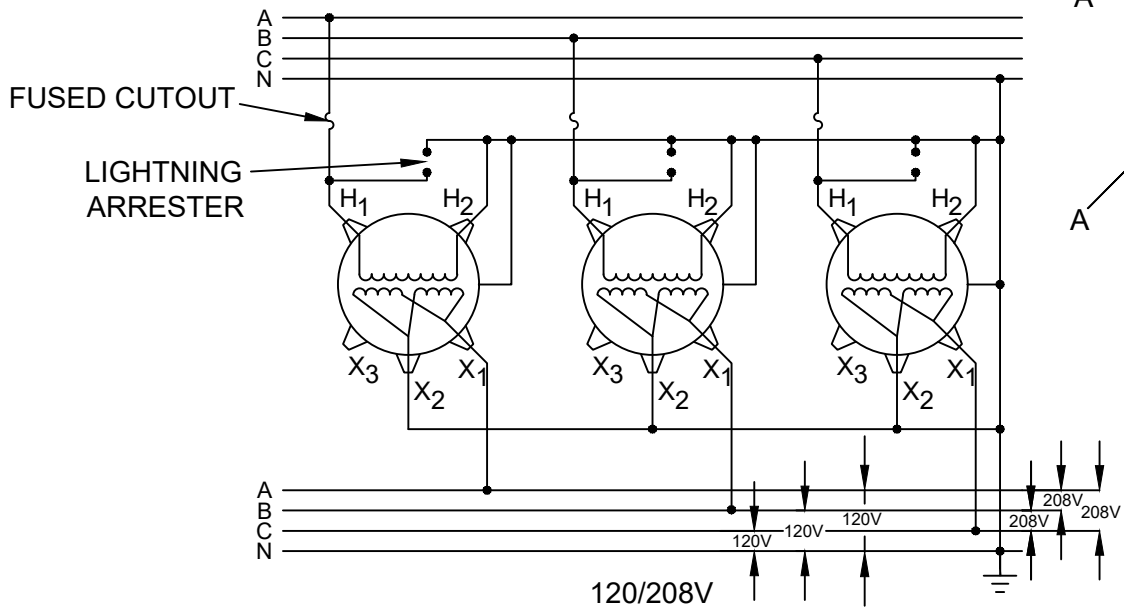
WIRING DIAGRAM FOR ASSEMBLY UNIT G311
UNGROUNDING-WYE-CORNER GROUNDING DELTA



12.5/7.2 kV OR 24.9/14.4 kV



12.5/7.2 kV OR 24.9/14.4 kV



REV B DATE 08/09/2021 REVISION BIRD GUARD ARRESTER 2000495 WAS 2000494 BY RWC CHK SSS APR MMG

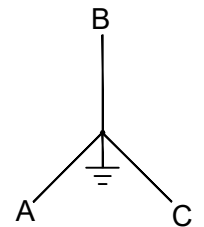
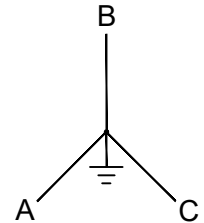
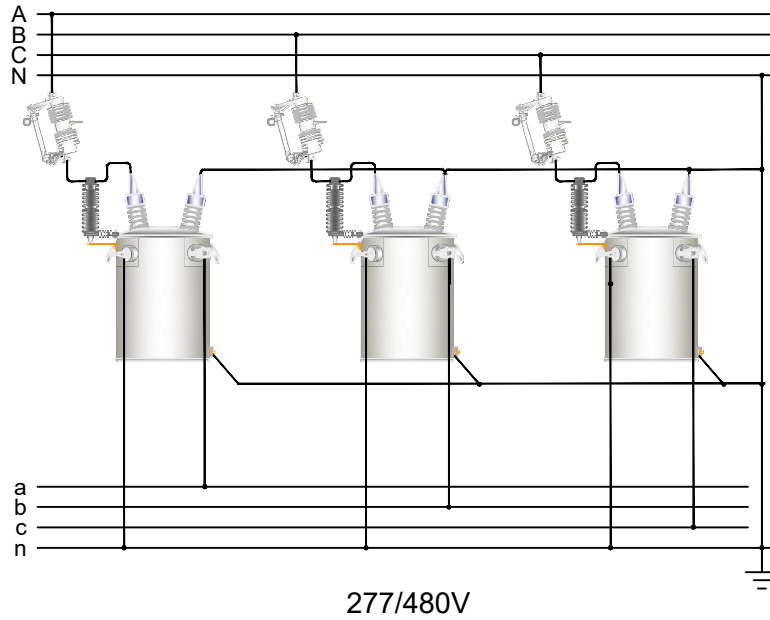


CONSTRUCTION
ASSEMBLY UNIT

3 TRANSFORMERS CLUSTER-MOUNTED WITH 3Ø
FIBERGLASS EQUIPMENT MOUNT BRACKET
120/208V SECONDARY FOUR WIRE GROUNDED
WYE-GROUNDED-WYE PAGE 3 OF 6

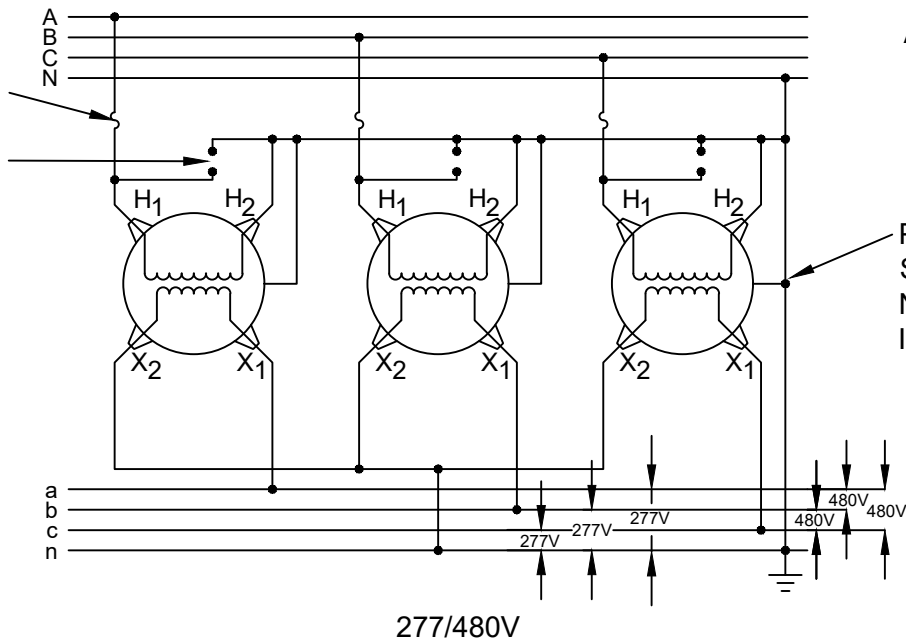
drawn: RWC	approved: MMG	date: 08/09/2021	G312
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12.5/7.2 kV OR 24.9/14.4 kV



12.5/7.2 kV OR 24.9/14.4 kV

FUSED CUTOUT
LIGHTNING ARRESTER



PRIMARY AND SECONDARY NEUTRALS MUST BE INTERCONNECTED

277/480V

REV B DATE 08/09/2021 REVISION BIRD GUARD ARRESTER 2000495 WAS 2000494 BY RWC CHK SSS APR MMG

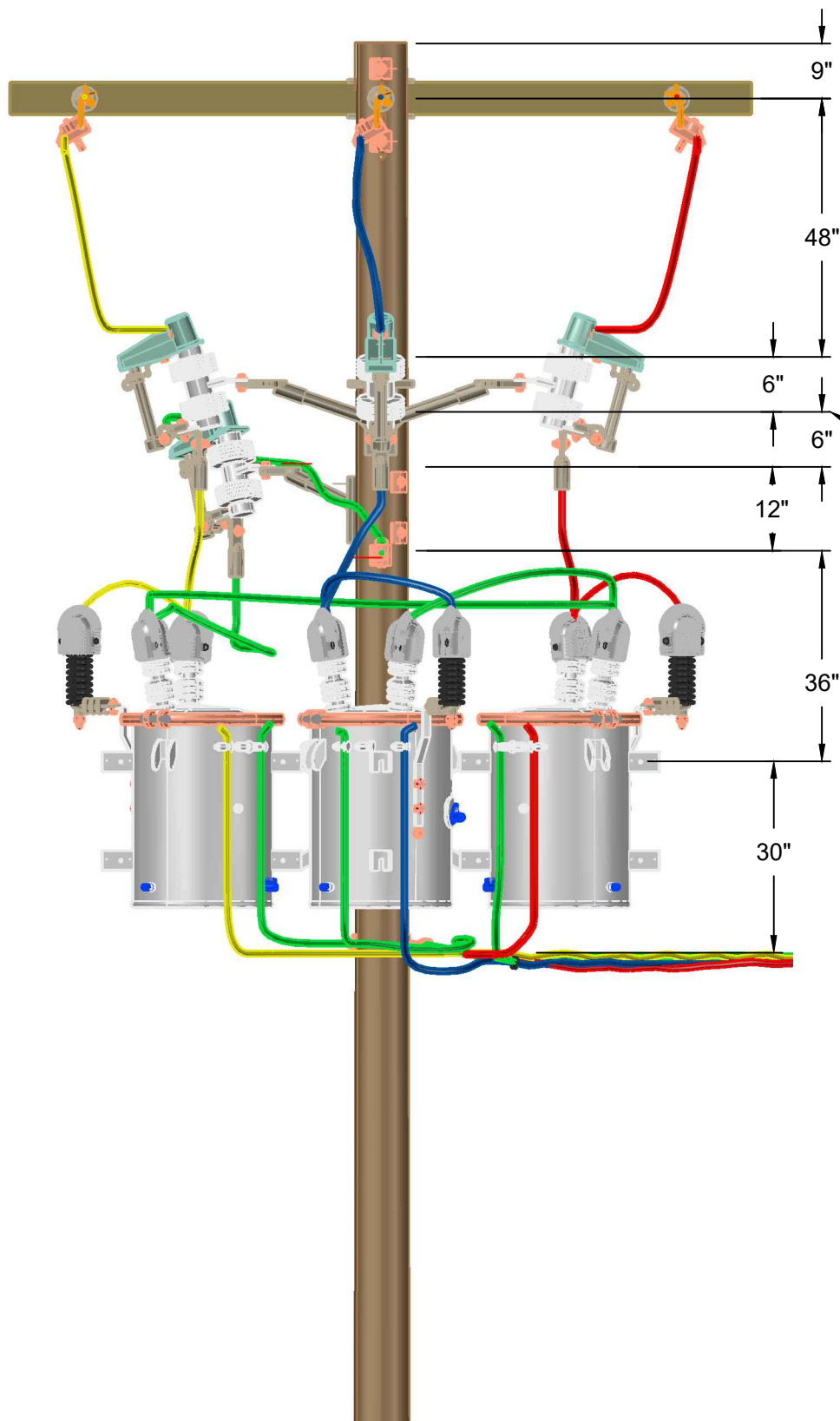


CONSTRUCTION ASSEMBLY UNIT

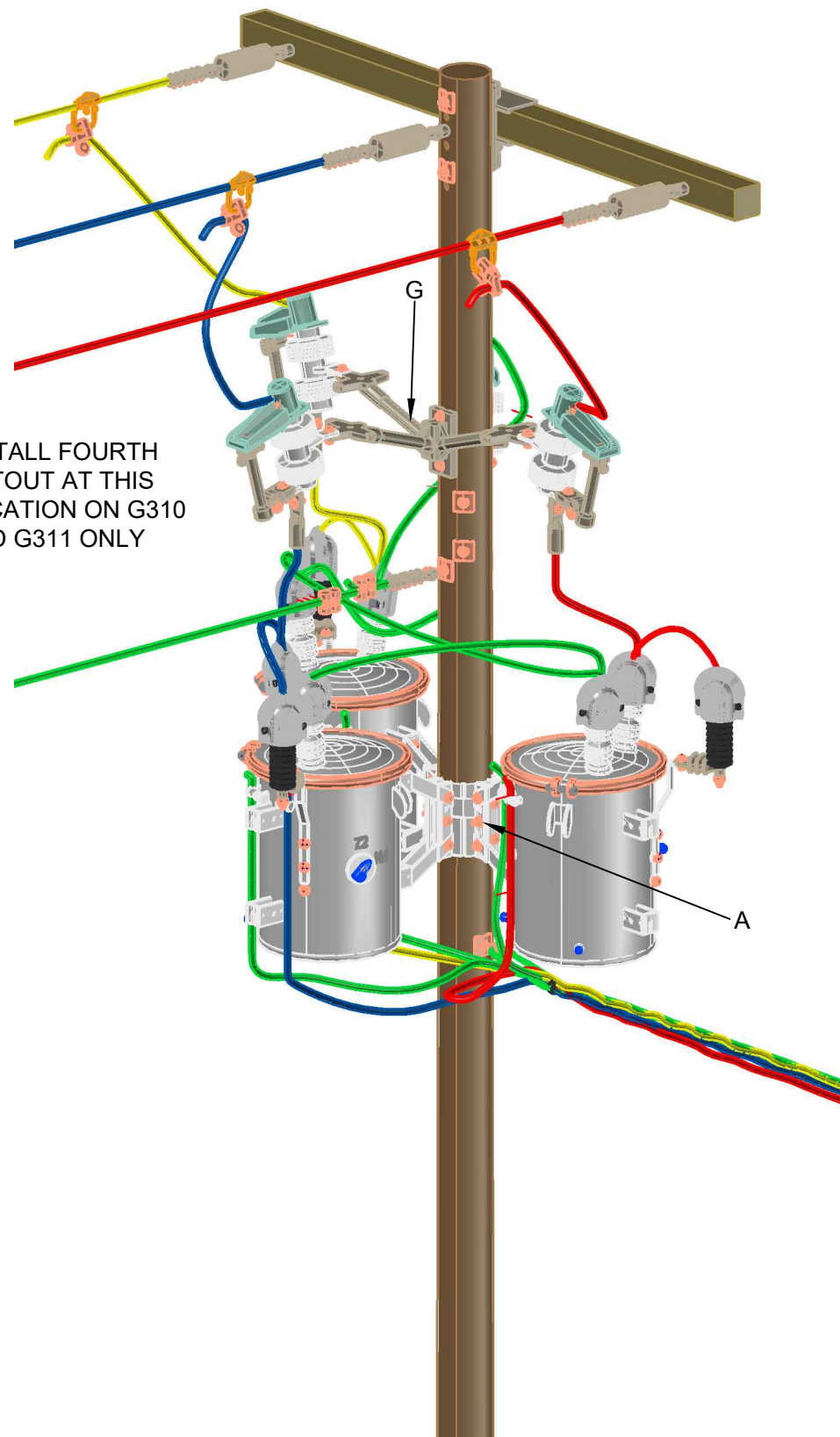
3 TRANSFORMERS CLUSTER MOUNTED WITH 3Ø FIBERGLASS EQUIPMENT MOUNT BRACKET
277/480V SECONDARY GROUND
WYE-GROUNDED-WYE PAGE 4 OF 6

drawn: RWC	approved: MMG	date: 08/09/2021	G313
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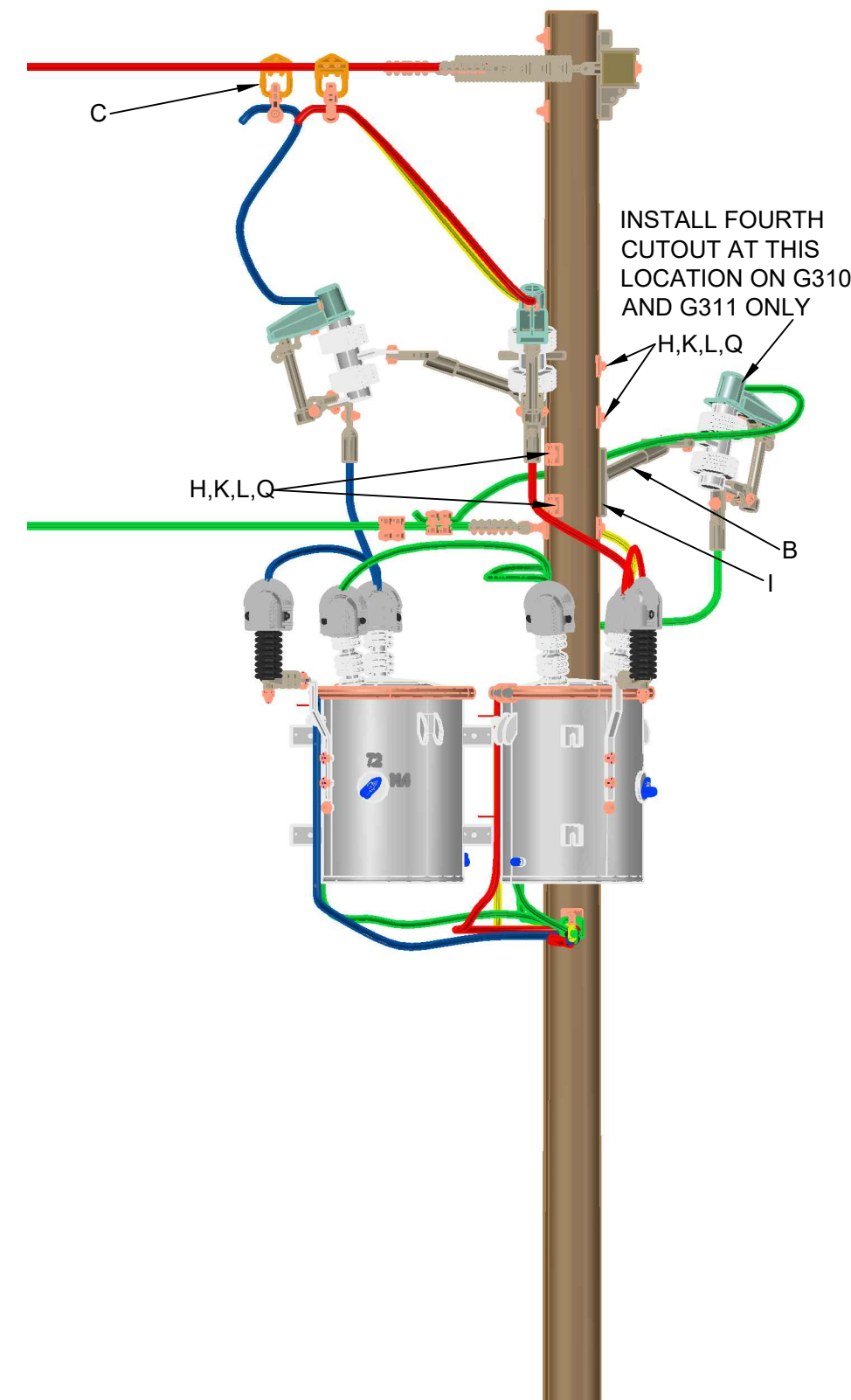
TRANSFORMERS MOUNTED ON 3Ø DEAD-END POLE



FRONT VIEW



ISOMETRIC VIEW
SEE PARTS LIST ON PAGE 6



SIDE VIEW



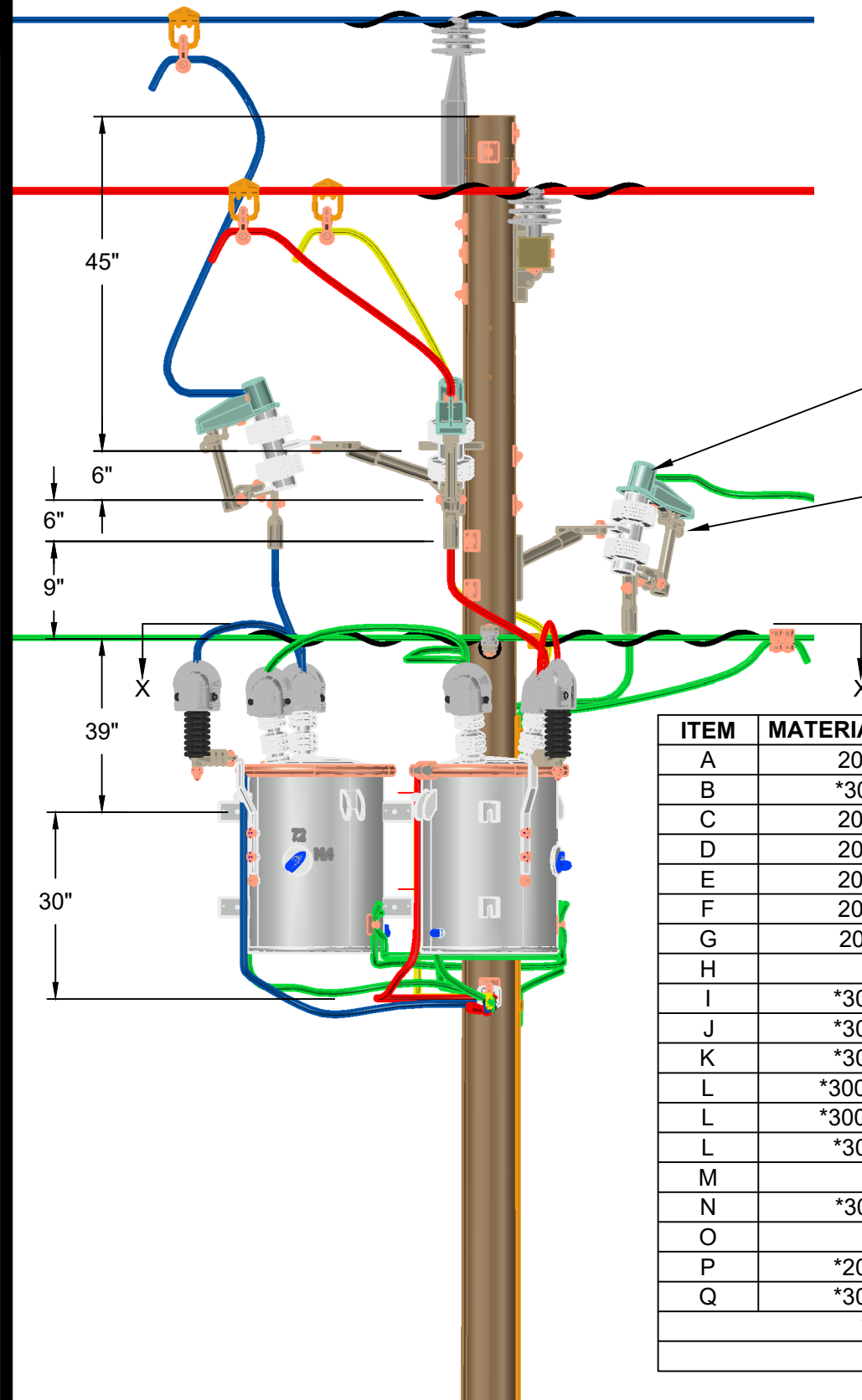
CONSTRUCTION
ASSEMBLY UNIT

REV	DATE	REVISION	BY	CHK	APR	REV	DATE	REVISION	BY	CHK	APR
						B	08/09/2021	BIRD GUARD ARRESTER 2000495 WAS 2000494	RWC	SSS	MMG
						A	12/20/2018	ISSUE FOR CONSTRUCTION	RWC	SSS	MMG

3 TRANSFORMERS CLUSTER-MOUNTED WITH 3Ø
FIBERGLASS EQUIPMENT MOUNT BRACKET
DIMENSIONS FOR MOUNTING ON A DEAD-END POLE
G310, G311, G312 AND G313 PAGE 5 OF 6

drawn:	approved:	date:	G310-G313
RWC	MMG	08/09/2021	

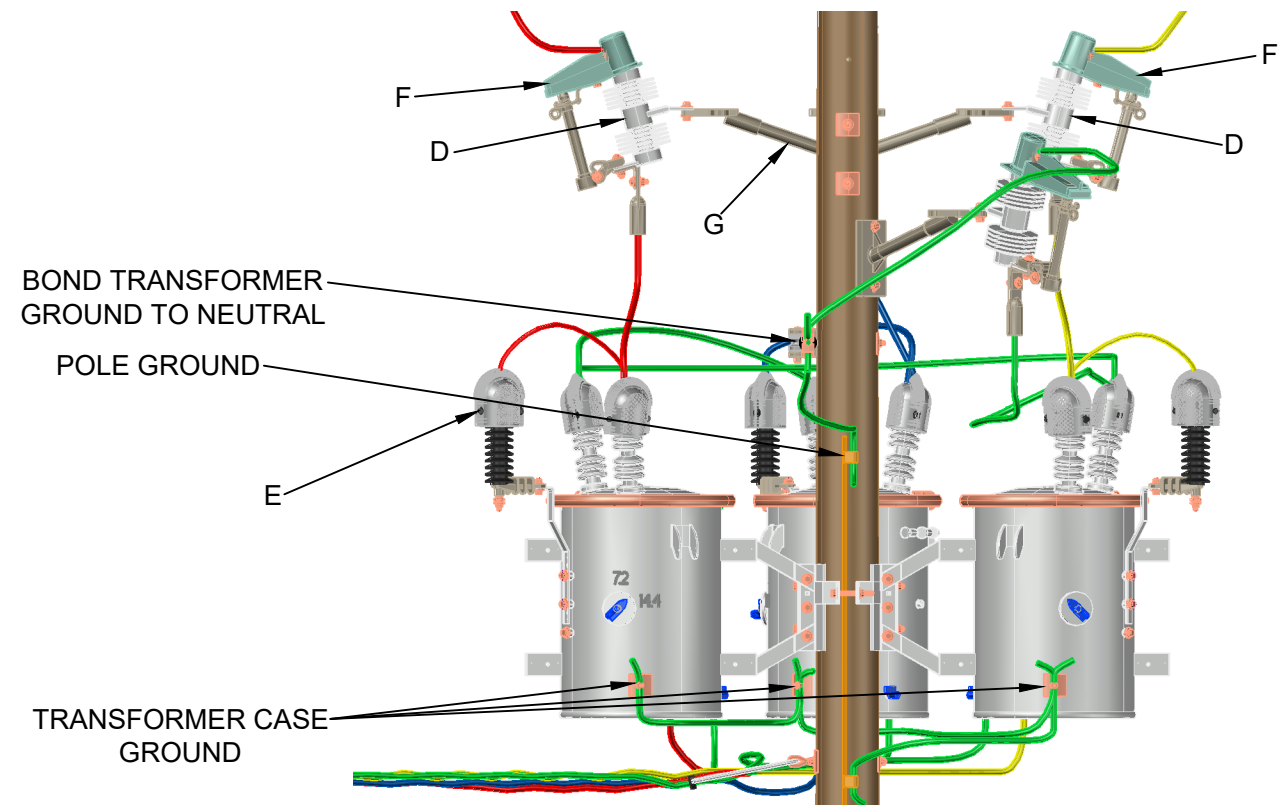
TRANSFORMERS MOUNTED ON 3Ø TANGENT POLE



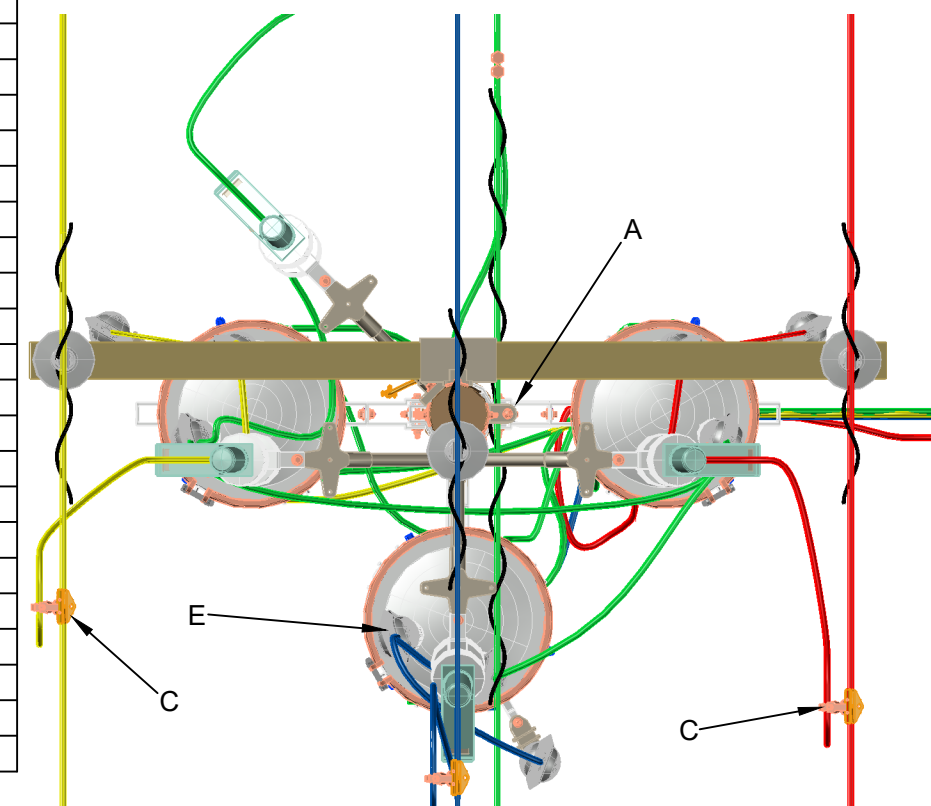
TANGENT LINE ASSEMBLY

ITEM	MATERIAL NUMBER	DESCRIPTION	QUANTITY
A	2000158	BRACKET MT TRANS 3P WING TYPE BRACKET	1
B	*3000021	BRACKET CUTOUT MOUNTING	AS REQ'D
C	2000278	CONNECTOR HL GP 8-2/0-8-1/0	3
D	2000423	CUTOUT 14.4-24.9 kV 100A	**4(3)
E	2000495	BIRD GUARD, ARRESTER	6
F	2000496	GUARD FUSED CUTOUT COVER	**4(3)
G	2000151	BRACKET EQUIPMENT MOUNT FG 3Ø	1
H	*	BOLT MACHINE 5/8"	AS REQ'D
I	*3000188	SCREW LAG 1/2" x 4"	AS REQ'D
J	*3000022	BRACKET 'L'	AS REQ'D
K	*3000153	LOCKNUTS 5/8"	AS REQ'D
L	*3000240 or	WASHER SQUARE FLAT 2 1/4" WITH 11/16" HOLE	AS REQ'D
L	*3000237 or	WASHER SQUARE CURVED FOR 3/4" BOLT 4" WITH 15/16" HOLE	AS REQ'D
L	*3000235	WASHER SQUARE CURVED FOR 5/8" BOLT 3" WITH 13/16" HOLE	AS REQ'D
M	*	BOLT MACHINE 3/4"	AS REQ'D
N	*3000151	LOCKNUT 3/4" MF	AS REQ'D
O	*	JUMPERS	AS REQ'D
P	*2000347	CONNECTOR SPLIT BOLT GP 6	AS REQ'D
Q	*3000227	WASHER COIL 5/8"	AS REQ'D

*DENOTES "GRAB BAG" ITEM. ALL BOLT LENGTHS DEPEND ON POLE CLASS.
 **QUANTITIES IN PARENTHESES ARE FOR GROUNDED WYE SYSTEMS.



GROUNDING DETAIL



SECTION X-X



CONSTRUCTION
ASSEMBLY UNIT

REV	DATE	REVISION	BY	CHK	APR	REV	DATE	REVISION	BY	CHK	APR
						B	08/09/2021	BIRD GUARD ARRESTER 2000495 WAS 2000494	RWC	SSS	MMG
						A	04/22/2021	ISSUE FOR CONSTRUCTION	RWC	SSS	MMG

3 TRANSFORMERS CLUSTER MOUNTED WITH 3Ø
FIBERGLASS EQUIPMENT-MOUNT BRACKET
DIMENSIONS FOR MOUNTING ON A DEAD-END POLE
G310, G311, G312 AND G313 PAGE 6 OF 6

drawn:	approved:	date:	G310-G313
RWC	MMG	08/09/2021	